

ABSTRACT

Title of Dissertation: “SEND IN THE RESERVES!” THE
DEVELOPMENT AND SIGNIFICANCE OF
THE RESERVE DILEMMA IN MILITARY
HISTORY

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2021

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This dissertation examines the origins and evolution of the trained reserve—a 19th century military institution that most states continue to depend upon for national defense. In doing so, it argues that the rising complexity, speed, and lethality of warfare over the last century challenged the viability of industrial era reservist personnel and training policies, which many states retain today. Such policies have largely proven incapable of providing reservists with the time and resources to keep up with changing technical and tactical character of warfare, as evidenced by the poor performance of many reservists in the conflicts of the past century. However, armies preparing for large-scale combat operations generally could not reduce their reliance on reservists because a combination of political, military, and socio-economic constraints and compulsions. Namely, they lacked the financial means, military resources, and, in some cases, the political capital to rely solely on full-time soldiers

who often are better resourced to keep up with the rising complexity of modern warfare compared to part-time reservists.

Thus, as this dissertation reveals using archival sources, recently declassified intelligence reporting, and a host of other printed primary sources, armies confronted a dilemma regarding reserve policy over the past century. They could, as the U.S. Army has done since the 1970s, increase reserve training standards, but risk incurring higher overhead costs or sparking a political backlash from reservists who often resisted efforts to increase their military obligations. Alternatively, they could reduce their dependency on reservists, as the Israel Defense Forces have done since the late 1980s. But doing this threatened to overstretch active duty units who, as this dissertation shows, generally cannot fight protracted or large-scale wars without reservists. In short, this dissertation shows how the dynamics of reserve policymaking and the combat performance of reservists can—and often had—significant political, strategic, operational, and tactical effects throughout recent history.

“SEND IN THE RESERVES!” THE DEVELOPMENT AND SIGNIFICANCE OF
THE RESERVE DILEMMA IN MILITARY HISTORY

by

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Dissertation submitted to the Faculty of the Graduate School of the
University of Maryland, College Park, in partial fulfillment
of the requirements for the degree of
Doctor of Philosophy
2021

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List of Abbreviations and Terms

ABCT – Armored Brigade Combat Team

AEF – American Expeditionary Force (WWI)

AGF – U.S. Army Ground Forces (WWII)

ALA – Arab Liberation Army

APC – Armored Personnel Carrier

ANG – The Air National Guard

ARNG – Army National Guard

ATGM – Anti-Tank Guided Missile

ARTEP – Army Training and Evaluation Program

Auftragstaktik – The German word for mission-type tactics. This refers to the military command philosophy in which a commander provides his/her subordinates with the desired end state for a mission but leaves the specifics for how to achieve it up to those subordinates. In the United States Army, this is referred to as Mission Command.

AWOL – Absent Without Leave

BCA – Budget Control Act

BCT – Brigade Combat Team

BEF – British Expeditionary Force

BG – Brigadier General

C2 – Command and control

C3 – Command, control, and communications

CBO – Congressional Budget Office

CBW – Campaign Between the Wars Doctrine

CCC – Civilian Conservation Corps

CENTCOM – U.S. Central Command (responsible for Middle East and parts of North Africa, Central Asia, and South Asia).

CGS – Chief of the General Staff (top Israeli military officer)

CGSC – Command and General Staff College

CGSS – Command and General Staff School

CIA – Central Intelligence Agency

CNGB – Chief of the National Guard Bureau

CRS – Congressional Research Service

CSA – Chief of Staff of the U.S. Army

DA – Department of the United States Army

DIA – U.S. Defense Intelligence Agency

Doctrine – The fundamental principles, concepts, techniques, and procedures an army employs to achieve its tactical, operational, and strategic objectives.

DOD – U.S. Department of Defense

EAF – The Egyptian Air Force

FSR – Field Service Regulation

FY – Fiscal Year

GAO – The U.S. Government Accountability Office

GDP – Gross Domestic Product

Global Positioning System – A U.S. operated constellation of satellites that provides navigational data to GPS receivers operated by individuals and/or systems on land, air, or sea.

GNP – Gross National Product

IAF – Israeli Air Force

IBCT – Infantry Brigade Combat Team

IDA – Institute for Defense Analysis

IDF – Israel Defense Forces

IED – Improvised Explosive Device

IFV – Infantry Fighting Vehicle

IISS – The International Institute for Strategic Studies

IRGC – Islamic Revolutionary Guards Corps

ISR – Intelligence, Surveillance, and Reconnaissance

Intifada – Arabic for “shaking off.” Refers to two Palestinian uprisings against Israel: the First Intifada (1987 to 1993) and the Second Intifada/al-Aqsa Intifada (2000 to 2005).

LTC – Lieutenant Colonel

LTG – Lieutenant General

JCS – Joint Chiefs of Staff

JRTC – Joint Readiness Training Center

Landwehr - A Prussian militia organization.

MBT – Main Battle Tank

MCIA – U.S. Marine Corps Intelligence Activity

METs – Mission Essential Tasks

MG – Major General

NA – The National Army

NATO – The North Atlantic Treaty Organization

NCFA – National Commission on the Future of the U.S. Army

NCO – Non-Commissioned Officer

NDA – National Defense Act

NG – National Guard

NGA – The National Guard Association

NGAUS – The National Guard Association of America

NGB – The National Guard Bureau

NKPA – North Korean People’s Army

NME – National Military Establishment

NRO – National Reconnaissance Office

NSC – National Security Council

NTC – National Training Center

OCS – Officer Candidate School

Officership - A term that militaries often use to describe the technical, tactical, and leadership standards of being an officer.

OPFOR – Opposing Force

OSD – The Office of the Secretary of Defense

PA – The Palestinian Authority

The Palestinian Territories – Refers to the West Bank and the Gaza Strip.

Palmach – An acronym based the Hebrew word for assault companies/storm troops, *Plugot Machats*. The name of an elite fighting unit of the Haganah.

PGM – Precision Guided Munition

PLO – Palestinian Liberation Organization

R&D – Research and Development

RCT – Regimental Combat Team

Readiness – The ability of a military organization to achieve its assigned missions to the standards expected of it by doctrine and its leadership.

REP – Reserve Enlistment Program

ROAD - Reorganized Objective Army Divisions

ROTC – Reserve Officer Training Corps

RPG- Rocket Propelled Grenade

SAM – Surface-to-Air Missile

SBCT – Stryker Brigade Combat Team

SOF – Special Operations Forces

SNS – Special Night Squads

SRF – Selected Reserve Force

STRAF – Strategic Reserve Force

TA – The British Territorial Army (a reserve force)

TFP – Total Force Policy

TRADOC – U.S. Army Training and Doctrine Command

Trained Reserve – A reserve of part-time soldiers or militia who have received training previously as a full-time conscript or professional soldier. Generally, the trained reserve will also conduct refresher training throughout the year as part of a process to maintain reserve readiness for war. The ultimate purpose of the trained reserve is to augment, support, and enhance a regular army in wartime.

UAV/UAS – Unmanned Aerial vehicle/Unmanned Aircraft Systems

Ugdah – A division-sized task force in the IDF.

Ugdot – Plural for Ugdah, meaning multiple division-sized task forces.

UGV – Unmanned Ground Vehicle

UMT – Universal Military Training

UN – The United Nations

USAR – The United States Army Reserve

USMC – United States Marine Corps

WEG – Worldwide Equipment Guide

Yishuv – (Hebrew word for settlement) The name for the community of Jewish settlers/residents in Ottoman and British-controlled Palestine.

Introduction

“In the past it was sufficient that the reservist was motivated and proficient in basic fighting skills. Today...this is no longer enough in view of the great complexity of modern warfare.”

Lt. Gen. Mordechai Gur, Israel Defense Forces Chief of Staff, 1978¹

Since the late 19th century, most armies depended on reservists—be they former conscripts or volunteers with little or no active-duty experience—to reinforce or augment their standing armies in wartime. However, since WWI, reservists struggled to perform this vital function as they, as part-time soldiers, often lacked the time and resources to keep up with the increasingly high-tech and high-skilled means and methods of warfare armies developed over the past century. Thus, reservists—and reserve units in particular—generally performed poorly relative to active soldiers in the wars of the 20th and early 21st century. Yet, paradoxically, armies remained or became even more dependent on reservists since WWI because a convergence of military, political, socio-economic, and cultural factors drove up army operating costs, reduced popular support for mandatory military service, and increased the scale, speed, and lethality of battle. These factors combined to limit armies’ ability to fight without reservists. And they constrained armies’ ability to overhaul reserve policies, forcing many to maintain reserve training and personnel standards designed for the mass infantry forces of the 19th century, not the mechanized battlefields of the past hundred years. This situation presented defense policymakers with a dilemma as they weighed how best to structure, train, and employ their reservists against the

¹ Staff Writers, “Gur Outlines Challenge of Training our Soldier,” *The Jerusalem Post*, 26 January 1978, 2.

military, financial, and political costs of reservists' inability or ability to achieve their missions. And the various approaches armies developed to address this dilemma carried unique benefits and risks that could—and on multiple occasions did—lead to tactical and strategic disaster.

This dissertation focuses on the emergence, evolution, and significance of the reserve dilemma in history, while addressing the central question of the changing roles and capabilities of reservists in the 20th and 21st centuries. In examining these questions, this dissertation offers a different approach to the general study of industrial armies. Existing studies on this topic generally overlook or minimize the importance of reserve readiness challenges or focus exclusively on how reserve readiness relates to the issue of mobilizing armies in wartime.² This dissertation, in contrast, shows how identifying and mitigating reserve readiness challenges was often essential for ensuring the combat effectiveness of armed forces at an affordable cost.

A historical study of reserve forces is important for three reasons. First, it identifies an unintended and important second-order effect that resulted from the mid-20th century shift away from mass conscript armies to armies increasingly staffed by long-service professionals and specially trained technicians. That shift, which other historians such as Michael Howard, John Keegan, and Antulio Echevarria explored,

² See, for example, Williamson and Millett, *Military Effectiveness (Volumes 1, 2, and 3)*; Michael Howard, *War in European History* (New York: Oxford University Press, updated edition, 2001); Geoffrey Wawro, *Warfare and Society in Europe, 1792-1914* (New York: Routledge, 2000). John Keegan, *A History of Warfare* (New York: Vintage Books, 2012); Paul Kennedy, *The Rise and Fall of Great Powers: Economic Change and Military Conflict from 1500 to 2000* (New York: Vintage Books, 1989). Jeremy Black, *War in the Modern World: Since 1815* (New York: Routledge, 2003); John Gooch, *Armies in Europe* (New York: Routledge, 1980).

created major stresses on the 19th century reserve training and personnel models that most armies still maintain today.³ In short, this dissertation takes a well-developed theme in military history—the development and adoption of high-skilled and high-tech approaches to warfare over the past century—and examines how it shaped the capabilities and performance of army reservists.

Second, there are no systematic historical studies of the development and evolution of army reservists. However, several works address the capabilities and performances of certain reserve forces over time or during a particular conflict.⁴ For instance, Eugenia Kiesling provided a comprehensive analysis of the capabilities of the French reserve in the interwar years in *Arming Against Hitler*. Similarly, in his study of the British Army in the lead-up to and during WWII, David French showed how British army reservists struggled to keep up with changes to the technical and tactical character of war in the 1930s and 40s.⁵ Meanwhile, Michael Doubler in *Civilian in Peace, Soldier in War* examined historical development of the U.S. Army National Guard—the main combat reserve component for the U.S. Army.⁶ These works reveal how the rising technical demands of soldiering challenged French and American reservists' ability to maintain readiness for war. But they do not fully

³ Howard, *War in European History*, 120; John Keegan, *The Face of Battle: A Study of Agincourt, Waterloo, and the Somme* (New York: Penguin Books, 1978), 319-20; Antulio Echevarria, *After Clausewitz*, (Lawrence: University of Kansas Press, 2000), 36-38.

⁴ Michael Doubler, *Civilian in Peace, Soldier in War: The Army National Guard, 1636-2000* (Lawrence: University of Kansas Press, 2003); Eugenia Kiesling, *Arming Against Hitler: France and the Limits of Military Planning* (Lawrence: University of Kansas Press, 1996).

⁵ David French, *Raising Churchill's Army: The British Army and the War against Germany 1919-1945* (New York: Oxford University Press, new edition, 2001).

⁶ Doubler, *Civilian in Peace, Soldier in War*.

explore the broader historical processes and decisions that helped lead to these readiness challenges—challenges that as the following chapters show affected multiple armies preparing for major war in the 20th and 21st centuries.

And finally, by documenting and explaining the reserve dilemma's development and significance, this dissertation provides historical context for ongoing policy debates in the United States and elsewhere on how best to structure and employ reserve units.⁷ Such debates, as one U.S. policy analyst recently noted, often lack rigorous historical context explaining how and why armies are dependent on reservists and what reservists have proven capable or incapable of doing in history.⁸ In short, a history of the reserve dilemma helps advance the historiography of modern warfare, while providing valuable historical context for policy analysis.

However, this dissertation does not—nor can it—account for all reservists' experiences in the past century. Instead, it concentrates on a newer form of reservist: the reservist that armies use to replace or augment active duty units for offensive and defensive operations inside or outside a state's national borders. Therefore, this dissertation does not look at the experience of militias and other reservists that serve almost exclusively as a homeland defense force with little to no expeditionary capabilities (e.g. the militias of the post-Cold War Baltic states). Reservists with offensive, defensive, and expeditionary capabilities emerged during the wars of the French Revolution; but they did not become a standard form of military organization

⁷ These debates are explored in the latter half of chapter 1.

⁸ See Michael O'Hanlon's comments at October 2015 AUSA Conference made available by U.S. Army Training and Doctrine Command at <https://www.youtube.com/watch?v=T1qcObRb1tU> (accessed 20 September 2016).

until the Prussians developed and demonstrated the ability to field highly effective reservists during the wars of German Unification in the mid-19th century. Since then, nearly every state preparing for major war developed Prussian style reservists or variations of them. It is this form of reservist—labeled as category IV in the below chart—that this dissertation places its focus.

Table 1: Reserve Force Categories in History		
	Homeland Defense-Focused*	Expeditionary and Homeland Defense Focused**
Reservists that Serve as Individual Replacements or Augmentees for Active Units	I	II
Units of Reservists that Reinforce, Augment or Replace Active Units	III	IV
* <i>Homeland Defense = Operations within the border of a particular state, kingdom, etc. (examples: City militias of Medieval Europe and French National Guard during the Napoleonic Wars)</i>		
** <i>Expeditionary = Operations outside the border of a particular state, kingdom, etc. It can also perform homeland defense if needed. (examples: Prussian Army Reserve and U.S. National Guard)</i>		

In exploring these forms of reservists, I narrow my focus further to the experience of reserve maneuver units. Maneuver units are composed primarily of combat arms soldiers: infantry, armor, artillery, and combat engineers.⁹ Reserve forces usually contain a variety of combat support specialists as well, such as soldiers serving in the intelligence, logistics, or medical fields. But to concentrate my analysis, I largely exclude the experiences of these soldiers. I also concentrate on combat reservists because the primary purpose of a reserve generally is to provide additional combat power in the form of semi-trained infantry, armor, or artillery units. This purpose reflects the fact that active-duty forces will most likely suffer the most substantial attrition in maneuver units—the units that do the bulk of the fighting and dying in large-scale combat operations.

⁹ I do not examine combat aviation units in this dissertation. The primary focus of this dissertation is on land forces.

In exploring contemporary forms of reservists, this dissertation primarily examines two case studies: the U.S. Army National Guard (ARNG) and the Israel Defense Forces (IDF) army reserve. I focus on these cases because they represent the two main types of reserve models. The ARNG uses the Anglo-American style reserve model built around volunteers, many of whom do not have prior active duty experience.¹⁰ And the Israelis employ the Prussian style reserve in which all reservists served previously as full-time conscripts for at least two to three years.¹¹

¹⁰ Despite its long history, the historiography of the Army National Guard is underdeveloped compared to the active U.S. Army. The most comprehensive histories of the guard are Doubler's *Civilian in Peace, Soldier in War* and Jim Hill's *The Minute Man in Peace and War: A History of the National Guard*, (Mechanicsburg: Stackpole, 1964). Both works provide a general survey of the guard's history. However, both historians are staunch defenders of the guard (Doubler wrote *Civilian in Peace, Soldier in War* as an official history sponsored by the National Guard Bureau) and, consequently, often downplay or overlook many of the guard's historical shortcomings and failures. The other main historical work on the ARNG is Martha Derthick's *The National Guard in Politics* (Cambridge: Harvard University Press, 1965), which looks primarily at how the guard's political influence in Congress and state legislatures have shaped its history. Compared to Doubler and Hill, Derthick is far more critical of the guard's performance and capabilities and its use of political influence to force the active-duty army to maintain the guard as its primary combat reserve. Derthick's work, however, does not account for important changes to the guard's roles and capabilities following the Vietnam War (e.g., the ARNG's evolution into an operational reserve once the United States ended peacetime conscription), as she wrote her book in the early 1960s. There are also several works on the performance of particular guard regiments and divisions during the world wars, such as Jonathan Bratten's *To the Last Man: A National Guard Regiment in the Great War, 1917-1919* (Ft. Leavenworth: Army University Press, 2020) about the 103rd Regiment in WWI, Michael Weaver's *Guard Wars: The 28th Infantry Division in World War II* (Bloomington: Indiana University Press, 2010) about the 28th Infantry Division in WWII and Joseph Balkoski series of books on the 29th Infantry Division in WWII. These books provide valuable insights into the evolution and performance of specific guard units during the world wars, including how long periods of pre-deployment training and reorganization enabled them to perform their missions effectively. My dissertation expands on and compliments these works by placing all of them into conversation in chapter 2 and 3 and by showing how the evolving capabilities and performance of the ARNG relate to broader developments in military history.

¹¹ The historiography of the IDF army reserve is also highly undeveloped. Most works, like Martin van Creveld's *The Sword And The Olive: A Critical History Of The Israeli Defense Force* (New York: Public Affairs, 2008) and Stuart Cohen's *Israel and its Army: From Cohesion to Confusion* (New York: Routledge, 2008) lump the story of the army reserve in with the story of the army in general. This is understandable because the IDF is so heavily dependent on reservists and because active units also have reservists within their ranks. In other words, the story of the IDF ground forces is the story of the IDF reserves. That said, unlike the historiography of the ARNG, histories of the IDF are often more critical of the performance of Israeli reservists, as Stuart Cohen does in *Israel and*

Additionally, for unique geopolitical reasons, the ARNG and IDF reserve had to go to war more frequently than other reserve armies since WWII, which provides insight into how both organization's capabilities changed over time. The experiences of reservists in general is examined in chapter one, which looks at the broad constraints and compulsions that shaped how states developed, trained, and employed their reserves in modern military history. Two other unique cases—the Soviet Union/Russia and Iran—are examined in appendices A and B.¹²

To understand the history of reserve forces in general and the experiences of the ARNG and the IDF reserve in particular, this dissertation uses a variety of secondary and primary sources. It draws on secondary sources to understand broad trends in military history and the experiences of reserves within that history. It also uses field manuals, biographies, official annual reports, press reporting, and recently declassified U.S. national security documents to gain an appreciation of how the changing character of war affected reserve forces, as secondary sources often ignore reservists or conflate their experiences with active duty units.¹³ Additionally, the case study on the ARNG uses rarely cited primary source documents, including the

its Army. My dissertation expands on this body of work by exploring how capabilities and performance of Israeli reservists relate to broader trends in military history.

¹² I was unable to conduct larger case studies on these militaries due largely to the fact that both states limit access to primary source documents on their reserve systems in particular and their militaries in general.

¹³ Declassified intelligence reporting is available at the CIA reading room and the Digital National Security Archive.

personal papers of senior guard leaders, that provide direct insights into ARNG reserve readiness—views that are often overlooked by historians.¹⁴

Strict classification rules governing Israeli military documents limit insights into the IDF's capabilities and intentions, especially in its more recent wars. Thus, this dissertation's analyses of the IDF draws more heavily on secondary sources, biographies, Israeli press reports, and recently declassified U.S. intelligence reporting on the IDF and the Arab-Israeli wars. My confidence in my conclusions are, therefore, higher in regards to the case study of the U.S. ARNG, for the official record of its performance and capabilities is mostly available to the public.

I also had a field work-type component to my research in addition to my primary and secondary sources. For the last eleven years, I have served in the Maryland Army National Guard, first as an enlisted soldier for four years and as an officer for the past seven years.¹⁵ My service in the guard has allowed me to work as a member of a squad in a combat engineer company, a staff officer with a cavalry squadron, a staff officer in an infantry division headquarters, and as an analyst working for the Director of the Army National Guard at the National Guard Bureau (NGB). While writing this dissertation, I also had the privilege of working with dozens of guardsmen and reservists while deployed to Afghanistan, during multiple disaster response missions within the United States, and while preparing for an

¹⁴ Most of these letters can be found at the National Guard Association of the United States (NGAUS) library in Washington, DC. These letters provide insights into guard attitudes regarding reserve readiness challenges over the past century that historians often overlook when making assessments regarding the NG and its performance during major U.S. Wars.

¹⁵ The views expressed in this dissertation are my own and do not reflect those of the U.S. Army, the National Guard, or the Maryland Army National Guard.

upcoming rotation to Kuwait. These experiences at the tactical, operational, and strategic levels of command alerted me to the increasing challenge of building and maintaining readiness in a reserve unit in an era of high-tech and high-skilled warfare. But my education in military history at the University of Maryland helped me understand the historical processes, decisions, and events that have produced and sustained these challenges.

Ultimately, this dissertation does not seek to provide any direct lessons for resolving the reserve readiness issues that my fellow guardsmen and I have confronted and almost certainly will continue to face. However, it will—I hope—provide readers and me with an understanding of how and why the reserve readiness issues described in the following chapters emerged, why they persist, and their tactical and strategic significance. To accomplish this, chapter one conducts a broad examination of the history of the trained reserves from their emergence as a crucial military organization in the 19th-century to contemporary challenges facing reserve forces in an era of increasingly high-tech and high-skilled warfare. With its core themes established in chapter one, this dissertation turns to case studies of a volunteer reserve—the ARNG—and a reserve composed of discharged conscripts—the IDF army reserve. A summary of my findings and key judgments are found in the conclusions following the case studies.

Chapter 1: The Reserve Dilemma

“Technology, which in the nineteenth century had made mass participation in warfare both possible and necessary, was in the twentieth century to place increasing power in the hands of highly qualified technicians.”

Michael Howard¹⁶

Since the First World War, armies preparing for major war struggled to reconcile their 19th century reserve systems with the increasingly high-tech and high-skilled character of 20th and 21st century warfare. Such reserve systems, developed by Prussia in the mid-19th century, generally consisted of two elements: a small standing army composed primarily of short-service conscripts and a large reserve component composed of part-time soldiers. The reservists, through two or three years of prior service as a conscript or, if young enough, as a longer service professional, were nearly as effective as an active duty soldier. The Prussian reserve system addressed the need for an affordable army that was numerically and qualitatively comparable to a larger great power army composed of long-service professionals. Other great powers followed Prussia’s example after its decisive victories over Austria-Hungary and France in the German Wars of Unification. And some, like Great Britain and the United States, attempted to imitate the Prussian system by boosting reserve training standards, but while maintaining their volunteer reserve and militia systems.

However, both the Prussian and Anglo-American-style reserve models—and variations of them—proved inadequate in the wars of the 20th and 21st centuries, as reservists struggled to keep up with the rising technical demands of soldiering with

¹⁶ Howard, *War in European History*, 120.

around 30 days or less of annual training. This situation presented defense policymakers with a dilemma because a host of military, financial, political, and socio-economic constraints generally prevented them from waging war without their reserves. And each policy approach to address that dilemma, such as boosting reserve training standards or keeping reserve forces only in supporting roles, carried its own potential risks and drawbacks. Failure to recognize or address the reserve dilemma, moreover, could lead to tactical and strategic disaster, as the French and others experienced in the world wars.

This chapter examines the development and significance of the reserve dilemma, as it considers how financial, technological, political, and socio-economic change affected a particular type of military institution: the trained reserve. In doing so, it offers a different approach to understanding the course of military history over the past century and a half by focusing on reservists—those part-time soldiers often overlooked by other historians. Themes developed and explored in this chapter, in turn, provide context for a detailed examination of two types of reserve forces in subsequent chapters: a reserve composed of volunteers with little to no prior active service (the U.S. Army National Guard) and a reserve composed of discharged conscripts (the IDF army reserve).

Section 1: Three Revolutions and the Emergence of the Trained Reserves

In the 18th and 19th centuries, states developed two types of reserve models to reinforce their standing armies with trained or semi-trained part-time soldiers: a reserve composed of discharged short-service conscripts and a reserve composed of volunteers who may or may not have had previous active duty experience. The

former is most strongly associated with the Prussian armed forces, whose mass army of conscripts and recalled reservists revolutionized how states waged war in the second half of the 19th century. The latter was primarily employed by the armies of Great Britain and the United States, who made incremental improvements to their citizens' militias and reserves in the forty years leading up to WWI to ensure they were more prepared to survive and succeed on an industrial-era battlefield.

Prior to the late 18th century, citizen-soldiers—be they militiamen or reservists—had little tactical and strategic value due to various political, administrative, and military constraints. From a political perspective, rulers were hesitant to arm their subjects, which could lead to instability or revolution.¹⁷ And even if they wanted to, early states lacked the administrative capabilities and financial means to organize efforts to train, equip, and deploy mass armies.¹⁸ Part-time soldiers, moreover, were poor substitutes for full-time fighters because medieval and early modern tactics required a considerable amount of physical stamina and practiced skill.¹⁹ A civilian thrust into battle on a fair field with little to no formal training and combat experience was no match for a seasoned professional. Thus, rulers relied primarily on small armies of long-service professionals and mercenaries who had the time to develop the physical and mental skills necessary to survive and

¹⁷ Palmer, "Frederick the Great, Guibert, Bulow: From Dynastic to National War," in *Makers of Modern Strategy*, (Princeton: Princeton University Press, 1986), 111.

¹⁸ Kennedy, *The Rise and Fall of Great Powers*, 51-55, 58-59.

¹⁹ Terrence Wise, *Medieval European Armies* (Oxford: Osprey Publishing, 2012), 6.; Helen Nicholson, *Medieval Warfare: Theory and Practice of War in Europe, 300-1500* (New York: Palgrave, 2003), 57.

thrive on the battlefield.²⁰ Keeping a small long-service army also enabled rulers to maintain control when confronted by revolutionary disorder.²¹

The constraints that hitherto restricted the development and employment of militarily effective part-time soldiers loosened during the American and French revolutions. American and French revolutionaries demonstrated how nationalistic societies facing the threat of annihilation could field a militia or reserve that had some strategic and tactical value. When the Americans revolted against Britain in 1775, they lacked a standing army. But they had local militias that, for over a century, helped secure their communities from internal and external threats. Although unprofessional by European standards, the militias provided a semi-trained reserve of soldiers who reinforced the small standing army that was hastily formed in 1775.²²

Despite early defeats against a much better trained British army, the Americans' sense of divine purpose and righteousness, support from France, and the difficulty of keeping the British army adequately supplied enabled the United States to secure independence in 1783.²³ And without the militias, the Americans likely would not have had enough soldiers to pressure Britain to end the war. After the war,

²⁰ Steven Ross, *From Flintlock to Musket: Infantry Tactics, 1740-1866* (London: Frank Cass, 1996), 19-21.

²¹ Ibid., 22, 24.

²² U.S. Army Center of Military History *American Military History Volume 1: The United States Army in a Global Era, 1917-2008* (Washington, DC: Center of Military History, 2009), 30-31, 47; Doubler, *Civilian in War, Soldier in Peace*, 7.

²³ Allan Millet and Peter Maslowski, *For the Common Defense: A Military History of the United States from 1607 to 2012* (New York: Free Press, 2012), 48; Russel Weigley, *The American Way of War: A History of United States Military Strategy and Policy* (Bloomington: Indiana University Press, 1977), 4, 11; Antulio Echevarria, *Reconsidering the American Way of War: US Military Practice from the Revolution to Afghanistan* (Washington, DC: Georgetown University Press, 2014), 65.

the United States codified committed to citizen soldiers for national defense with the passage of the Militia Act of 1792, which required all free able-bodied white male citizens between ages 18 and 45 to join a local militia.²⁴ But, as we shall see in the next chapter, the American militia remained highly unprofessional and militarily insignificant for much of the 19th century.

Six years after the American Revolution, French revolutionaries developed their own militia: The National Guard (NG). The NG was a part-time military organization filled primarily with middle-class Frenchmen, who, together with other citizen volunteers, repulsed an invading Prussian army in 1792 and helped save the revolution.²⁵ But members of the NG had little will or ability to leave their homes to train or to campaign abroad.²⁶ With such limited training and experience, the guard was unable to meet the standards of regular soldiers and its amateur officer corps was, in the words of Napoleon Bonaparte, a “laughingstock” amongst their men.²⁷

Although weak from a tactical perspective, the NG was important strategically because it helped garrison France, freeing the active duty army, which grew through the mass conscription of nationalistic French youth, for expeditionary operations.²⁸ And that army, which began as a combination of untrained civilians and

²⁴ U.S. Army Center of Military History, *American Military History Volume 1*, 114.

²⁵ Gunther Rothenberg, *The Art of Warfare in the Age of Napoleon* (Bloomington: Indiana University Press, 1981), 11.

²⁶ *Ibid.*, 32, 97; Keegan, *A History of Warfare*, 349.

²⁷ Rothenberg, *The Art of Warfare in the Age of Napoleon*, 133.

²⁸ John Lynn, “States in Conflict: 1661-1773,” in *The Cambridge Illustrated History of Warfare* (New York: Cambridge University Press, 1995), 193, 198.

professionals, transformed into a highly capable veteran force through constant campaigning abroad. Nevertheless, Napoleon's disastrous invasion of Russia in 1812 destroyed a great portion of his army, forcing him to retreat back to France where he had to deploy the NG to intercept a second invasion in 1814. Despite putting up a vigorous defense, the NG was no match for the large standing armies of its adversaries, who seized Paris and forced Napoleon to abdicate.²⁹

To defeat the massive armies of France, the allies had to develop or improve their existing militia and reserve-like organizations. The Prussians were particularly dependent on reservists and their militia, known as the *Landwehr*. Like the rest of its allies, Prussia initially attempted to defeat France with its standing army of long-service professionals. But following its defeat by Napoleon at Jena–Auerstedt in 1806, Prussia began examining ways to maximize the military potential of its citizenry, as France had done through mass conscription and the establishment of the NG. One way it did so was by building a reserve of part-time soldiers through the *Krumper* system.³⁰ Under this system, each active duty infantry company would release twenty of its most senior soldiers every year to serve in the reserves on a part-time basis; twenty new recruits, in turn, would replace those veterans in active units.³¹ Such a system allowed Prussia to build a reserve of trained personnel that could be

²⁹ Philip Mansel, *Paris Between Empires: Monarchy and Revolution 1814-1852* (New York: St. Martin's Press, 2003), 6, 8.

³⁰ Ross, *From Flintlock to Musket*, 145.

³¹ Wilbur Gray, *Prussia and the Evolution of the Reserve Army: A Forgotten Lesson of History* (Carlisle: The Strategic Studies Institute, 1992), 3.

recalled for service in war; and it could do so without violating treaty restrictions put in place by France that limited the Prussian army to 42,000 active soldiers.³²

Once war erupted again with France, Prussia further refined its conscription and reserve system. Under new regulations laid out in September 1814, conscripts would serve three years in the active duty army, two in the reserve, six in the first line of the *Landwehr*, seven in the second-line *Landwehr*, and, finally, ten years in the *Landstrum*.³³ At the same time, Prussia infused its reserve and militia ranks with veteran leadership by placing each reserve infantry battalion under the command of an active duty regimental.³⁴ To grow these reserve battalions, Prussia used a mixture of new recruits and demobilized soldiers.³⁵ By blending veteran soldiers and leaders with inexperienced ones, Prussia helped ensure that the reserve, and to a lesser extent the *Landwehr*, performed well in combat during their two years of campaigning.³⁶

In short, the American Revolution and the wars of the French Revolution demonstrated that under certain circumstances reservists and militiamen had tactical and strategic value. Those circumstances included, most importantly, the presence of an existential threat that compelled rulers or revolutionaries to maximize the military potential of their civilian population through conscription and the establishment and

³² Lynn, "States in Conflict: 1661-1773," in *The Cambridge Illustrated History of Warfare*, 206.

³³ Ross, *From Flintlock to Musket*, 146.

³⁴ Gray, "Prussia and the Evolution of the Reserve Army: A Forgotten Lesson of History," 5-6.

³⁵ Ibid.

³⁶ Ibid., 6; Dennis Showalter, "The Prussian Landwehr and Its Critics, 1813-1819." *Central European History* 4, no. 1 (1971), 15.

use of reservists and militia. Additionally, a significant number of individuals had to be willing to serve. Early forms of nationalism in Europe and North America helped ease the ability of states to activate their militias and practice conscription. And in the case of Prussia, the presence of veteran leaders in the ranks of militia and reserve formations demonstrated that part-time soldiers could face active duty soldiers when well-led. Yet, for the most part, reservists and militiamen remained poor substitutes for active duty soldiers given their relative lack of training and experience, as evidenced by the struggles of the American and French militias. This widespread use of citizen-soldiers, as conscripts, reservists, and militiamen, did not survive the Wars of the French Revolution, as the victors sought to re-impose the old aristocratic order in Europe.

Smaller, professional armies were better suited for the military requirements of the first half of the 19th century. During that period, armies generally had two missions: defense against domestic revolutionaries and service abroad in the colonies.³⁷ For domestic missions, states needed to ensure their armies were loyal and willing to suppress revolutionary movements, not join them. To guarantee loyalty, states kept their armies small and segregated from the civilian population, enabling them to maintain better oversight of their activities while walling them off from outside political influences.³⁸ For missions abroad, states needed soldiers who served on long contracts and had little to no obligations outside the barracks. Short-service conscripts or part-time reservists—who had families and civilian work

³⁷ Howard, *War in European Society*, 94-96.

³⁸ Ibid.

commitments—were ill-suited for such duties.³⁹ Recruiting, housing, supplying, and feeding mass armies of professionals, short-term conscripts, recalled reservists or mobilized national guardsmen also was simply too expensive at the time.

Part-time soldiers also lacked the training time to develop the tactical and physical skills necessary to fight according to the military standards of the first half of the 19th century. Armies at the time largely retained 18th century-style close-order infantry tactics that required soldiers to march in step within columnar or linear formations and to load and shoot their firearms in unison.⁴⁰ They had to do so because firearms at the time were highly inaccurate; infantrymen, therefore, needed to ensure their movements and firing occurred in unison on a concentrated front to physically and psychologically shock opponents into submission. Learning how to operate in this manner required practice and experience, which was difficult for part-time or short service soldiers to obtain.

Soldiers also needed time to train to develop the physical fitness levels necessary to perform their jobs effectively. Pre-Industrial armies did not have reliable means to transport personnel and equipment overland. Thus, to move to and from battle, soldiers had to carry all personal equipment on their backs, marching dozens of miles a day with little to no protection from the elements. Militiamen who

³⁹ Michael Howard, *The Franco-Prussian War: The German Invasion of France 1870-1871* (New York: Routledge, second edition, 2001), 9-10.

⁴⁰ Ross, *From Flintlock to Rifle*, 158.

were civilians most of the year and did not have the same degree of physical training as professionals were unlikely to hold up on such lengthy marches.⁴¹

Despite these limitations, Prussia continued to rely on part-time reservists and short-service conscripts due to its tiny economy and small population relative to its larger allies and adversaries.⁴² Yet, in the first half of the 19th century, Prussia struggled to maintain an effective reserve due to a variety of fiscal, political, and military constraints. From a fiscal perspective, Prussia's tiny economy could not sustain its conscription system, as it frequently had to discharge conscripts early to save money.⁴³ Cost-cutting measures also forced Prussia to drop conscript service from three years to two in the 1830s and 40s.⁴⁴ Soldiers discharged into the reserves or *Landwehr* also received no training or subpar training from amateur militia leaders.⁴⁵ Political pressures also played a role, as some Prussian elites worried that militiamen posed a threat to internal stability. These concerns helped justified cuts to reserve and militia training in the 1820s.⁴⁶ Consequently, the *Landwehr* and, to a lesser extent, the reserves fell into disrepair. When activated to help suppress

⁴¹ Dennis Showalter, *The Wars of German Unification* (New York: Bloomsbury Academic, second edition, 2015), 39; Keegan, *The Face of Battle*, 134-35.

⁴² Geoffrey Wawro, *The Franco-Prussian War: The German Conquest of France in 1870–1871* (New York: Cambridge University Press, 2003), 2; Kennedy, *The Rise and Fall of Great Powers*, 160.

⁴³ Showalter, *The Wars of German Unification*, 24.

⁴⁴ *Ibid.*, 79.

⁴⁵ *Ibid.*, 24, 86.

⁴⁶ *Ibid.*, 24; Showalter, "The Prussian Landwehr and Its Critics," 3; Howard, *The Franco-Prussian War*, 12

revolutionaries and rioters in the 1840s, they unsurprisingly demonstrated poor discipline; some even participated in the violence.⁴⁷

Despite these flaws, the Prussian military system had many benefits, some of which were not realized fully until later in the century. For one, keeping a significant percentage of soldiers in the reserves and militia could save money, as the state did not have to feed or house them in peacetime. Second, Prussia's use of regional recruitment practices meant that it could form more cohesive units that were relatively easy to mobilize in wartime or for training exercises, given most soldiers lived near local training depots.⁴⁸ But the most important benefit, as we shall see, was that having a trained reserve greatly increased the number of soldiers available in the event of war, helping compensate for the rising scale and lethality of warfare in the Industrial era.

Wars of the mid-19th century, such as the Crimean War (1853-56), the Franco-Austrian War (1859), and the U.S. Civil War (1861-65), demonstrated how new firearms and artillery could rapidly attrite small professional armies.⁴⁹ New rifled muskets that used percussion caps instead of flintlocks and fired specially shaped conical bullets had much higher rates of fire and were more accurate and reliable than older generations.⁵⁰ And new breech loading artillery that fired exploding shells had

⁴⁷ Showalter, *The Wars of German Unification*, 38-39.

⁴⁸ Ibid., 26.

⁴⁹ Echevarria, *After Clausewitz*, 13.

⁵⁰ Ibid.; Millett, Maslowski, and Feis, *For the Common Defense*, 114-15.

twice the rate of fire and about 33 percent greater range than muzzleloaders.⁵¹ Armies equipped with these weapons could inflict devastating losses on opposing forces, who still generally fought in close order formations.⁵² Such losses were problematic because few armies had trained reserves to replace dead or wounded active soldiers. As one British historian recounted about the Crimean War, “There were no reserves to take the place of those dauntless legions which melted in the crucible of battle and left a void which time alone could fill.”⁵³ These developments, as 19th century military theorist Antoine-Henri Jomini predicted in 1838, “...threatened a great revolution in army organization, armament, and tactics...”⁵⁴

Prussia’s reserve system would be a major part of that coming revolution. And in the 1850s and 60s, the Prussians took steps to modernize that system to improve their ability to deter foreign adversaries in general and an increasingly aggressive France in particular.

As Great Power competition again turned violent, the Prussian army consisted of three elements: the active army, the reserve, and the *Landwehr*. Soldiers served in the active army on three-year terms followed by four years in the reserves and then five years in the *Landwehr*.⁵⁵ The three-year terms were re-established by the early 1860s as part of a reform effort led by William I, who took power from his ailing

⁵¹ Wawro, *The Franco-Prussian War*, 58.

⁵² Wawro, *Warfare and Society in Europe*, 59, 68, 72.

⁵³ William Russell, *The British Expedition to the Crimea* (New York: Routledge and Sons, new and revised edition, 1877 [1858]), 2.

⁵⁴ Wawro, *Warfare and Society in Europe*, 32.

⁵⁵ Kennedy, *The Rise and Fall of Great Powers*, 184.

brother in 1858.⁵⁶ In theory, this system could enable Prussia to rapidly expand its wartime army with trained and semi-trained soldiers; having those additional soldiers would help Prussia compete with the larger standing army of France and give it depth in terms of personnel to compensate for heavy battlefield losses. For example, if Prussia conscripted 10,000 men every three years in 1860, it would field an army that was four times that size by 1869, as shown in Table 1.1 below.

Table 1.1 Prussian Force Generation Model			
Year	Active Duty (3 Year Conscripts)	Reserve (Discharged Conscripts; 4 Year Terms)	Landwehr (Former Reservists; 5 Years)
1860	10,000	0	0
1863	10,000	10,000	0
1866	10,000	20,000	0
1869	10,000	20,000	10,000

To improve the viability of their conscript and reserve army, the Prussians made several important technical and tactical changes. Perhaps the most important technical development was the advent of the breech-loading rifle, which the Prussians began secretly stockpiling in the 1840s.⁵⁷ Known as the Dreyse needle rifle (named after its inventor Johann Nicholas von Dreyse), this Prussian breech-loader greatly simplified and sped up the loading process, as soldiers just needed to insert a paper cartridge consisting of the black powder charge and bullet into the breech, rather than having to drop a bullet and gunpowder down the barrel separately.

The breech-loading rifle was important for developing a viable reserve army because it was difficult to teach a short-service or part-time soldier how to master the multi-step process of loading and firing muzzleloading rifles, especially when that

⁵⁶ Gooch, *Armies in Europe*, 87.

⁵⁷ William McNeill, *The Pursuit of Power: Technology, Armed Force, and Society since A.D. 1000* (Chicago: University of Chicago Press, 1984), 235.

soldier was doing so amid the chaos of battle. And a faster loading and firing process meant that relatively unskilled soldiers could generate a higher volume of fire. In fact, the Prussians found that a soldier armed with a breech-loader had a 6 to 1 advantage in shots fired per minute compared to someone armed with a muzzleloader.⁵⁸ The Prussians also discovered that this increased rate of fire improved reservists' confidence that they could compete with long service professionals in battle.⁵⁹

But Prussia could only produce about 10,000 Dreyse rifles a year in the late 1840s using preindustrial manufacturing techniques.⁶⁰ At that rate, it would have taken thirty-two years to re-equip the 320,000 soldiers of the Prussian army with new rifles.⁶¹ Production rates, however, increased markedly in the 1850s and 60s when mass production technologies developed in the United States came to Europe.⁶² With the introduction of the new methods of production, the Prussians were able to equip reservists and members of the *Landwehr* with the Dreyse breech-loading rifles in the early 1860s.⁶³

The railway, meanwhile, provided Prussia a mechanical means for transporting hundreds of thousands of reservists—and all of their equipment—from

⁵⁸ Howard, *The Franco-Prussian War*, 5.

⁵⁹ Showalter, *The Wars of German Unification*, 61.

⁶⁰ McNeill, *The Pursuit of Power*, 235.

⁶¹ Ibid.

⁶² Ibid.

⁶³ Ibid., 246-47; Michael Solka and Darko Pavlovic. *German Armies 1870–71 (Vol. 1)* (London: Osprey Publishing, 2004), 37.

mobilization depots to battle, reducing the need for long marches that had previously exhausted out-of-condition reservists before the fighting started.⁶⁴ Prussian officers had recognized the potential for the railroads to enable the rapid mobilization of reservists and conscripts as early as the mid-1830s.⁶⁵ And in the subsequent three decades, the Prussians expanded their rail networks and conducted exercises demonstrating the viability of moving men and equipment by rail from the interior to the frontier.⁶⁶

Overseeing the mobilization and deployment of reservists was the Prussian General Staff. By the 1860s, the Prussian General Staff consisted of about 60 highly trained and experienced officers who managed plans, operations, logistics, administration, and intelligence for the entire army.⁶⁷ Other armies generally improvised such important functions. But the Prussians did not have the luxury of doing so because they depended on the speedy and efficient mobilization of hundreds of thousands of reservists. Failure to mobilize quickly could allow the large standing army of France to strike first and overwhelm Prussia's small conscript army. Such a process, however, required careful planning; otherwise, reservists and conscripts could arrive to the front late as a "ragged assembly...of disorderly armed men," as the

⁶⁴ Philip Bobbit, *The Shield of Achilles: War, Peace, and the Course of History* (New York: Anchor Books, 2002), 188.

⁶⁵ Showalter, *The Wars of German Unification*, 28.

⁶⁶ Ibid., 46; Gooch, *Armies in Europe*, 68.

⁶⁷ Wawro, *The Franco-Prussian War*, 47.

Prussian Chief of the Staff Helmuth von Moltke later explained.⁶⁸ To prevent such disorder, the General Staff conducted detailed studies and exercises in peacetime that refined and tested Prussia's ability to mobilize and deploy its army. The staff, for instance, produced rail timetables to ensure men and material arrived quickly to the right place at the right time.⁶⁹ They also produced studies of their opposing armies and created detailed maps of potential battlegrounds, ensuring subordinate commands understood the operating environment and adversaries.⁷⁰

Helping the General Staff coordinate all these functions and processes was the telegraph. Invented in the 1840s, the telegraph gave the General Staff the means to instantly pass orders to and from its field armies and subordinate corps. Without such a capability, the staff would almost certainly have been unable to coordinate the movement of separate army commands moving across a broad front.⁷¹

As Prussia expanded its rail networks and developed contingency plans for war, it also reformed how it trained and organized its army. In doing so, it greatly increased the readiness of its reserve forces. The aforementioned decision to return conscript service to three years was particularly important. King William I and his advisors considered three years as essential to instill discipline, martial spirit, and military skills in conscripts that would serve as the foundation for recalled reservist

⁶⁸ This is how Helmuth von Moltke (the younger) described an unplanned mobilization on the eve of WWI, as detailed by Holger Herwig in *The Marne, 1914: The Opening of World War I and the Battle That Changed the World* (New York: Random House, 2011), 14.

⁶⁹ John Keegan, *The First World War* (New York: Vintage Books, 2000), 28.

⁷⁰ Showalter, *The Wars of German Unification*, 25.

⁷¹ Martin Van Creveld, *Command in War* (Cambridge: Harvard University Press, 1985), 104-05, 107.

combat effectiveness.⁷² In their estimation, it was during that third year of service that a conscript began to master marksmanship skills and develop the confidence and abilities to take the initiative if required.⁷³

The ability to take the initiative and fight with minimal supervision was important because of changes to Prussian tactics in the early 1860s. At the time, Prussian leaders understood that even the best-trained short-service conscript and recalled reservists may not have the discipline and marksmanship skills to prevail in a protracted firefight with long-service professionals.⁷⁴ Thus, they decided to increase the intervals between soldiers and groups of soldiers in 1861, moving from battalion column formations to smaller company columns and skirmish lines that would maneuver rapidly to an enemy flank or rear while taking advantage of cover and concealment.⁷⁵ Doing this reduced the likelihood of conscripts and reservists engaging in a protracted firefight because smaller and more dispersed formations could move faster and through more restricted terrain than larger cumbersome units. A battalion marching in close order, for instance, would likely struggle to move quickly and efficiently through a city or forest than a company column or line. Additionally, the company formation presented a smaller target that would be harder to detect and concentrate fire against.

⁷² Showalter, *The Wars of German Unification*, 88-89.

⁷³ Ibid.

⁷⁴ Ibid., 62.

⁷⁵ Ibid., 91.

Prussia's ability to fight in company-sized formations was made possible by several factors. For one, nearly all Prussian men were literate, having attended Prussia's robust public schooling system that was unmatched in Europe.⁷⁶ Literate soldiers could be trusted to read and understand manuals explaining the tactics they needed to employ in battle. They could also read and understand maps and written orders. Second, Prussian soldiers and the society from which they emerged were highly nationalistic; and once in the army, conscripts and reservists underwent further indoctrination in Prussian national myths and militaristic ideals.⁷⁷ Such indoctrination likely enhanced the willingness of Prussian soldiers to fight with reduced supervision from officers and NCOs, as they would be more inclined to believe that their actions and sacrifices served a higher purpose. But most importantly, Prussia had a robust professional officer and NCO corps that operated under a military command culture known as *Auftragstaktik* (mission tactics) that gave subordinates leeway on how to accomplish their assigned tasks based on an understanding of their commander's intent and desired end state.⁷⁸ In other words, junior and mid-ranking Prussian officers and NCOs almost certainly had the training, expertise, and motivation to fight with minimal supervision in company columns or skirmish lines.

During the 1850s and 60s, the Prussians also ensured that reservists and militias benefited from this highly professional officer and NCO corps. Starting in

⁷⁶ Wawro, *The Franco-Prussian War*, 43.

⁷⁷ *Ibid.*, 43.

⁷⁸ *Ibid.*, 54.; Echevarria, *After Clausewitz*, 38-39.

1859, Prussia replaced many reserve officers with retired veterans and provided additional opportunities for reservists to train alongside active soldiers.⁷⁹ A decade later, the Prussians reorganized the *Landwehr* to ensure it mirrored the structure and capabilities of the active army, likely helping militiamen to work more easily with active units in peacetime exercises and in battle.⁸⁰ Such training alongside active units and the training they received as three-year conscripts, moreover, meant that reservists only needed to be recalled about four or five days a year to maintain their soldiering skills.⁸¹

Conscript training in the Prussian army was particularly advanced. Prussian conscripts completed more marksmanship training than other armies in the 1860s.⁸² And they conducted realistic small unit exercises complete with hands-on tutorials. Its French adversaries, in comparison, allowed most soldiers to drink away their training days, assuming previous experience would make up for limited peacetime training.⁸³ After exercises, Prussian conscripts also continued to receive training in the evenings from veteran NCOs who gave lectures on discipline and tactics.⁸⁴

All these reforms, however, cost money. In fact, Prussia estimated in 1859 that it would have to increase defense spending by around 25 percent to fund military

⁷⁹ Wawro, *Warfare and Society in Europe*, 77.

⁸⁰ Solka, *German Armies 1870-71*, 43.

⁸¹ Wawro, *The Franco-Prussian War*, 43.

⁸² *Ibid.*

⁸³ *Ibid.*, 42-43.

⁸⁴ *Ibid.*, 43.

reforms.⁸⁵ Fortunately, for Prussia, its economy had grown significantly between 1830 and 1860, providing it a larger tax base to support increased military spending.⁸⁶ Such economic growth resulted from the industrialization of Europe, as shown in Table 1.2, that led to the growth of a vibrant urban middle class that produced additional wealth. And Prussia and other European states were more easily able to tap into that wealth by adopting representative government systems, as they did throughout the first half of the 19th century to placate liberals and revolutionaries who threatened to upend the existing social order.⁸⁷ In doing so, they gave new capitalist elites and the middle-class greater oversight on government spending. This allowed states to borrow more funds with lower interest rates than they could previously, as the citizenry could better ensure the state would repay the loans on time.⁸⁸ And with these lower interest loans, states gained the financial means to support a massive growth in the size of their armies, as shown in Table 1.3.

Table 1.2 Per Capital Levels of Industrialization ⁸⁹			
	1800	1830	1860
Great Britain	16	25	64
Austro-Hungarian Empire	7	8	11
France	9	12	20
German States/Germany	8	9	15
Italian States/Italy	8	8	10
Russia	6	7	8
United States	9	14	21

⁸⁵ Showalter, *The Wars of German Unification*, 79.

⁸⁶ Ibid., 58.

⁸⁷ Bobbitt, *The Shield of Achilles*, 179.

⁸⁸ For more, see John Brewer, *The Sinews of Power: War, Money and the English State, 1688–1783* (Cambridge: Harvard University Press, reprint edition, 1990).

⁸⁹ Kennedy, *The Rise and Fall of Great Powers*, 149.

Table 1.3: Military Personnel of Major European Powers ⁹⁰		
	1830	1860
Great Britain	140,000	347,000
France	259,000	608,000
Russia	826,000	862,000
Prussia	130,000	201,000
Austro-Hungarian Empire	273,000	306,000

In short, special circumstances produced the technological, financial, socio-economic, and political conditions that enabled Prussia to develop the motivations, means, and methods for fielding an effective combat reserve. Namely, Prussia had the motivation to develop an effective reserve because of its precarious geostrategic situation and inability to fund and staff a large professional army. And it had pre-existing models for reserve service developed in the 18th century and refined during Napoleonic Wars that provided it the methods to train and deploy effective combat reservists. It improved upon those methods during the 1850s and 60s by intensifying reservist training and developing new tactics to enhance the survivability and maneuverability of reservist (and conscript) infantry units. Third, technological change provided Prussia the means to arm reservists with new breech-loading rifles that greatly enhanced their ability to generate as much firepower as well-drilled active soldiers. Rail, the General Staff, and the telegraph, meanwhile, provided the Prussian high command the ability to mobilize and deploy a massive reserve and conscript army in a timely and efficient manner—all while reducing the physical demands placed upon recalled reservists and militiamen. Ultimately, this reserve system provided Prussia a major advantage over its rivals. As one Prussian officer explained to a French counterpart in 1869—just one year before the outbreak of the Franco-Prussian War—"you may win in the morning, but we will win in the evening

⁹⁰ Ibid., 154.

with our reserves.”⁹¹ Indeed, by 1870, the French could amass around 400,000 professional troops at the outset of a war; but the Prussians could field more than a million by recalling reservists and activating the militia.⁹²

The first real test for the Prussian military system came against the Austrians in 1866. On paper, Austria held clear military advantages over Prussia. Its standing army was larger and filled with veteran long-service professionals.⁹³ But technological and organizational advantages gave Prussia a qualitative edge. For instance, the Prussian General Staff utilized five railways to mobilize and concentrate three armies, supported by 180,000 *Landwehr* militiamen, inside the Austrian province of Bohemia, catching the Austrians by surprise.⁹⁴ And the Austrians were unable to bring their full strength to bear to reverse the Prussian advance, as they had to keep about a quarter of their forces deployed to Italy to suppress an uprising.⁹⁵ Making matters worse, those forces available to meet the Prussians lacked the support of a general staff and suffered from decades of underfunding, low morale, poor leadership, and inadequate rail and logistics networks.⁹⁶

In battle, the Prussians also took advantage of their nimbler company formations and breech-loading rifles. Armed with rapid shooting breechloading rifles

⁹¹ Wawro, *The Franco-Prussian War*, 42.

⁹² *Ibid.*, 41.

⁹³ Wawro, *Warfare and Society in Europe*, 85.

⁹⁴ Chandler, *The Atlas of Military Strategy*, 190; Murray, “The Industrialization of War,” in *Cambridge Illustrated History of Warfare*, 235; Wawro, *Warfare and Society in Europe*, 90.

⁹⁵ Kennedy, *The Rise and Fall of Great Powers*, 185.

⁹⁶ *Ibid.*, 186.

and artillery, the Prussians inflicted devastating losses on Austrian infantry who fought in densely packed battalion formations.⁹⁷ And the Prussians' nimble company columns could penetrate and exploit gaps in the Austrian defenses, as occurred during the battle of Königgrätz on 03 July 1866.⁹⁸ Prussia's victory in that battle set the conditions for a political settlement three months later, which granted Prussia virtual sovereignty over the North German States and control over the military and foreign policy of the southern states.⁹⁹ It also put Prussia and France on a collision course.

At the time, France had what was generally thought to be the best army in Europe. Its long service soldiers had extensive combat experience gained from counterinsurgency operations in North Africa and conventional wars against Russia and Austria.¹⁰⁰ And, unlike Austria, France had taken substantive steps to prepare its army for the changing technical and tactical realities of industrial era war.

French military officials identified the breech-loading rifles as the key to Prussia's victory over Austria in 1866.¹⁰¹ Thus, between 1866 and 1870, the French developed and produced over a million of their own breech-loading rifles, known as the *chassepot*. The *chassepot* was superior to the Dreyse because it had a rubber ring that sealed gasses within the breech when a rifleman fired a round.¹⁰² Keeping gasses

⁹⁷ McNeill, *The Pursuit of Power*, 245; Ross, *From Flintlock to Rifle*, 177.

⁹⁸ Wawro, *Warfare and Society in Europe*, 86, 89.

⁹⁹ Murray, "The Industrialization of War," in *Cambridge Illustrated History of Warfare*, 236.

¹⁰⁰ Kennedy, *The Rise and Fall of Great Powers*, 186.

¹⁰¹ Howard, *The Franco-Prussian War*, 29, 35.

¹⁰² *Ibid.*, 35.

contained within the breech increased the velocity of the round, allowing it to fire accurately up to 1,460 meters, compared to the 548-meter effective range of the Dreyse.¹⁰³ It also reduced the likelihood that a rifleman would be injured from hot gases escaping the breech.

To compete with the enlarged Prussian Army, France worked to grow its armed forces.¹⁰⁴ Political pressures and legal challenges, however, prevented the emperor from initiating mass conscription, as was his preference.¹⁰⁵ Instead, France reduced the time soldiers served on active duty to five years, after which they went into the newly formed army reserve.¹⁰⁶ Those not conscripted served four years in the reserve—after receiving some minimal military training—followed by five years in the NG.¹⁰⁷ These reforms enabled the French army to grow from 288,000 active soldiers to 490,000 active and reserve soldiers backed by about 400,000 national guardsmen by 1870.¹⁰⁸

French reservists, however, were poorly trained compared to their Prussian adversaries. On paper, the French were supposed to train reservists on an annual basis after they completed five years of conscription service. But annual training

¹⁰³ Ibid.

¹⁰⁴ Ibid., 29.

¹⁰⁵ Ibid., 29-31.

¹⁰⁶ Ibid., 32; Frederick Martin, *The Statesman's Yearbook 1868* (London: Palgrave Macmillan, 1868), 77.

¹⁰⁷ Ibid; Howard, *The Franco-Prussian War*, 32.

¹⁰⁸ Ibid., 29, 39.

requirements dropped from three weeks to two by 1870.¹⁰⁹ And reservists could be excused from training by claiming they already had adequate expertise.¹¹⁰ Reservists who did participate in training, meanwhile, could not stay overnight due to legal restrictions that aimed to prevent the corruption of French youth by barracks life.¹¹¹ Thus, precious training time between drill days was wasted waiting for men to travel to and from the barracks.

France also lacked efficient methods for mobilizing and deploying reservists. One of the main reasons for this was that reserves and active soldiers were scattered across France, not in consolidated mobilization zones like the Prussians.¹¹² And once mobilized, many reservists had to travel hundreds of miles to their regimental depots, delaying the ability of France to bring its army up to full strength. France also did not have an efficient general staff to manage the movement of soldiers and supplies to and from the front.¹¹³ Consequently, less than 50 percent of reservists were available to reinforce the army at the outset of the war with Prussian-led North German Confederation in late July and early August 1870.¹¹⁴

Using its superior reserve mobilization system, Prussia concentrated sixteen army corps against France by early to mid-August 1870, giving them a near 2:1

¹⁰⁹ Ibid., 34.

¹¹⁰ Ibid.

¹¹¹ Ibid.

¹¹² Ibid., 67.

¹¹³ Ibid., 67; Showalter, *The German Wars of Unification*, 237-38.

¹¹⁴ Wawro, *Warfare and Society in Europe*, 109; Howard, *The Franco-Prussian War*, 70-71, 80.

advantage in personnel at the front.¹¹⁵ Included in these sixteen corps were thousands of reservists and militiamen, who would see extensive service in the war. In fact, 121 of the 147 *Landwehr* battalions eventually served in France; and in some cases they helped spearhead attacks and hold territory, freeing the rest of the army to push deeper into France.¹¹⁶ Such extensive use of part-time reservists and militiamen in operations beyond their homeland was unprecedented historically.

Prussia used its advantages in personnel to overwhelm and destroy the active French army by September 1870.¹¹⁷ For its part, France was able to inflict heavy losses on the Prussians, using highly accurate and long-range *chassepot* rifles. For example, approximately 8,000 Prussian soldiers were killed in 20 minutes charging into French rifle fire during the Battle of Gravelotte on 18 August 1870.¹¹⁸ But the Prussian army—reinforced by thousands of reservists and militiamen—absorbed the losses and pushed through the French defenses with the aid of accurate and deadly artillery fire.¹¹⁹

The destruction of the active duty French army sparked a revolution in Paris and the formation of the Third Republic on 04 September. Like their ancestors in

¹¹⁵ Wawro, *Warfare and Society in Europe*, 111; Murray, “The Industrialization of War,” in *The Cambridge Illustrated History of Warfare*, 237.

¹¹⁶ Solka, *German Armies: 1870-71*, 43; Helmuth Moltke, *The Franco-German War of 1870-71* (Auckland: Pickle Partners, 2013 [1893]), 35, 56, 73.

¹¹⁷ Wawro, *Warfare and Society in Europe*, 115-17.

¹¹⁸ Ibid., 111-13; Howard, *The Franco-Prussian War*, 105; Michael Clodfelter, *Warfare and Armed Conflicts: A Statistical Reference to Casualty and Other Figures, 1500-2000* (Jefferson: MacFarland & Company, second edition, 2002), 211.

¹¹⁹ Wawro, *Warfare and Society in Europe*, 113-14; Howard, *The Franco-Prussian War*, 94, 96.

1789, the revolutionaries sought to defend France with a people's army. But, unlike their forefathers, they lacked a cadre of professional officers and NCOs to train and lead a people's army, given the majority of France's professional soldiers were dead, wounded, or captured.¹²⁰ Thus, once committed to battle in December, the newly formed French army—which numbered around 200,000—was defeated by a Prussian corps of just 60,000.¹²¹ Following that defeat, France agreed to an armistice in January 1871, paving the way for a formal peace treaty with Prussia four months later.

Prussia was able to defeat France for a variety of reasons, including its superior staff system that mobilized and concentrated forces quicker—and in a far more organized manner—than the French. But one key reason they won was that they had a large, reliable, and battle-tested reserve; the French did not. Having a viable reserve force gave the Prussians the manpower to maintain the strength of their army, despite high battlefield losses. And the Prussians could commit their reservists to battle knowing that they had the necessary leadership, training, and equipment to succeed, even when pitted against long-service professionals.

The rest of the Great Powers of Europe took notice of the Prussian successes and developed or enhanced their existing reserves and general staffs.¹²² Russia, for

¹²⁰ Murray, "The Industrialization of War," in *The Cambridge Illustrated History of Warfare*, 240.

¹²¹ Wawro, *Warfare and Society in Europe*, 118.

¹²² Ibid., 225; John Gooch, *The Italian Army and the First World War* (New York: Cambridge University Press, 2014), 37.

instance, established a Prussian-style conscript and reserve system in the 1870s.¹²³ France did the same in 1889.¹²⁴ And as armies embraced this conscript and reserve system, the character of modern war transformed. As Helmuth von Moltke, the architect of Prussia's victory in the Franco-Prussian War, later observed, "The days are gone by when, for dynastical ends, small armies of professional soldiers went to war to conquer a city, or a province...the wars of the present day call whole nations to arms..."¹²⁵

But not all the great powers developed a reserve system along the same line as the Prussians. The Americans and British clung to their volunteer reserve models due to a host of political, economic, and military constraints and their unique geographic situations. As the next chapter shows, the Americans had little choice but to rely on a volunteer militia for national defense. The American people and their representatives in Congress had no stomach for conscription and feared that a large standing army could lead to a tyrannical federal government.¹²⁶ Thus, the U.S. military had to rely on the state militias, which were composed almost exclusively of volunteers with no formal military training or experience, to serve as a reserve to the small active duty army. But based in part on observations of Prussian successes in the 1870s, the Americans moved to reform their reserve system in the forty years preceding

¹²³ Byron Farwell, *Mr. Kipling's Army: All the Queen's Men* (New York: W.W. Norton & Company, reprint edition, 1987), 156; Bobbitt, *The Shield of Achilles*, 182.

¹²⁴ McNeill, *The Pursuit of Power*, 256-57.

¹²⁵ Moltke, *The Franco-Prussian War 1870-71*, 2.

¹²⁶ Edward Coffman, *The Regulars: The American Army, 1898-1941* (Cambridge: Harvard University Press, 2004), 4-5; Derthick, *The National Guard and Politics*, 45; Millett, Maslowski, and Feis, *For the Common Defense*, 343-44.

WWI.¹²⁷ They, for instance, boosted militia training to around 24 days a year and ensured that militia training, personnel, and equipment standards more closely mirrored those of the active duty army.¹²⁸ Yet, despite these reforms, a wide qualitative gap still separated the active army from the militia, as we shall see in the next chapter.

The British Army also retained its volunteer reserve force; yet unlike the Americans, many of its reservists had active duty experience. For most of its history, Britain relied on local militias and a small reserve (starting in the Napoleonic Wars) to reinforce the active army in a crisis; but most militiamen and reservists were amateurs who had little to no ability to deploy abroad, unless they volunteered.¹²⁹ And Britain's long-service model meant that when active duty soldiers completed their enlistment obligations, they were almost certainly too old to fight anymore.

This changed in the 1870s, when Britain began modernizing its armed forces based on lessons learned from the Crimean War and from observing Prussian successes against Austria and France.¹³⁰ One of the most important reforms during this period was the introduction of short service in 1870, which enabled Britain to build a trained reserve. To do so, the army required men to enlist—which was still voluntary—under 12-year contracts, three to seven years of which was with the active

¹²⁷ Doubler, *Civilian in Peace, Soldier in War*, 141; Hill, *The Minute Man in Peace and War*, 172-73.

¹²⁸ LTC James Parker, *The Militia Act of 1903*, 3-4, https://www.jstor.org/stable/25119439?seq=1#page_scan_tab_contents (accessed 14 January 2017); Derthick, *The National Guard in Politics*, 27.

¹²⁹ David French, *The British Way in Warfare, 1688-2000* (London: Unwin Hyman, 1990), 101, 107; Brewer, *The Sinews of Power*, 30, 33, 61.

¹³⁰ Farwell, *Mr. Kipling's Army*, 153.

army and the rest in the reserves.¹³¹ At the same time, it began linking militia battalions to active duty regiments, providing them with closer veteran supervision.¹³² Later, in 1906, it converted much of the militia into the Special Reserve, allowing it to be sent abroad to reinforce the active army in wartime.¹³³ And Special Reservists would not fight as independent units; rather they would fill vacancies in active duty battalions, meaning they would have veteran leadership.¹³⁴ Militiamen not turned into special reservists formed the Territorial Army that served primarily as a homeland defense force.

The benefit of the British reserve system was that many of its reservists had extensive active duty experience. But since the system was voluntary, the British reserve was minuscule compared to the reserves of other Great Powers. And the militiamen of the Territorial Army were not deployable unless they volunteered. Britain, like America, would discover, however, that its geographic advantages would provide the time and space to retrain militiamen prior to committing them to war.

With few exceptions, the development of the trained reserve, be it along the Prussian or Anglo-American lines, was a European and North American affair.¹³⁵

¹³¹ Ibid., 156.

¹³² Ibid., 158.

¹³³ Ibid., 163.

¹³⁴ Bruce Gudmundsson, *The British Expeditionary Force 1914–15* (New York: Osprey, 2005), 11.

¹³⁵ Main exception would be Japan, which rapidly industrialized in the latter half of the 19th century and produced a modern army complete with a reserve system. For more see, Edward Drea, *Japan's Imperial Army* (Lawrence: University of Kansas Press, 2009), 56, 66, 75. Japan, as Drea shows, also underwent a process of identifying and mitigating reserve training deficiencies. Additionally, in the medieval era, China developed the bureaucracy to pay for a professional army, but it made limited use of civilian militias until Mao created village militias in the 1970s. For more on

Through centuries of near-continuous warfare, European states were able—and willing—to develop the administrative, financial, and military methods and capabilities needed to field and maintain mass armies of conscripts and reservists, as historian William McNeill detailed in *The Pursuit of Power*.¹³⁶ While others outside Europe, simply lacked the need or political will to develop such a massive and expensive organization.

However, the conditions that enabled a part-time soldier to more closely approximate the capabilities of a professional were transitory. In the later years of the 19th century and early 20th century, armies developed more complex tactical organizations and concepts to ensure that their forces could function effectively on the modern battlefield. As Table 1.4 shows, armies subdivided their units into smaller semi-independent formations between the 1870 and 1914 to improve their ability to survive on battlefields dominated increasingly by industrial weapons.¹³⁷

By 1914, most armies embraced the Prussian method of using the company (around 250 riflemen) as the basic maneuver unit on the battlefield, as opposed to larger battalions.¹³⁸ At the same time, armies abandoned columnar infantry formations in battle, opting instead to organize riflemen into lines of one or two ranks

China, see David Graf and Robin Higham (eds.). *A Military History of China* (Lexington: University of Kentucky Press, second edition, 2012).

¹³⁶ McNeill, *The Pursuit of Power*, 256.

¹³⁷ John English and Bruce Gudmundsson. *On Infantry* (Westport: Praeger, revised edition, 1994), 4-5.

¹³⁸ Dennis Showalter, *Tannenberg Clash of Empires, 1914* (Washington, DC: Brassey's, 2004), 120-21.

that walked quickly or ran when under fire.¹³⁹ Soldiers could also use cover and concealment while moving; but they had to keep pushing forward to stay with the main effort and to avoid being run over by friendly forces advancing from behind.¹⁴⁰

Armies adopted these tactics in response to rapid improvements in the range and accuracy of firearms during this period. One of the reasons for this development was the advent of metal cartridges and magazines that simplified and accelerated the loading process, as an infantryman no longer had to load and chamber each round manually.¹⁴¹ The U.S. model 1866 Winchester repeater rifle was the first to incorporate some of these technologies; European armies fielded similar rifles, like the French Lebel, by the 1880s.¹⁴² These newer models also included smokeless powders that reduced fouling and, therefore, the reliability of the rifle, while improving the stealth of riflemen given their positions were no longer as easy to detect due to the decrease in smoke emitted when firing a round.¹⁴³ Reducing smoke also improved a rifleman's ability to take aimed shots by clearing his field of vision of obscurants.¹⁴⁴

¹³⁹ English and Gudmundsson, *On Infantry*, 5

¹⁴⁰ Robert Citino, *Path to Blitzkrieg: Doctrine and Training in the German Army, 1920-39* (Mechanicsburg: Stackpole Books, 1999), 14; Peter Hart, *Fire and Movement: The British Expeditionary Force and the Campaign of 1914* (New York: Oxford University Press, 2014), 20.

¹⁴¹ Howard, *War in European Society*, 103.

¹⁴² Wawro, *Warfare and Society in Europe*, 136-38.

¹⁴³ English and Gudmundsson, *On Infantry*, 5.

¹⁴⁴ *Ibid.*

As armies improved the reliability and lethality of rifles, they also developed the first machine guns and improved artillery designs that further increased the depth, breadth, and lethality of the battlefield. In 1885, Hiram Maxim introduced the Maxim machine gun, which fired 600 rounds per minute, giving its four-man crew the ability to annihilate entire platoons or even companies of infantry in short order.¹⁴⁵ Meanwhile, the invention of high explosives in the late 19th century increased the blast power and, thus, the lethality of artillery rounds.¹⁴⁶ Artillery rate of fire also improved as the rest of Europe adopted breech-loading guns by the end of the century. Guns were further improved by mountings that largely eliminated the effects of the force of recoil that followed firing an artillery piece.¹⁴⁷ Crews, therefore, did not have to move guns back into firing position after each shot, which increased rate of fire and consistent accuracy.¹⁴⁸ Such accuracy also enabled gunners to fire effectively at targets beyond line of sight (indirect fire) using maps and trigonometric calculations.¹⁴⁹ The first and most famous of these new model guns—the French 75—entered service in the late 1890s; comparable artillery were put into service by foreign armies over the next decade.¹⁵⁰

¹⁴⁵ Wawro, *Warfare and Society in Europe*, 137.

¹⁴⁶ Murray, “Towards World War,” in *Cambridge Illustrated History of Warfare*, 243; Tenney Davis, *The Chemistry of Powder and Explosives* (New York: Angriff Press, reprint edition, 2012), 331-68.

¹⁴⁷ McNeill, *The Pursuit of Power*, 242.

¹⁴⁸ Howard, *War in European Society*, 103-04; Bruce Gudmundsson, *On Artillery* (Westport: Praeger, 1993), 6.

¹⁴⁹ *Ibid.*, 21.

¹⁵⁰ *Ibid.*, 6-7.

The increasing lethality of the late industrial era battlefield had two important implications for the trained reserve. First, armies became more dependent on reservists as the probability that active duty units would suffer heavy losses due to these new weapons increased. For example, in WWI, 23 percent of the active duty German officer corps and 14 percent of its enlisted died in combat, while many more were grievously wounded.¹⁵¹ Such losses reflected the fact that a single 3,000-man infantry brigade by 1914 could in one minute expel the same amount of firepower that the entire 60,000-man British army discharged during the entire Battle of Waterloo.¹⁵²

Second, the increased dispersal and flexibility of tactical formations in response to these developments increased the intellectual demands on both the enlisted ranks and officers.¹⁵³ Those rising demands widened the qualitative gap between active soldiers and reservists, who generally lacked the time to meet the more rigorous standards that necessarily characterized the training of former. In other words, technological change in the late 19th and early 20th century made reservists more necessary, but at the same time made them less capable relative to their active duty counterparts, as became evident during the world wars.

¹⁵¹ Keegan, *The First World War*, 6-7.

¹⁵² Holger Herwig, *The First World War: Germany and Austria-Hungary, 1914-1918* (London: Bloomsbury, second edition, 2014), 49.

¹⁵³ Officership is a term that militaries often use to describe the professional standards of being an officer. For example, see RAND Corporation's definition of Officership," at https://www.rand.org/content/dam/rand/pubs/monograph_reports/MR470/mr470.appb.pdf (accessed 10 April 2020).

Table 1.4: The Increasing Complexity and Lethality of War: 1789 to 1914			
	Wars of the French Revolution	Franco-Prussian War	WWI
Maximum Frontage an Infantry Battalion could Cover (organized in line)	~628m	~1,110m	~3,100m
Mission Essential Combat Equipment for an Infantry Company	2 (musket and bayonet)	2 (rifle and bayonet)	5 (Rifle, bayonet, light machine guns, crew-served machine guns, rifle grenade)
Max Effective Firing Range of Rifles or Muskets (area target)	>250m	188 to 457m	>549m
Rifle /Musket Rounds Per Minute (RPM)	2 to 3 RPM	5 to 10 RPM	10 to 15 RPM
Effective Firing Range of Supporting Towed Cannons/Howitzers (Division-level and below)	400 to 1,200m	3,800m	~8,500 m - ~11,800 m
Number of Maneuverable Sub-Units in an Infantry Battalion	9	4	12 - 24

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¹⁵⁴ Rothenberg, *The Art of Warfare in the Age of Napoleon*, 76, 155; Franco-Prussian War; Chassepot and Dreyse Needle Rifle range taken from Remarks by Raja Radhakanta Deva, on Art. XI., *Journal Royal Asiatic Society*, Vol. XVI, p. 201 Volume 17 1860, 31; Data on artillery comes from Gudmundsson, *On Artillery*, p. 1; Data on frontage during Franco-Prussian War produced by breaking a division frontage into battalion sectors. According to data available in Geoffrey Wawro's *The Franco Prussian War*, p. 98, and Solka, *German Armies: 1870-71 (I)*, 6, 24; a division could cover around 2km and within that 2km front a battalion would cover around 200m each (2 infantry brigades per division, 2 infantry regiments per brigade, 3 infantry battalions per regiment); data on maneuverable units within a battalion comes from the example of a Prussian infantry battalion that generally had four maneuver companies, as reported in Solka, *German Armies: 1870-71 (I)*, 24; Number of subunits comes from a German infantry division in August 1914, as reported by Bruce Gudmundsson, *Stormtroop Tactics: Innovation in the German Army, 1914-1918: Innovation in the German Army, 1914-18 (Westport: Praeger, 1995)*, 19, 95-97. This organization was similar across Europe, per English and Gudmundsson, *On Infantry*, 8. Infantry battalion had four companies; the companies each divided into three platoons; there were squads but, in 1914, they did not have a tactical function; maneuver essentially was a platoon-level task, p. 19; platoons, however, could split in some circumstances into half platoons, p. 22. I also used a U.S. M1903 Springfield rifle for this data, as provided in War Department, *Basic Field Manual: U.S. Rifle Caliber .30 M1903*, 4. Frontage used by looking at frontage for a German infantry corps during the invasion of France in 1914. Order of battle data for WWI from location 254 in the Thomas, *The German Army in World War I (I)*.

Section 2: The Failures of Industrial Era Reserve Models

The world wars revealed how technological change significantly reduced the tactical efficiency of 19th century reserve organizations. During both wars, the vast majority of reservists performed poorly relative to their active duty counterparts, leading to major tactical and strategic setbacks in some cases. These struggles resulted from the fact that armies failed to make substantial changes to their industrial era reserve training and personnel policies, despite the increasing intellectual and physical demands of soldiering. Those demands were rising because armies developed increasingly sophisticated technologies and tactics to restore mobility to the battlefield after the bloody stalemates of the first two years of WWI. And reservists training 30 days a year or less simply lacked the time and resources to execute those tactics effectively without substantial pre-deployment training—training that most armies were incapable or unwilling to provide—or direct supervision from veteran leaders.

WWI revealed the extent to which the armies of Europe came to rely on reservists. As shown in Table 1.5, most of the main belligerent's combat power resided in their reserve components. But except for Germany, none maintained high levels of reserve readiness in peacetime. And when war broke out in 1914 there was little to no time to resolve any personnel, equipment, or training deficiencies.

Table 1.5: Reserve and Active Army Strength – 1914 (Pre-War) ¹⁵⁵		
Country	Active Army	Reserve and Militia
Austria-Hungry	415,000	2,935,000
France	600,000	2,400,000
Germany	800,000	2,200,000
Italy	265,340	3,127,881
Russia	1,500,000	4,500,000
Serbia	180,000	170,000
UK	156,110	461,667

Armies that went to war in 1914 and 1915 with a reserve of discharged conscripts, like France, Austro-Hungry, Russia, and Italy, had not maintained well-trained and well-equipped reserve formations for several reasons. For one, the aforementioned changes to the character of war required armies to adopt looser infantry tactics and to integrate more specialized equipment, like machine guns and grenades, into infantry formations.¹⁵⁶ Such changes necessitated increases in the amount of training days that reservists required to maintain proficiencies in their respective military occupations.¹⁵⁷ But budgetary, political, and operational considerations prevented many armies, such as those of Italy, Russia, and Austria-Hungry, from increasing reserve training or providing reservists with satisfactory equipment.¹⁵⁸ Additionally, recalling men from their civilian lives for intensive peacetime exercises was risky. Recalled reservists often resented disruptions to their

¹⁵⁵ Staff Writers, *The Statesman's Yearbook 1914* (London: Macmillan and Co, 1914), 55, 880; Keegan, *The First World War*, 21; Herwig, *The First World War*, 79; Hew Strachan, *The First World War* (New York: Penguin Books, 2003), 18; Showalter, *Tannenberg*, 71; Geoffrey Wawro, *A Mad Catastrophe: The Outbreak of World War I and the Collapse of the Habsburg Empire* (New York: Basic Books, 2014), 55, 66.

¹⁵⁶ For more on this issue, see Echevarria, *After Clausewitz*, 13-15, 31-32.

¹⁵⁷ Ibid. 38-39.

¹⁵⁸ Gooch, *The Italian Army and the First World War*, 14-5; Kennedy, *The Rise and Fall of Great Powers*, 212; Wawro, *A Mad Catastrophe*, 6-7.

civilian lives; and such resentment could—and in some cases did—create domestic political problems.¹⁵⁹

Operational demands and immigration practices also restricted reserve training in some cases. In Italy, for instance, reservists often lost training time responding to civil strife or instability in the colonies.¹⁶⁰ Millions more had emigrated to the United States, Canada, and South America often in pursuit of employment opportunities.¹⁶¹ And many returned to Italy in 1915 and 1916 to serve in the war, but only after missing years of refresher training.¹⁶²

Due to these problems, many reservists struggled to fight according to the standards expected of them in 1914 and 1915; and, consequently, they suffered heavy losses that in some cases led to major tactical and strategic setbacks. Poorly trained Austro-Hungarian reservists, for instance, broke down when forced to march carrying sixty pound packs during a failed campaign to conquer Serbia in the summer and fall of 1914.¹⁶³ One Austrian officer commanding reservists recalled how during a key battle in that campaign he had to halt his advance “because of the poor physical conditioning of my men...”¹⁶⁴ Worse, most Austro-Hungarian reservists did not

¹⁵⁹ See examples in case studies that follow this chapter and in Wawro, *A Mad Catastrophe*, 9, 80.

¹⁶⁰ Gooch, *The Italian Army and the First World War*, 20, 58.

¹⁶¹ Fiorello Ventresco, “Loyalty and Dissent: Italian Reservists in America During World War I,” *Italian American*, Vol. 4, No. 1 (Fall/Winter 1978), 93, 95.

¹⁶² *Ibid.*

¹⁶³ Wawro, *A Mad Catastrophe*, 146, 159.

¹⁶⁴ *Ibid.*, 148.

know how to fight in open order skirmish lines, forcing their commanders to pack them into dense columns, which the Serbians decimated with artillery fire and machine guns.¹⁶⁵ As a consequence of these issues—and many other readiness and leadership problems—the Austro-Hungarian army suffered devastating defeats at the hands of the Serbians and their Russian allies in 1914 and early 1915.¹⁶⁶ Similarly, Russia and France packed their reservists into dense formations because they had little trust in their ability to fight without close supervision from active duty officers.¹⁶⁷ Such tactics, however, almost certainly led to higher battlefield losses that contributed to the inability of both powers to meet their tactical and strategic objectives in 1914.

Anglo-American reserve models also proved inadequate. Like the other major WWI belligerents, Britain was highly dependent on reservists. In fact, when the British Expeditionary Force (BEF) deployed to France in August 1914, over half of its strength came from the reserve, as shown in Table 1.6.¹⁶⁸ However, even though many British reservists were experienced veterans, they were not at a high state of readiness when activated on 04 August 1914. This was the case for two reasons. First, many had, in the words of one British officer from the time, “grown

¹⁶⁵ Ibid., 151.

¹⁶⁶ For a full account of the numerous deficiencies of the Austro-Hungarian military, see Wawro, *A Mad Catastrophe*.

¹⁶⁷ Jonathan House, *Combined Arms Warfare in the Twentieth Century* (Lawrence: University of Kansas Press, 2001), 26; Showalter, *Tannenberg*, 123; the French also sent older reservists overseas to help defend colonies and free up regulars to return to France, as discussed briefly by Boot in *Invisible Armies*, 182.

¹⁶⁸ Times Military Correspondent, “The Expansion of the Army,” *The Times*, 16 September 1914.

soft...working as civilians” and were not physically prepared for the challenge of carrying kits that weighed up to 60 pounds in the “terrific [summer] heat” of northern France.¹⁶⁹ Second, most had little training and no experience fighting a state adversary as powerful as Germany; instead, they were more well-suited for fighting guerrillas in the colonies.¹⁷⁰ And the hasty mobilization in August provided them few opportunities to gain any additional training before being rushed into combat. Instead, the short mobilization period focused on routine administrative tasks, such as receiving equipment and moving to ports of embarkation. Some units even wasted precious time organizing and participating in parades and other festivities.¹⁷¹

Table 1.6: Planned Percentage of British Reservists in the Expeditionary Force (Estimates are from 01 February 1913) ¹⁷²		
Division	Combat Arm	Percent Reserve
1 st Division	Infantry	59%
	Field Artillery	50%
2 nd Division	Infantry	60%
	Field Artillery	58%
3 rd Division	Infantry	59%
	Field Artillery	60%
4 th Division	Infantry	55%
	Field Artillery	53%
5 th Division	Infantry	62%
	Field Artillery	55%
6 th Division	Infantry	59%
	Field Artillery	63%
Cavalry Division	Cavalry	27%
	Horse Artillery	57%

¹⁶⁹ Some units conducted basic training on basic tasks such as rifle marksmanship, as described by J.G.W. Hyndson, *From Mons to First Battle of Ypres* (Auckland: Pickle Partners, 2015 [1933]), location 94 (6%) [Kindle e-book].

¹⁷⁰ Hart, *Fire and Movement*, 94-96, 108; Herwig, *The First World War*, 70.

¹⁷¹ Hart, *Fire and Movement*, 47-48; Staff Writers, “Reservists of Crediton,” *Western Times*, 17 November 1914; Hyndson, *From Mons to First Battle of Ypres*, location 78 (5%) [Kindle e-book].

¹⁷² Gudmundsson, *The British Expeditionary Force, 1914-15*, 19.

How well British reservists performed in battle is difficult to determine, given the BEF's six divisions intermixed reservist with active duty battalions.¹⁷³ On the positive side, British reservists who had served in the Boer War a decade earlier as active duty soldiers demonstrated superior marksmanship skills that helped them inflict heavy losses on the German First Army that stumbled into the BEF's lines near Mons on 23 August.¹⁷⁴ But they—and their active army counterparts—were underequipped, lacking howitzers and hand grenades.¹⁷⁵ And they were unpracticed in collective tactical actions against the army of a European great power, let alone the formidable army of the German empire.¹⁷⁶ Such deficiencies enabled the Germans to outgun and outmaneuver them in August and September 1914.¹⁷⁷ Several months later, after gaining battlefield experience, the BEF performed better, helping to defeat a German attack at Ypres, albeit against an exhausted and depleted force that included university students rushed to battle with limited training.¹⁷⁸

¹⁷³ Hart, *Fire and Movement*, 47-48; Staff Writers, "Physique of the Army Reservists," *The Aberdeen Journal*, 14 August 1914.

¹⁷⁴ Gudmundsson, *Stormtroop Tactics*, 11-13; Showalter, "Maneuver Warfare," in *The Oxford Illustrated History of the First World War* (New York: Oxford University Press, second edition, 2014), 43; Barbara Tuchman, *The Guns of August: The Outbreak of World War I* (New York: Random House, 1989), 195; Hart, *Fire and Movement*, 86-87. Of note on the eve of the war as many of 65 percent of reservists in some counties in England were former regulars, per J.G. Hicks, "The National Reserve," *Royal United Services Institution*. No. 57 (1913), 666; Staff Writers, "Our Troops in France," *The Times*, 20 August 1914.

¹⁷⁵ Herwig, *The First World War*, 70.

¹⁷⁶ Ibid.

¹⁷⁷ Ibid.

¹⁷⁸ Showalter, "Maneuver Warfare," in *The Oxford Illustrated History of the First World War*, 46; John Keegan, *A History of Warfare* (New York: Vintage Books, 2012), 358-59; Heinz Guderian, *Achtung-Panzer! The Development of Tank Warfare* (London: Cassell, 2012 [1937]), 41; Herwig, *The First World War*, 113.

The fight at Ypres and the engagements leading up to it, essentially destroyed the BEF, forcing Britain to call upon volunteers, militiamen (the Territorials), colonial troops, and eventually conscripts to replenish the army's ranks.¹⁷⁹ However, it took around a year to train, equip, and deploy such replacements, essentially leaving the French to defend the western front on their own until late 1915.¹⁸⁰ In short, British reservists helped slow the German invasion of France—an important operational and strategic contribution. But tactically, they were outmatched by their German counterparts due to their small size, limited pre-war training in conventional military operations, and hasty mobilization that prevented substantial pre-deployment training and physical conditioning.

The Americans had unique challenges—and advantages—when it came to their reserves. As discussed in more detail in the next chapter, the Americans were unable to maintain a high level of reserve readiness in peacetime because their combat reserve—the National Guard—was led by amateur officers and manned by inexperienced soldiers. Unsurprisingly, when mobilized in 1917, the guard was in a poor state of readiness. But the Americans had the advantage of time and space that

¹⁷⁹ Murray, "Towards World War," in *The Cambridge Illustrated History of Warfare*, 273; Showalter, "Maneuver Warfare," in *The Oxford Illustrated History of the First World War*, p. 46; Peter Young, *The British Army: 1642-1970* (London: William Kimber, 1967), 220.

¹⁸⁰ Murray, "Towards World War," in *The Cambridge Illustrated History of Warfare*, 273. See discussion of territorial units histories in Ray Westlake and Mike Chappell. *British Territorial Units 1914–18* (Oxford: Osprey Publishing, 2013). The long period of training also reflected the fact that Britain lacked the infrastructure to rapidly mobilize, equip, and train personnel at the start of the war, as described by Denis Winter in *Death's Men: Soldiers Of The Great War* (New York: Penguin, 2014), 37-49; there was also political concerns about sending volunteer armies to Europe in that they could be slaughtered due to insufficient training and equipment, as discussed by Nicholas Lambert in *Planning Armageddon* (Cambridge: Harvard University Press, 2012), 307; for more details on particular territorial units and experiences see *6th Battalion the Cheshire Regiment in the Great War: A Territorial Battalion on the Western Front, 1914-1918* (South Yorkshire: Pen & Sword, 2017).

allowed them to train and reorganize their guard divisions for almost a year prior to deployment. By the time they entered combat in mid-1918, they were nearly identical to formations composed of draftees and volunteers; and, for the most part, they performed their missions adequately.

The German case was different. At the start of the war, it placed great trust in its reserves and militia, assigning them key missions on both the eastern and western fronts.¹⁸¹ It did so for two reasons. For one, it had no other choice but to use them. Although it maintained a large standing army, Germany was outnumbered in WWI because it was fighting a two-front war against France and Britain in the west and a massive Russian army in the east. German military planners, therefore, had to maximize all available military manpower—active, reserve, *Landwehr*, and even the *Landstrum* (militiamen who had little or no military training)—to win the war.¹⁸²

Second, Germany could expect that its reservists would perform well because they maintained high leadership and training standards. In terms of leadership, it installed veteran active duty officers in many key command and staff positions at the company-level and above.¹⁸³ And some reserve officers went through a rigorous

¹⁸¹ German General Staff, 1905 Memo: War Against France, translated into English and available at http://ghdi.ghi-dc.org/sub_document.cfm?document_id=796 (accessed 16 April 2020). Ultimately, Germany only sent 23 active and 11 reserve corps into France in August 1914, per Herwig, *The First World War*, 76.

¹⁸² Showalter, *Tannenberg*, 33-34, 61, 123. Of particular concern was if Russia and the United States, given their larger populations and added industrial strength that could reinforce France and Britain. As described by Holger Afflerbach in *The Oxford Illustrated History of the First World War*, 29, Germany and its allies had a total mobilized strength of around 5.5 million soldiers; its French and Russian adversaries could mobilize around 7 million soldiers plus about 350,000 British soldiers in 1914; Keegan, *The First World War*, 38

¹⁸³ Showalter, *Tannenberg*, 124.

selection program under which they volunteered for a year of active duty training.¹⁸⁴ During that year, volunteers focused almost exclusively on combat and leadership training, while avoiding administrative tasks that consumed much of a conscript's time and energy.¹⁸⁵ Afterwards, they took exams; and those who scored highest were eligible for reserve commissions, while others became reserve NCOs.¹⁸⁶

Reserve units also underwent intensive peacetime training, assembling twice during their four or five years of reserve service to refresh or build upon the previous training they had received as conscripts. Those training periods varied in length, ranging from one month to eight weeks, as shown in Table 1.7 (far more than the four or five days a year they trained in the 1860s and 70s).¹⁸⁷ Additionally, once discharged into the *Landwehr*, a reservist completed two additional training sessions—each of which was between eight and fourteen days—over a ten year period.¹⁸⁸ Thus, a discharged conscript would likely retain the skills and experience for front-line service until he was about 30 years old.

Table 1.7: Stages of German Military Service in 1914		
Age	Formation	Training Requirements
17-20*	Landsturm (Home Guard)	-
21-22*	Active Army or Supplementary Reserve	2 Years full-time
23-27	Reserve	2 to 8 months a year
28-38	Landwehr	8 to 14 days over 10 years
39-45	Landsturm (Home Guard)	None

¹⁸⁴ Drea, *Japan's Imperial Army*, 66, 75.

¹⁸⁵ Gudmundsson, *Stormtroop Tactics*, 23.

¹⁸⁶ Ibid.

¹⁸⁷ Staff Writers, *Statesman's Yearbook 1914*, 901; Walter Bloem, *The Advance from Mons 1914: The Experiences of a German Infantry Officer* (West Midlands: Helion & Company, 2011 [1916]), location 153 (5%) [Kindle e-book].

¹⁸⁸ Staff Writers, *Statesman's Yearbook 1914*, 902.

German reserve units also received extra training in the weeks and months leading up to the first battles of August and September 1914.¹⁹⁰ Some units, for instance, completed four weeks of field exercises that summer.¹⁹¹ While others conducted refresher training in the initial weeks of the war under the supervision of active duty and reserve officers.¹⁹²

Such training and high leadership standards almost certainly contributed to the German reserves' successes in the opening months of the war. For instance, in October 1914, a German reserve corps composed mostly of *Landwehr* and recalled reservists captured the critical fortress city of Antwerp from Belgian and British forces. German reserve corps also defeated French and Belgian forces in other engagements during the opening stages of the war.¹⁹³ On the eastern front, the 3rd Reserve Division and a division of *Landwehr* played key roles in the German victory against the Russians at Tannenberg and subsequent operations that fall.¹⁹⁴

¹⁸⁹ Writers, *Statesman's Yearbook 1914*, 902; Thomas, *The German Army in World War I (1)*, location 27 (Kindle E-Book).

¹⁹⁰ Bloem, *The Advance from Mons 1914*, location 153 (5%) [Kindle e-book].

¹⁹¹ Erwin Rommel, *Infantry Attacks* (Barnsley: Greenhill Books, reprint edition, 1990 [1935]), 2; Guderian, *Achtung-Panzer*, 41.

¹⁹² Rommel, *Infantry Attacks*, 2; Guderian, *Achtung-Panzer*, 41.

¹⁹³ Gudmundsson, *Stormtroop Tactics*, 3-5.

¹⁹⁴ Erich Ludendorff, *My War Memories: 1914-1918* (London: Hutchinson & Co., 1919), 55-56, 66.

There were, however, setbacks. Older reservists, unlike their youthful counterparts in the active army, were often apprehensive about the prospect of war, many weeping in fear as they reported to duty in July and August 1914.¹⁹⁵ Physical fitness levels were also uneven. One reserve officer recalled in his memoirs how many older men in his unit “groaned under the burden of their heavy packs” and collapsed on the roadside during marches to the front, likely helping to slow Germany’s failed attempt to encircle and destroy the French army.¹⁹⁶ And, as discussed above, second-line German reserve troops from the *Landstrum* performed poorly during the First Battle of Ypres. Some hastily assembled reserve units also struggled in combat in the late fall on the eastern front.¹⁹⁷

Yet for the most part, the German reserves performed their jobs in the manner expected of them in 1914. But Germany simply lacked enough of them to defeat the French and British armies on the Western Front.¹⁹⁸ Such shortages were exacerbated by battles on the Eastern Front that consumed multiple reserve and *Landwehr* divisions.¹⁹⁹ The war, therefore, stalemated in the West.²⁰⁰

¹⁹⁵ Herwig, *The Marne*, 28.

¹⁹⁶ Bloem, *The Advance from Mons 1914*, location 378 (12%) [Kindle e-book].

¹⁹⁷ Ludendorff, *My War Memories*, 96; Showalter, *Tannenberg*, 188-190.

¹⁹⁸ Erich Falkenhayn, *The German General Staff and its Critical Decisions, 1914-1916* (Auckland: Pickle Partners Publishing, 2013 [1919]), location 297 (8%) [Kindle e-book].

¹⁹⁹ Falkenhayn, *The German General Staff And Its Decisions, 1914-1916*, location 297 (8%) [Kindle e-book]; for more on battles on eastern front and the demands on reservists, see Herwig, *The First World War*, 144-48.

²⁰⁰ Falkenhayn, *The German General Staff And Its Decisions, 1914-1916*, location 297 (8%) [Kindle e-book].

As the war stalemated in late 1914, the traditional reservist—the part-time soldier activated and sent into battle within weeks or less of mobilization—essentially disappeared from the battlefield. In the case of the Austro-Hungarians, nearly their entire first and second-line reserves were destroyed; BEF losses were also quite high, as discussed above.²⁰¹ And for the rest of the Allies and to a lesser extent the Germans, most of their reserves had been committed; those who survived had become hardened combat veterans. Thousands more, meanwhile, were in the training pipeline for deployment, meaning that by the time they reached the front there was little difference between them and new untested volunteers and active duty soldiers.²⁰² In other words, the lines separating a reservist from the active duty soldier blurred and eventually disappeared by 1916 and 1917, the lone exception being the Americans (see chapter 2).²⁰³

After 1914, the Central Powers and Allies experimented with new tactics to break the stalemate; and in doing so, they set the stage for the contemporary reserve dilemma.²⁰⁴ This change in tactics was a response to the fact that the established close order infantry and supporting artillery tactics of 1914 and 1915 proved incapable of producing operational or strategic breakthroughs. Infantry advancing in

²⁰¹ Herwig, *The First World War*, 116.

²⁰² The exception being the U.S. Army. See chapter 2.

²⁰³ A similar dynamic occurred in WWII, as discussed by Paul Fussell in *The Boys' Crusade: The American Infantry in Northwestern Europe, 1944-1945* (New York: Modern Library Publishers, 2003), location 387 (23%) [Kindle e-book]. Fussell's comments are in regard to American divisions in WWII; but similar trends unfolded in other armies in both WWI and WWII as a unit's original veteran and reserve members died, were wounded or captured, or moved on to other positions.

²⁰⁴ Citino, *The Path to Blitzkrieg*, 15-16.

long skirmish lines simply suffered too many losses attempting to breach prepared enemy defenses defended by machineguns and artillery.²⁰⁵ And even if they were able to breach and seize forward defenses, they generally lacked the combat power to overcome a counterattack from enemy reserves positioned in rear trenches. Basic tactical change was necessary.

The German army was the first to innovate by developing more flexible open order infantry tactics. Germany had military traditions dating back to the 19th century that encouraged and enabled such a course of action. As discussed above, in the 19th century, German general staff officers developed a concept called *Auftragstaktik* (mission tactics).²⁰⁶ This approach to command allowed junior and mid-ranking officers to make independent tactical decisions based on their understanding of the situation at hand and their commander's intent and desired endstate.²⁰⁷ And by allowing subordinates to execute what present U.S. Army doctrine calls “disciplined initiative,” German officers and NCOs were more willing and able to experiment with new tactics.²⁰⁸ Germany, for instance, allowed mid and junior-level officers to train and fight based on the unique needs and preferences of their units, thereby creating space for experimentation and innovation.²⁰⁹ In fact, as early as 1914, some units

²⁰⁵ For discussion on dangers of close order tactics, see observations of Erwin Rommel—a junior infantry officer in WWI—in *Infantry Attacks*, 29-30; Keegan, *The First World War*, 6-7.

²⁰⁶ Robert Citino, *Blitzkrieg to Desert Storm: The Evolution of Operational Warfare* (Lawrence: University of Kansas Press, 2017), 19.

²⁰⁷ *Ibid.*, 19.

²⁰⁸ Gudmundsson, *Stormtroop Tactics*, 18.

²⁰⁹ English and Gudmundsson, *On Infantry*, 63.

were allowing infantry companies to divide into smaller platoon and squad-sized elements for reconnaissance and attack missions, not just in drill.²¹⁰ And those smaller elements could make greater use of cover and concealment while crossing the fire swept zone, thereby reducing their exposure to observation and fire.²¹¹

Ultimately, what this experimentation led to was the creation of the German assault troop detachments.²¹² These specialized units—formed at first from cohorts of specially selected volunteers—advanced ahead of the main body in an attack to raid, seize, or destroy key positions, like machine-gun emplacements.²¹³ To ensure they could survive the journey across “no man’s land,” the Germans organized the detachments into small and nimble squad-sized elements (about 10-12 men) equipped with specialized equipment like light machine guns and hand grenades.²¹⁴ Such weapons provided squads and platoons the firepower to destroy or suppress fortified positions, enabling them to become “self-contained” fighting units.²¹⁵ When successful, the assault detachments could clear the way for the main attack by reducing and confusing opposing forces. By the end of the war, the Germans—and to a lesser extent the Allies—were widely employing these tactics.²¹⁶

²¹⁰ Rommel, *Infantry Attacks*, 3-4, 10.

²¹¹ Gudmundsson, *Stormtroop Tactics*, 24.

²¹² Citino, *The Path to Blitzkrieg*, 16.

²¹³ English and Gudmundsson, *On Infantry*, 18-19, 20; Citino, *The Path to Blitzkrieg*, 16.

²¹⁴ Gudmundsson, *Stormtroop Tactics*, 171.

²¹⁵ Staff Writers, “Infantry Tactics, 1914–1918,” *Royal United Services Institute*, Volume 64 (1919), 461.

²¹⁶ Citino, *The Path to Blitzkrieg*, 16; Staff Writers, “Infantry Tactics, 1914-1918,” 461.

During the interwar years, armies further refined their tactical and technical capabilities to develop the means and methods for restoring mobility to the battlefield. Despite experimentation with more fluid infantry tactics, warfare had stalemated on the Western Front for three reasons. First, armies could not accurately strike and degrade opposing forces beyond the first several lines of trenches.²¹⁷ This inability to attack in-depth allowed opposing forces to husband reserves beyond the range of visual observation for counterattacks that often reversed the gains of any offensive actions. It also meant that armies could not strike and degrade the division, corps, and army-level headquarters and logistics nodes that controlled and sustained frontline forces and reserves. Second, armies could not provide their infantry with adequate protection to maintain combat effectiveness as they crossed through “no man’s land” between friendly and enemy forward lines. And finally, armies lacked effective means to communicate with forces who managed to advance beyond line of sight.

To resolve these three challenges, theorists like Basil Liddell Hart and military professionals like Heinz Guderian proposed building highly professional mechanized forces that could fight as combined arms teams.²¹⁸ That is, the integration of infantry, artillery, armored vehicles, and even aircraft and airborne infantry. With these capabilities, armies gained the potential to create what Liddell Hart called the “expanding torrent” to improve the survivability of frontline forces and to enable

²¹⁷ Staff Writers, “Infantry Tactics, 1914-1918,” 468-69.

²¹⁸ Heinz Guderian, *Panzer Leader* (Cambridge: De Capo Press, second edition, 2002 [1952]), 20.

attacks in-depth against numerically stronger forces. As Liddell Hart explained in influential articles penned in the 1920s, armies could reduce infantry losses by the “intelligent maneuver of firepower” that concentrated mobile forces on narrow fronts—as opposed to advancing in long skirmish lines—to identify and breach gaps in enemy lines.²¹⁹ Once gaps were created—using infantry supported by combat engineers and anti-tank forces—mechanized and motorized units could exploit the breach to execute attacks in-depth on opposing command and control hubs, logistics centers, and reserves, as illustrated below in Figure 1.1.²²⁰

Technological advancements enabled such tactics to become feasible in the 1920s and 30s. Improved and more powerful internal combustion engines, for instance, allowed tanks and other armored vehicles to carry heavier payloads and move faster and more reliably over greater distances. And portable radios provided commanders the means to coordinate these forces beyond line of sight.²²¹ Improvements to aircraft design and targeting methodologies and technologies, meanwhile, gave armies the ability to locate and strike high value targets, like command centers, in the support zones behind the frontlines.²²² Warfare, therefore,

²¹⁹ Basil Henry Liddell Hart, “Man-in-the-Dark Theory,” *The Royal Engineers Journal*. No. 33 (1921), 6-7.

²²⁰ Hart, “Man-in-the-Dark Theory,” 13-14.

²²¹ Citino, *Blitzkrieg to Desert Storm*, 3, 21-22.

²²² Baily, “The First World War and the Birth of Modern Warfare,” in *The Dynamics of Military Revolution, 1300-2050* (New York: Cambridge University Press, 2001), 142.

was no longer a “linear affair” as armies gained the ability to strike rapidly and accurately in depth.²²³

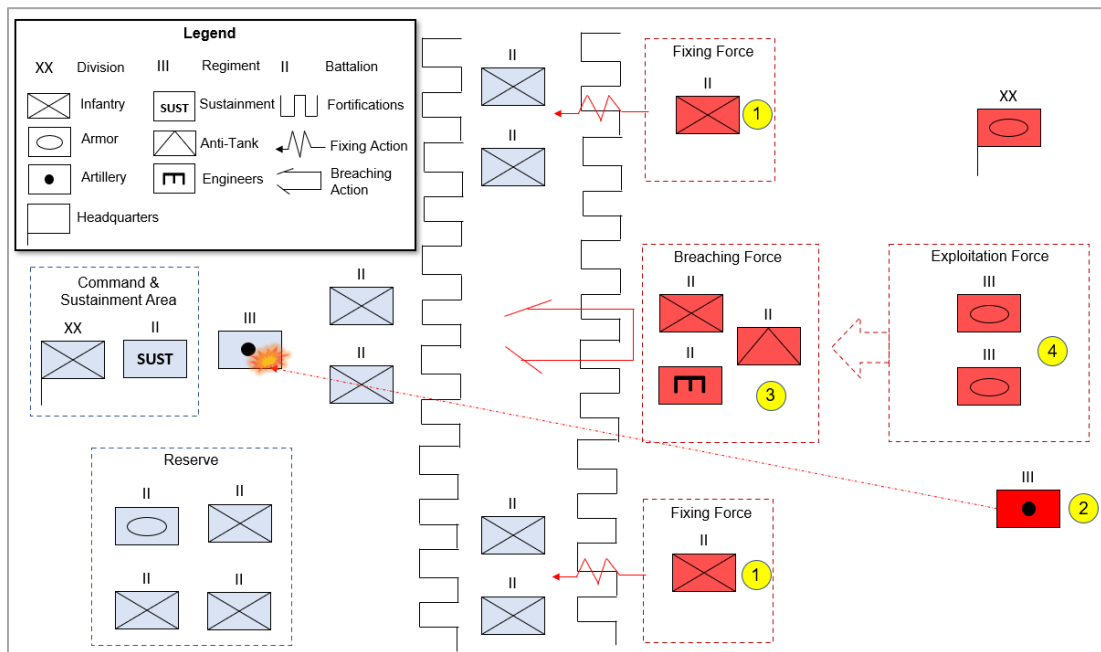


Figure 1.1: An Expanding Torrent Example

In this illustration, a division-sized armored force (red) attacks an infantry division (blue) arrayed in a defense in-depth along two lines of fortifications. To attack in depth, red force first fixes (prevents from moving) the forward infantry battalions using direct fire capabilities (step 1). At the same time, or shortly thereafter, artillery conducts counterbattery fire or attacks on other targets in depth, such as the opposing tactical reserve (step 2). Then a task force of infantry, engineers, and anti-tank forces locates and breaches a gap in the blue force defense (step 3). Once a breach is created, an exploitation force—in this case two armored regiments—moves through the breach to attack deep into the command and sustainment areas or the reserve (step 4). (Source: author’s graphic based on data in Hart, “Man-in-the-Dark Theory”)

But to fight and survive in this non-linear battlespace, soldiers needed to develop “skills of an order of difficulty beyond the comprehension of most soldiers outside [the twentieth] century,” as historian John Keegan once noted.²²⁴ Leaders from the battalion-level down to the individual soldier needed the ability to “think

²²³ Ibid., 135.

²²⁴ Keegan, *The Face of Battle*, 319-320.

and act on their own” and “analyze any situation and exploit it decisively and boldly,” in the words of a 1920s German field manual.²²⁵ They needed such skills for two reasons. For one, units had to disperse more to survive in an extremely lethal combat environment, reducing the ability of officers to provide direct supervision to their soldiers and NCOs. Second, threats and opportunities would arise much faster in this new battlespace, requiring junior and mid-level leaders to take the initiative more. It would be the responsibility of lieutenants and captains and their NCOs to find gaps in opposing lines and make the critical initial breaches necessary for an attack in-depth to unfold.²²⁶ In other words, the days in which the average soldier and junior officer acted essentially as well-drilled automatons were over. Now they needed to continue to memorize key tactical procedures—such as loading and firing their assigned weapons—and exercise independent judgement to seize and retain the initiative to exploit opportunities and respond to threats in a rapidly changing battlespace.

Soldiers also needed to develop greater technical skills. The mechanization and motorization of armies created new technical requirements, as soldiers had to operate and maintain trucks and armored vehicles.²²⁷ Additionally, they had to understand how to use critical support technologies, such as field radios, and new individual weapons, like the anti-tank rocket and light machine gun. All these

²²⁵ Murray, “May 1940: Contingency and Fragility of the German RMA,” in *The Dynamics of the Military Revolution*, 159.

²²⁶ Hart, “Man-in-the-Dark Theory,” 13-15.

²²⁷ For example, German soldiers in the early 1930s had to take multi-week training courses in vehicle maintenance and operations, per Hans Von Luck, *Panzer Commander: The Memoirs of Colonel Hans Von Luck* (New York: Dell Books, 1989), 14.

technologies, moreover, created new administrative distractions—what historian Eugenia Kiesling calls “the tyranny of the mundane”—as units had to allot additional time for inventorying and maintaining new equipment and other matters “tangential to fighting.”²²⁸

Reservists—be they volunteers or discharged conscripts—generally lacked the time to keep up with these new administrative and training requirements. Although armies were becoming more technically advanced, they generally failed to provide reservists with more time or resources to compensate for these changes. In other words, armies retained 19th century training models, despite significant changes in tactics and technology. Thus, in the words of historian Michael Howard, “technology, which in the 19th century had made mass participation in warfare both possible and necessary, was in the twentieth century to place increasing power in the hands of highly qualified technicians.”²²⁹

The problem, however, was that armies remained dependent on reservists, as they lacked enough technicians and professional soldiers to fight without them, given the increasing size and lethality of the modern battlefield. As John Keegan detailed in *The Face of Battle*, the extended battlefields of the post-WWI era greatly increased the dangers of soldiering. Soldiers no longer only faced a high chance of death or injury from hostile fire along the frontlines; now they faced attacks from airplanes, long-range artillery, airborne infantry, and other new types of forces while in the once

²²⁸ See Kiesling, *Arming Against Hitler*, 7, 84.

²²⁹ Howard, *War in European Society*, 120.

safe rear support areas.²³⁰ And because battles were becoming longer and more intense, the likelihood of soldiers suffering from psychological trauma also increased. In fact, an estimated one and four combatants in WWI suffered from shell shock and other psychological ailments.²³¹ Armies, therefore, needed to have trained reserves to replace such losses—be they from psychological or physical trauma. And they also needed the extra manpower provided by their reserves to seize and secure territory across the extended battlefield. This continued need for reservists—and the struggles for reservists to keep up with changes to the character of war—were evident in the performance of the Allied armies in WWII.

France was particularly dependent on reservists in WWII. But its reserve forces proved incapable of keeping up with the changing tactical and technical requirements of France's interwar military doctrine. And its inability to do so played a key role in France's defeat against Germany in 1940.²³²

France modernized its army in the 1920s and 30s, developing a combined arms capability by incorporating tanks, aircraft, motor vehicles, and anti-tank weaponry into its forces.²³³ And its doctrine was revised by the 1930s to place a greater emphasis on mobile offensive operations. It did so to ensure its army could

²³⁰ See discussion on changing character of battle in concluding chapter of Keegan, *The Face of Battle*, 308-320.

²³¹ Herwig, *The First World War*, 1.

²³² See chapter 4 in Kiesling, *Arming Against Hitler*.

²³³ Robert Doughty, *The Seeds of Disaster: The Development of French Army Doctrine: 1919-39* (Mechanicsburg: Stackpole Books, 2014), 187-88; Robert Doughty, "The French Armed Forces, 1918-1940," in *Military Effectiveness Volume 2: The Interwar Period* (New York: Cambridge University Press, new edition, 2010), 62.

fight a mobile war inside Belgian territory against a German attack, while fighting on the defense further south along the French-German border where it erected an impressive line of fortifications—known as the Maginot Line—to block an invasion from the east.²³⁴

That said, its main combat doctrine by 1940—methodical battle—placed a greater focus on an initial defense and centralized control of operations, unlike the more mobile and flexible doctrine of the Germans.²³⁵ French officers downplayed such differences because France was focused on the strategic defense and because Germany had yet to prove the viability of some of their doctrinal concepts.²³⁶

The French also could not adopt a German-style approach to warfare because they relied on an army of one-year conscripts and reservists for national defense.²³⁷ During the interwar years, France continued to practice conscription, requiring military service of every male French citizen, unless they had an “established physical incapacity.”²³⁸ Under this system—formalized by laws enacted between 1927 and 1928—conscripts served on active duty for one year, after which they entered the reserve, while a cadre of around 100,000 professionals provided leadership to prepare the active army and reserves for mobilization.²³⁹ French

²³⁴ Doughty, *The Seeds of Disaster*, 187; Alistair Horne, *To Lose a Battle: France 1940* (New York: Penguin Books, reprint edition, 2007), 74-75.

²³⁵ Kiesling, *Arming Against Hitler*, 169.

²³⁶ *Ibid.*, 169-70.

²³⁷ *Ibid.*, 168-69.

²³⁸ Doughty, *The Seeds of Disaster*, 17.

²³⁹ *Ibid.*, 20-21.

officials preferred this system for two reasons. One it ensured that all Frenchmen—regardless of class—helped carry the burden of national defense.²⁴⁰ And, second, most officials believed that national mobilization was essential for modern warfare, given high rates of losses suffered by armies WWI.²⁴¹

The French reserve consisted of three organizations. The ready reserve was the first organization a reservist joined after coming off active duty. A soldier served in the ready reserve for three years and drilled with a unit that was supposed to be linked to the active unit with which he served as a conscript.²⁴² After service in the ready reserve, the soldier became part of the first line reserve for sixteen years, during which he completed two three-week training periods.²⁴³ Afterwards, the soldier passed into the second-line reserve for eight years, which required participation in one seven-day training exercise.²⁴⁴

The problem, however, was that this reserve system did not function as intended. In fact, ready reservists did not begin training until 1933, which only amounted to three weeks.²⁴⁵ And some who had served in WWI were excused from training altogether, meaning they were unable to keep up with changes to French

²⁴⁰ Kiesling, *Arming Against Hitler*, 13.

²⁴¹ Ibid.

²⁴² Ibid., 86.

²⁴³ Ibid.

²⁴⁴ Ibid.

²⁴⁵ Ibid.

doctrine and new equipment.²⁴⁶ Budgetary constraints due in part to the high cost of constructing and maintaining the fortresses of the Maginot Line, meanwhile, deprived reservists access to ranges to conduct tank maneuvers and other specialized training.²⁴⁷ The French also had no system in place to ensure reservists trained with the actual unit they would be assigned to in wartime—which denied units opportunities to develop cohesion and learn the strengths and weaknesses of individual members.²⁴⁸ In short, the French reserve was broken. Reservists did not have sufficient opportunities to build and improve upon their individual skills, nor were there sufficient opportunities for reserve units to maneuver collectively.

Some French officers recognized these problems.²⁴⁹ But for a variety of reasons, they were unwilling or unable to do much about it.²⁵⁰ During the late 1920s, for instance, political infighting, anti-militarist attitudes, and an economic downturn severely restricted France's ability to provide the financial support necessary for sustaining an effective reserve training program.²⁵¹ And even when regular training resumed in the 1930s, the administrative demands of managing a unit and its personnel often consumed precious training time.²⁵² Senior French officers also

²⁴⁶ Doughty, *Seeds of Disaster*, 31.

²⁴⁷ Kiesling, *Arming Against Hitler*, 99; Horne, *To Lose a Battle*, 73.

²⁴⁸ Doughty, *Seeds of Disaster*, 31-32.

²⁴⁹ Kiesling, *Arming Against Hitler*, 175, 181.

²⁵⁰ *Ibid.*, 175, 181, 183.

²⁵¹ Doughty, *Seeds of Disaster*, 29; Kiesling, *Arming Against Hitler*, 86; Horne, *To Lose a Battle*, 61-63.

²⁵² Kiesling, *Arming Against Hitler*, 182.

ignored reserve readiness problems or explained them away, assuming they could muddle through in a crisis.²⁵³

France had an opportunity to provide its reservists with around eight months of training during the so-called “phony war” that took place between the German invasion of Poland in September 1939 and the invasion of France in May 1940. During that period, France activated its reserves to deter a German attack. But this activation generated a host of problems. For one, the mobilization of thousands of skilled industrial workers for military service seriously disrupted the French economy, forcing the government to return many to civilian life.²⁵⁴ But this deprived reserve units of key leaders and technicians, thereby disrupting vital training and operational activities.²⁵⁵ Some reserve divisions were short by as many as 50 percent of their officers and NCOs because of the partial demobilization.²⁵⁶ Additionally, those reserve officers who remained mobilized demonstrated poor leadership capabilities and struggled to maintain unit discipline and cohesion.²⁵⁷ Reserve discipline and morale plummeted even further because the winter of 1939-40 was unusually cold and the army lacked enough cold weather equipment to keep soldiers warm.²⁵⁸ Boredom also undermined morale, as most missions such as patrolling the

²⁵³ Ibid., 175, 181, 183.

²⁵⁴ Horne, *To Lose a Battle*, 139.

²⁵⁵ Ibid.; Kiesling, *Arming Against Hitler*, 39.

²⁵⁶ Horne, *To Lose a Battle*, 140.

²⁵⁷ Ibid., 150.

²⁵⁸ Ibid., 147-49.

border went to active duty units or select groups of reservists.²⁵⁹ All of these factors combined meant that the eight month period between reserve activation and the outbreak of war was largely squandered insofar as effective training was concerned.

The defective state of the reserve in the spring of 1940 affected the fighting efficiency of the entire French army because upon mobilization, active units were brought up to their full strength with reservists.²⁶⁰ In fact, active duty units were composed of about 50 percent reservists; and about 85 percent of the French officer and NCO corps were reservists.²⁶¹

Although they were unprepared for war, French reservists and their comrades fought doggedly against the German invasion in May 1940. They performed particularly well when able to fight from prepared battle positions.²⁶² But once pushed from such defenses, they were simply outfought by the thoroughly trained, disciplined, and experienced German army.²⁶³ With these advantages, the Germans were able to shatter French forces and those of its Belgian, Dutch, and British allies, which compelled the French government to sue for terms of surrender.²⁶⁴ Thus, as historian Eugenia Kiesling argued, “France fell, not because its troops were

²⁵⁹ Ibid., 144, 147-49.

²⁶⁰ Kiesling, *Arming Against Hitler*, 85.

²⁶¹ Ibid.; Doughty, “The French Armed Forces, 1918-1940,” in *Military Effectiveness Volume 2*, 43.

²⁶² John Keegan, *The Second World War* (New York: Penguin Books, 2005), 73, 83.

²⁶³ Ibid., 83; Kiesling, *Arming Against Hitler*, 174. The Germans also had the advantage of recent combat experience in Poland, which they had used to inform their training and plans in the lead-up to the May 1940 invasion of France, as described by Gerhard Weinberg in *A World at Arms: A Global History of World War II* (New York: Cambridge University Press, 1994), 122.

²⁶⁴ Ibid., 131.

outnumbered by the Germans, but because they were outfought—and outfought because of a failure to create the cohesive, well-trained, and well-officered reserve units upon which [their] combat power relied.”²⁶⁵

The British reserve component was equally unprepared for war in 1940. As war with Germany seemed more likely in the late 1930s, the British government scrambled to improve its military readiness. One way it did this was by implementing conscription in 1939, allowing military leaders to bring the militia—the Territorial Army (TA)—into active service.²⁶⁶ At the same time, the government authorized an expansion of the TA to deter Hitler.²⁶⁷

On the eve of the battle for France, the British army consisted of around 224,000 active soldiers, 131,000 reservists, and 400,000 territorials.²⁶⁸ And with many of these active soldiers abroad protecting its colonial interests, Britain had to draw on its reserves and TA to build the BEF that deployed to France in 1939, much like it did in 1914. Ultimately, the BEF consisted of 5 active and 5 TA divisions, plus an additional 3 territorial divisions that were assigned to perform labor duties due to their low readiness levels.²⁶⁹

²⁶⁵ Kiesling, *Arming Against Hitler*, 85.

²⁶⁶ French, *Raising Churchill's Army*, 64.

²⁶⁷ *Ibid.*, 14-16.

²⁶⁸ *Ibid.*, 62-64.

²⁶⁹ David Greentree and Adam Hook. *German Infantryman vs British Infantryman: France 1940* (Oxford: Osprey Publishing, 2015), location 242 (Kindle E-Book); French, *Raising Churchill's Army*, 159.

However, during the interwar years, the qualitative gap between the active duty army and the TA widened. One reason for this was that the British army modernized its doctrine during that period to emphasize mobile operations mounted by an army of professional soldiers.²⁷⁰ And in the late 1930s, it started providing its army with more advanced vehicles and equipment to make this doctrine work. But it neglected to provide the TA with time to learn how to use this new equipment and how to execute new tactical concepts.

During the interwar years, the TA was supposed to train four weekends a year and two weeks in the summer (22 days total), while maintaining the same fighting standards as active soldiers.²⁷¹ Few TA units, however, completed such training due in part to limited funding and insufficient resources. For instance, the TA lacked enough funds and personnel to fully staff their units in the 1930s, thereby limiting opportunities for collective training.²⁷² And their facilities were also not large enough for collective training with modern warfighting equipment, such as the tank.²⁷³ Furthermore, the active army in the late 1930s had limited time to supervise the TA and provide mentorship, as it was spending much of its time absorbing and learning

²⁷⁰ French, *Raising Churchill's Army*, 14.

²⁷¹ French, *Raising Churchill's Army*, 172; David Jones, "Pinchbeck regulars?" The role and Organisation of the Territorial Army, 1919-1940 (Ph.D. dissertation, Oxford University, 2016), 133.

²⁷² French, *Raising Churchill's Army*, 53.

²⁷³ *Ibid.*, 172.

how to operate new equipment.²⁷⁴ That new equipment, moreover, generally did not make it to the TA.²⁷⁵

Consequently, much of the British reserve component required extensive retraining once activated in 1939.²⁷⁶ That retraining period, however, was highly constrained because the army had to spend considerable time and energy re-organizing TA units to compensate for the fact that many territorials were medically unfit for service or could not deploy due to family, work, or legal restrictions.²⁷⁷ Moving TA soldiers from their armories to ports of embarkation and onwards to France consumed even more time.

The TA also had deep leadership problems. Throughout the 1920s and 30s, it was chronically short of officers. And those officers it did have were often not trained to the same standards as active soldiers. For instance, many TA officers were unable to attend specific professional development courses due to civilian work and family commitments.²⁷⁸ By failing to attend these courses, they were unable to keep up with changes to British warfighting doctrine. While others—especially those with wartime experience in WWI—proved unwilling or unable to understand these new

²⁷⁴ French, *Raising Churchill's Army*, 172

²⁷⁵ *Ibid.*, 53.

²⁷⁶ *Ibid.*, 62-63.

²⁷⁷ For an extensive examination of this issue see Jones, "Pinchbeck Regulars? The Role and Organisation of the Territorial Army, 1919-1940," 224.

²⁷⁸ French, *Raising Churchill's Army*, 53-54; Jones, "Pinchbeck Regulars? The Role and Organisation of the Territorial Army, 1919-1940," 144-45.

concepts.²⁷⁹ Additionally, many TA officers and NCOs were physically unfit or too old for overseas service in 1939.²⁸⁰ In an attempt to address these issues, the British army started replacing TA officers and NCOs with active duty personnel in the fall of 1939.²⁸¹ But by then it was too late to make substantial improvements to the quality of the TA, especially given shortages of trained officers and NCOs in the active army itself.²⁸²

In short, over half of the BEF in the summer of 1940 was ill-prepared to fight a battle-hardened and well-trained German army. Yet, unlike in 1914, the BEF deployed to France six months before the outbreak of hostilities, providing a relatively lengthy pre-combat training period.²⁸³ But it squandered much of that time building fortifications, not training due to shortages of ranges and the terrible cold of the winter of 1939-40.²⁸⁴ Such lack of training almost certainly contributed to Britain's struggles in combat against the Germans. Fortunately, for the BEF, most of its personnel were able to escape from France at Dunkirk, but at the cost of around 67,000 dead, wounded, or missing soldiers (out of a force of about 390,000).²⁸⁵

²⁷⁹ Ibid., 138.

²⁸⁰ Ibid., 234.

²⁸¹ French, *Raising Churchill's Army*, 53-54.

²⁸² Jones, "Pinchbeck Regulars? The Role and Organisation of the Territorial Army, 1919-1940," 236.

²⁸³ Young, *The British Army, 1642-1970*, 232.

²⁸⁴ Ibid.

²⁸⁵ UK National Archive (online), "Casualties suffered by the British Expeditionary Force May-June 1940," <https://www.nationalarchives.gov.uk/education/worldwar2/theatres-of-war/western-europe/investigation/invasion/sources/docs/1/enlarge.htm> (accessed 10 October 2019).

The other major belligerents in WWII also confronted reserve readiness challenges. As the next chapter shows, the U.S. Army had to restructure and retrain its primary combat reserve—the National Guard—prior to deployment in 1943 and 1944. Meanwhile, the Soviets struggled to build and maintain a trained reserve throughout the interwar years, especially as its armed forces mechanized and professionalized during the 1930s.²⁸⁶ The Japanese, who developed a Prussian style reserve system in the late 19th century, found that their reserve component had widespread disciplinary problems and lacked the same level of professionalism as active units.²⁸⁷ And the Italians failed to maintain a ready reserve during the interwar years and the war itself.²⁸⁸

Germany, however, did not experience similar problems because its army was not dependent on reservists in 1939-40. Treaty restrictions following WWI restricted the German army to 100,000 long service soldiers (twelve years for enlisted; twenty-five for officers) and no trained reserve.²⁸⁹ In response to these constraints, the German army, under the command of Colonel-General Hans von Seeckt decided to develop a highly skilled mobile force to defend itself against much larger armies of

²⁸⁶ Roger Reese, *The Soviet Military Experience: A History of the Soviet Army, 1917-1991* (New York, Routledge, 2002), 64; David Glantz, *The Military Strategy of the Soviet Union: A History* (New York: Routledge, 2001), 91; Richard Overy, *Russia's War: A History of the Soviet Effort: 1941-1945* (New York: Penguin Books, revised edition, 1998), 19-20.

²⁸⁷ Drea, *Japan's Imperial Army*, 68, 197-99.

²⁸⁸ John Gooch, *Mussolini's War: Fascist Italy from Triumph to Collapse, 1934-1943* (New York: Pegasus Books, 2020), 431, 509.

²⁸⁹ Murray, "The World in Conflict," in *The Cambridge Illustrated History of Warfare*, 299; Stephen Bull, *Second World War Infantry Tactics: The European Theatre* (Barnsley, Pen & Sword, 2012), 3.

conscripts and recalled reservists.²⁹⁰ And it developed this force through intensive peacetime training and long-service. Seeckt, moreover, envisioned that this small, professional army could one day serve as a cadre for an expanded force, if Germany reintroduced conscription and reserve service.²⁹¹ With that in mind, he made sure to retain only the best officers and NCOs—nearly all of whom were hand selected volunteers—while ensuring that those men were capable of commanding one or two levels above their assigned rank.²⁹² Seeckt and his predecessors also found innovative ways to train his small army in mechanized and armored tactics by using modified cars as “dummy tanks” and by sending personnel to train in Russia, despite restrictions put in place by the Versailles Treaty that forbade such activities.²⁹³

Thus, when Hitler reintroduced conscription and reserve service in the latter half of the 1930s, the German army was able to maintain the high quality of its forces despite the influx of hundreds of thousands of untrained men into its ranks. It was able to do so by putting those long-service professionals trained in the 1920s and early 30s in charge of new conscripts and reservists.²⁹⁴ And it also generally kept more demanding jobs, such as those in the Panzer Divisions, in the hands of professionals.

²⁹⁰ Ibid. 3.

²⁹¹ Horne, *To Lose a Battle*, 88.

²⁹² Ibid.; In his memoirs, Colonel Hans von Luck recalled how when he applied for a position in the army in the 1920s there were 1,000 or more applicants for just 140 positions (Von Luck, *Panzer Commander*, 12).

²⁹³ Ibid., 13-14; Guderian, *Panzer Leader*, 23.

²⁹⁴ Von Luck, *Panzer Commander*, 20; Messerschmidt, “German Military Effectiveness between 1919 and 1939,” in *Military Effectiveness Volume 2*, 245.

Heinz Guderian, who helped oversee the development of German armored forces in the 1930s, wanted to keep the Panzer Divisions full of professional soldiers for two reasons. First, he wanted those divisions to be ready “to take the field without having to recall reserves on a large scale, or resort to untrained recruits.”²⁹⁵ Delays waiting for reservists could give Germany’s larger French or Soviet adversaries an ability to strike the first critical blows in a war. Additionally, Guderian believed that mastering Panzer tactics required long-service professionals because tanks and their associated equipment was, in his words, “expensive and rather complicated” and required extensive technical training and experience.²⁹⁶

Germany’s ability to field a high skilled army in 1939 and 1940 helped it achieve decisive tactical victories against Poland and France. And because those campaigns came to such a rapid conclusion, Germany was able to preserve manpower and limit its use of unskilled reservists or new conscripts in key roles.²⁹⁷

But the Germans lost these advantages when Hitler decided to invade the Soviet Union in June 1941. Securing such a massive amount of territory required Germany to make greater use of its entire armed forces. And the massive casualties that the Germans suffered in the failed invasion and subsequent operations killed or wounded many of its best and brightest soldiers and officers, eventually even forcing it to rely on children, elderly, the infirm, and slave labor to fight. Allied offensives in

²⁹⁵ Guderian, *Achtung-Panzer*, 232.

²⁹⁶ *Ibid.*, 236.

²⁹⁷ Kennedy, *The Rise and Fall of Great Powers*, 307-10.

North Africa, Italy, and France between 1942 and 1944 further degraded the German's qualitative advantages.

During this time, the Allies slowly improved the technical and tactical capabilities of their armies through battlefield experience and a massive infusion of financial and material support from the United States. The British, for instance, rebuilt and improved their army as Hitler's attention turned to the Soviet Union in mid-1941. And the Soviets traded space for time to improve its military. The United States, meanwhile, used its geographic advantages to retrain and rebuild its army prior to deployment to North Africa and Europe. In short, the failure to develop effective reservists during the interwar years did not doom the Allies because they—except for France—had the time and resources to recover. And they had the time and resources because the Germans and the Japanese posed an existential threat to the Allies, enabling them to generate the will to mobilize an unprecedented amount of personnel, material, and capital to destroy the Axis.

Section 3: The Contemporary Reserve Dilemma

A combination of factors—manpower and budgetary shortfalls, training constraints, and the rising technical and tactical demands of soldiering and officership—eroded the readiness and combat effectiveness of reservists during the interwar years and the opening years of WWII. Paradoxically, those same factors deepened armies' dependency on reservists, as active duty units became more expensive and as the likelihood of heavy battlefield attrition increased. These trends persisted over the past eighty years, forcing armies to become even more dependent on reservists—all while the qualitative gap separating the active soldier

from the reservist continued to widen. The risks associated with this dependency, in turn, forced military leaders to make difficult—and at times risky—choices as to how best to structure, resource, and employ their reservists.

This situation arose for several reasons. Following WWII, standing armies shrunk as states curtailed or abandoned conscription—due in part to political pressures—and as the cost of the average soldier and all his/her associated equipment rose exponentially. To fill the resulting gap between mission requirements and personnel, states called on reservists, as they had in the past. However, armies generally lacked the ability to provide their reservists with the necessary time and resources to keep up with the rising technical and tactical complexities of modern warfare. Making matters worse, active duty units faced the threat of—or experienced—rapid attrition due to the increasing lethality of modern weaponry.²⁹⁸ Consequently, many states were unable to count on reservists having had substantial periods of training before deployment.²⁹⁹ Nor could they presume that reservists had developed and retained proficiencies in their military occupations despite the fact that the time allotted for training—about 30 days a year or less—was the same as in the late 19th century. In short, 19th century reserve models, which already proved somewhat untenable during the world wars, risked becoming totally inadequate in the post-WWII era. After World War II, states struggled to understand and respond to these developments.

²⁹⁸ Best example of this is the IDF in the 1973 Yom Kippur War, as will be explored in chapter 4. The U.S. Army also worried about this issue, as discussed in chapter 3.

²⁹⁹ This issue is explored in full in chapter 4 and chapter 5.

Since 1945, technological developments have increased the lethality, range, and depth of the zone of battle. As Tables 1.8 and 1.9 show, armies fielded longer range weapons systems with a higher rate of fire over the past half-century while greatly increasing the number of systems mid and junior-ranking leaders had to manage. After WWII, riflemen, for instance, started carrying new assault rifles like the M-16 and AK-47 that could fire three round bursts or automatically, giving the average rifleman far more firepower. Additionally, armies faced a growing threat from the air, as helicopters became standard weapons systems in the 1960s, and newer generation aircraft and ground systems entered battle armed with precision-guided munitions (PGMs) and increasingly accurate fire control computers.

Militaries had experimented with precision guidance capabilities in the early 20th century by using radio controllers. But the impact of such technology was relatively minimal on ground forces until the Cold War, which witnessed the development of fire control computers, laser and infrared guidance technologies, and GPS. During WWII, tanks and other ground systems often had to rely on manual calculations and optics for magnification. For these reasons, tanks typically could engage targets effectively at ranges up to one to two kilometers.³⁰⁰ But by the 1970s, tanks could engage targets out to four to five kilometers with the assistance of laser range designators and gun stabilizers.³⁰¹ Meanwhile, GPS—introduced by the US in

³⁰⁰ See discussion on improve targeting capabilities of tanks today compared to WWII in Bruce Gudmundsson, *On Armor* (Westport: Praeger, 2004), 158, 166-67. Also see U.S. Training and Doctrine Command's 2005 *World Wide Equipment Guide* (WEG), 4-15.

³⁰¹ See T-90 MBT capabilities listed in the U.S. Army, *World Wide Equipment Guide*, 4-32; See integration of range finders and stability increase in tanks introduced between the 1960s and 1980s in the *World Wide Equipment Guide*, 4-10 to 4-32.

the late 1970s—and the Russian equivalent GLOSNASS (introduced in the 1980s) enabled the development of munitions that could strike targets with a high degree of accuracy by using satellites and onboard computers to navigate to specific geographic coordinates.³⁰² What is more, GPS-guided munitions work in all weather conditions, unlike laser-guided munitions that can be disrupted by clouds, smoke, or fog.³⁰³

Table 1.8: The Increasing Depth, Complexity, and Intensity of the Fire Swept Zone: 1914 to 1991			
	WWI	WWII	1991 Gulf War
Maximum Frontage an Infantry Battalion could Cover (organized in line)	~3,100m	~4,600m	~8,000m
Mission Essential Combat Equipment for an Infantry Company	5 (Rifle, bayonet, light machine guns, crew-served machine guns, rifle grenade)	6 (rifles, light MGs, crew-served machine guns, grenade launcher, mortars, anti-tank weapons)	6 (rifles, light MGs, crew-served machine guns, grenade launcher, mortars, anti-tank weapons)
Max Effective Firing Range of Rifles or Muskets (area target)	>549m	460m	800m
Rifle /Musket Rounds Per Minute (RPM)	10 to 15 RPM	16 to 24 RPM	45 to 90 RPM
Effective Firing Range of Supporting Towed Cannons/Howitzers (Division-level and below)	~8,500m - ~11,800 m	~11,100 to ~14,950m	30,000m
Max Effective Firing Range of Main Battle Tanks Supporting Infantry	N/A	1,000m	3,000m
Number of Maneuverable Sub-Units in an Infantry Battalion	12 -24	68	73
Number and Types of Air Threats	1 – Fixed Wing Aircraft	1 – Fixed-Wing Aircraft	3 – Fixed Wing Aircraft, Attack

³⁰² Saunder, *A Short History of GPS*, U.S. Air Force, <https://www.schriever.af.mil/News/Article-Display/Article/734934/a-short-history-of-gps-development/> (accessed 02 October 2019); for example of high degree of accuracy of modern missiles see CSIS Missile Defense Project profile of the Iskander Missile at <https://missilethreat.csis.org/missile/ss-26-2/> (accessed 23 April 2020).

³⁰³ Saunder, “A Short History of GPS,” <https://www.schriever.af.mil/News/Article-Display/Article/734934/a-short-history-of-gps-development/> (accessed 02 October 2019).

			Helicopters, Guided Missiles
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The introduction of PGMs was accompanied by a rapid improvement in command, control, and communications (C3) and intelligence, surveillance, and reconnaissance (ISR) technologies. These technological developments, which benefited from and reciprocally helped drive the computer revolution of the latter half of the 20th century, provided armed forces with enhanced battlefield awareness that

³⁰⁴ I used a U.S. M1 Garand rifle for this data, as provided in U.S. Army, *FM 23-5: U.S. Rifle - Caliber .30 M1* (Washington, DC: Government Printing Office, 1965), 3. Information on artillery ranges comes from Boyd Dastrup, *The King of Battle: A Branch History of the U.S. Army's Field Artillery* (Fort Monroe, VA: U.S. Army Training and Doctrine Command, 1992), 203-226, 237. For information on the range of tanks at the end of WWII see Gudmundsson, *On Armor*, 165. Example is a U.S. infantry battalion in 1942 with three rifle companies and a heavy weapons company U.S. War Department, *FM 7-40: Infantry Field Manual: Rifle Regiment* (Washington, DC: Government Printing Office, 1942), 3 and 164. The three rifle companies divided into three rifle platoons and one anti-tank platoon (two section each with two squads). The heavy weapons company had two maneuverable elements: two MG platoons (also had an 81mm mortar platoon, which is not a maneuver element (fires)), as reported in War Department, *FM 7-20: Infantry Field Manual: Rifle Battalion* (Washington, DC: Government Printing Office, 1942), 1-2, 32. The rifle platoon divided into three squads, *FM 7-10 Infantry Field Manual, Rifle Company, Rifle Regiment* (Washington, DC: Government Printing Office, 1942), 1. The squads could, in some circumstances, break into two teams: an automatic rifle team and a team of riflemen, Department, *FM 7-10: Infantry Field Manual: Rifle Company, Rifle Regiment*, 130. Longer range listed is for the French-made and U.S.-adapted 15mm Schneider howitzer—a division-level asset—that had a range of around 13,000 yards, as reported Mark Henry and Mike Chappell. *The US Army in World War II: Northwest Europe* (Oxford: Osprey Publishing, 2012), 40. U.S. M16A2 rifle could fire effectively at area targets at distances up to 800m, according to U.S. Army, U.S. Department of the Army. *Operating Manual 9-1005-319-10: M-16 and M-4 Rifle* (Washington, DC: Government Printing Office, 2010). The U.S. M198 howitzer could fire around 30km in the mid-1990s, according to U.S. Government Accountability Office. *ARMY AND MARINE CORPS M198 HOWITZER: Maintenance Problems Are Not Severe Enough to Accelerate Replacement System* (Washington, DC: Government Printing Office, 1995), 2. . Each rifle company has three rifle platoons and an anti-armor section, U.S. Army, *FM 7-10, The Infantry Rifle Company*, 1-10; Rifle platoon contained three rifle squads that divide into two fire teams and two machine gun teams, per U.S. Army, *FM 7-8, Infantry Rifle Platoon and Squad* (Washington, DC: Government Printing Office, 1992), Appendix A; A Western main battle tank in the late 1980s and early 1990s could effectively fire a round 3,000 meters, according to U.S. Training and Doctrine Command, *World Wide Equipment Guide: Volume 1: Ground Systems*, 5-7.

improved and accelerated the target identification and acquisition process.³⁰⁵ For instance, advances in ground radar systems in the late 1960s and early 1970s provided armies with the means to detect the movement of tanks and infantrymen kilometers behind the front—even when those movements were concealed behind dense foliage.³⁰⁶ Improvements to data collection and transfer technologies in the 1970s and 80s enabled rapid collection, processing, and dissemination of imagery and signals intelligence gathered by aircraft and satellites in space.³⁰⁷ What this meant was that armies could quickly locate and acquire targets across and beyond an active battlefield and strike those targets with highly accurate and long-range munitions.

In this new technological context, armies had to increase their dispersion, mobility, armored protection, and tempo of operations to avoid detection and destruction. As Table 1.8 and 1.9 show, the frontage covered by an infantry battalion nearly doubled between WWII and the 1991 Persian Gulf War while the number of vehicles and weapons assigned to a battalion expanded by a factor of three or four. This increased dispersion was made possible by two technological factors. First, weapons increased in range, as discussed above, meaning a battalion commander could spread out his subordinate companies more, knowing that neighboring

³⁰⁵ The Russians refer to this as the Recon-Fires Complex. For more see, Lester Grau, Lester and Charles K. Bartles. *The Russian Reconnaissance Complex Comes of Age* (Ft. Leavenworth: Foreign Military Studies Office, 2018).

³⁰⁶ OSD, “Fire Support,” http://www.gulflink.osd.mil/irfna/irfna_refs/n28en023/firespt.htm (accessed 05 May 2016). For a short history of ground penetrating radars, Thomas Bryant, Gerald Morse, Leslie Novak, and Henry, “Tactical Radars for Ground Surveillance,” *Lincoln Laboratory Journal* 12, no. 2 (2000).

³⁰⁷ See National Reconnaissance Office (NRO) histories of the Corona, Gambit, and Hexagon programs at <http://www.nro.gov/history/csnr/corona/index.html> and <http://www.nro.gov/history/csnr/gambhex/index.html> (accessed 28 August 2016).

companies had weapons with the range to support their sister companies at wider intervals than was possible during WWII. Second, armies mechanized and motorized much of their infantry and support systems during the Cold War. This meant that infantry had the necessary transportation capabilities to disperse and concentrate rapidly.

Table 1.9: Weapons Densities in Select Battalions (per km of front) ³⁰⁸				
	Tanks	Anti-Tank Weapons	Machine Guns*	APCs and/or IFVs
1944 German Battalion	5 to 7	8 to 10	12 to 15	0
NATO Battalion (1987)	12 to 17	30 to 40	50 to 75	50 to 60
*Excludes light machine guns/squad automatic weapons				

Mass mechanization of infantry began in the Soviet Union. In the 1960s, the Soviet Union introduced the BMP-1 infantry fighting vehicle (IFV), while the United States introduced the M-113 armored personnel carrier (APC).³⁰⁹ These tracked or wheeled armored vehicles provided armies with the means to transport team to squad-sized infantry elements into battle, while providing them with direct fire support and enhanced protection, compared to the unarmored trucks of WWI and WWII that generally dropped soldiers off near engagement areas and quickly moved to the rear.³¹⁰

³⁰⁸ CIA, “The Cutting Edge: Soviet Mechanized Infantry in Combined Arms Operations,” August 1987, 2, https://www.cia.gov/readingroom/docs/DOC_0000500655.pdf (accessed 23 March 2021).

³⁰⁹ Ingo Trauschweizer, *The Cold War U.S. Army: Building Deterrence for Limited War* (Lawrence: University of Kansas Press, 2008), 8-9.

³¹⁰ Ibid., 9.

By the late 1970s, the Soviet armed forces had fully embraced these technologies in an effort to improve their ability to breach NATO anti-tank defenses.³¹¹ Consequently, by the mid-1980s, its two main types of maneuver divisions—tank and motorized rifle—all integrated either tanks, IFVs, or APCs to transport infantry and supplies.³¹² The United States followed similar trends in the 1970s and early 1980s, as it expanded its use of the M-113 and developed the M2 Bradley IFV, as will be discussed in chapter 3. Around the same time, the Chinese fielded their own APC—the YW 531A—while the West Germans developed the Marder IFV. Others followed later with their own models, like the British Warrior IFV (introduced in 1988).³¹³

Absorbing these new technologies and tactical concepts required armies to raise their technical training standards. Soldiers, for instance, needed to understand how to operate and maintain the increasingly advanced equipment assigned to them. And they needed to be able to think and act more independently as combat formations continued to disperse to avoid detection or destruction. Thus, the U.S. Army, as will be discussed in more detail in later chapters, revolutionized its recruitment and training practices in the 1970s and 80s to attract, develop, and retain high-skilled, volunteer soldiers capable of mastering the intricacies of contemporary combat tactics

³¹¹ CIA, “The Cutting Edge: Soviet Mechanized Infantry in Combined Arms Operations,” 2.

³¹² U.S. Army, *Soviet Army Operations* (Washington, DC: GPO, 1978), 2-1; CIA, *Flexibility in Soviet Offensive Concepts*, July 1975, <https://www.cia.gov/readingroom/docs/CIA-RDP86T00608R000700190003-3.pdf> (accessed 23 March 2021).

³¹³ U.S. Army, *World-wide Equipment Guide 2011* (Washington, DC: GPO, 2011), 3-26, 3-37, 3-39.

and technologies. This revolution, moreover, extended across all three components of the army: active, reserve, and National Guard.

Around the same time, the Soviet Union looked to improve the quality of its personnel, as it came to believe that conventional war was much more likely once NATO revealed its Flexible Response doctrine in the 1960s.³¹⁴ Similar trends unfolded outside of Europe. China, for instance, initiated a program to modernize and improve the quality of its armed forces following the poor performance of its army in a conflict with Vietnam in 1979.

Improving personnel and equipment standards raised overhead costs. Units that trained more frequently and sought to develop and retain higher skilled soldiers had to expend more funds and resources on recruitment, training, and retention. Equipment itself became more expensive as well. New armored vehicles introduced between the early 1960s and mid-1980s incorporated sophisticated—and expensive—composite and reactive armor to counter increasingly lethal anti-tank munitions.³¹⁵ Communications and navigational systems added to armored vehicles around the same time raised costs even further.³¹⁶ And the increased mechanization of the

³¹⁴ See chapter 3 for more details on Flexible Response; CIA, *Readiness of Soviet Forces in Central Europe*, September 1987, v, <https://www.cia.gov/readingroom/docs/1987-09-01.pdf> (accessed 23 March 2021).

³¹⁵ CIA, *Flexibility in Soviet Offensive Concepts*, 17.

³¹⁶ Digitized command and control systems that emerged in the late twentieth century added even more costs to these vehicles. For instance, the U.S. Army's Force XXI Battle Command Brigade and Below System (FBCB2) that entered service aboard army vehicles in the late 1990s added about another \$20,000 per vehicle cost (eventually installed on 120,000 U.S. Army vehicles). See Samuels, "Connecting the Battlespace," *Armor and Mobility*, May 2010, 4, http://www.tacticaldefensemedia.com/pdf/am/2010_may.pdf (accessed 19 August 2016). For more on tank armor advancements, see USMC Intelligence Activity, MCIA, *Soviet/Russian Army and Artillery Design and Practices*, 101,

battlefield added more and more vehicles to unit inventories—all of which would have generated even more costs in areas such as fuel consumption and maintenance. The Soviet Union, for instance, doubled its inventory of IFVs, tanks, self-propelled howitzers, and attack helicopters between 1966 and 1986 as it sought to maintain an edge over NATO in ground forces.³¹⁷ Similar developments occurred in the armies of the Middle East during this period, as examined in chapter 5.

The overhead costs of armed forces also rose sharply in the latter half of the 20th century because states largely abandoned or curtailed conscription, focusing instead on recruiting more expensive volunteers. This shift in recruitment practices reflected war wariness and anti-militarist attitudes throughout Europe and the conclusion by many military professionals that conscripts lacked the time necessary to understand and master the complex technologies and tactics of post-WWII warfare.³¹⁸ Thus, Great Britain phased out conscription between 1957 and 1963.³¹⁹ A decade later, the United States abandoned conscription, leading to a rapid decline in the size of the active-duty army that accelerated amid budget cuts following the Cold War in the 1990s. More recently, Russia moved to professionalize its armed forces, as it reduced its dependency on conscripts in favor of professionals following

<https://ntrl.ntis.gov/NTRL/dashboard/searchResults/titleDetail/PB96134846.xhtml> (accessed 12 April 2020).

³¹⁶ CIA, *Readiness of Soviet Forces in Central Europe*, 1-2.

³¹⁷ Ibid.

³¹⁸ Beatrice Heuser, *The Evolution of Strategy* (New York: Cambridge University Press, 2011), 503.

³¹⁹ BBC, “The Last Man to Do National Service,” *BBC News*, 01 June 2015, <http://www.bbc.com/news/magazine-32929829> (accessed 27 August 2017).

the Cold War.³²⁰ In fact, by 2014, the number of contract soldiers in the Russian army exceeded the number of conscripts for the first time.³²¹ And China has started to focus more on recruiting high-skilled soldiers. One of the ways it has done this is by recruiting volunteers, while reducing its dependency on conscripts, who, since 1999, are obligated to serve two years, compared to three years before.³²²

Volunteers and those with technical backgrounds, however, need some incentive to join the military, such as pay for college, promises of a generous pension, or training in technical fields that could translate to a career in the civilian sector. And providing those incentives drove up personnel costs. Take the case of the U.S. Army. In 2016 dollars a new, unmarried private in the U.S. Army in 1949 earned around \$737 a month in pay and \$442 for living expenses (\$1,179 total per month).³²³ In 2016, that same private earned about twice as much, taking in \$1,567 a month in pay and \$532 for living expenses (\$2,099 total per month).³²⁴ Similarly, Russia has

³²⁰ DIA, *Russia Military Power* (Washington, DC: GPO, 2017), 11.

³²¹ *IISS, Military Balance 2017*, 186.

³²² *IISS Military Balance 1985*, 111; Dennis Blasko, *The Chinese Army Today: Tradition and Transformation for the 21st Century* (New York: Routledge, second edition, 2012), 4; Richard Weitz, *The Reserve Policies Of Nations: A Comparative Analysis* (Carlisle: Strategic Studies Institute, 2014), 81.

³²³ Pay charts from 1949 to present are located at the U.S. military's Defense Finance and Accounting Service's (DFAS) webpage available at <http://www.dfas.mil/militarymembers/payentitlements/military-pay-charts.html> (accessed 30 October 2016).

³²⁴ DFAS, "Pay Charts 1949-2016," <https://www.dfas.mil/militarymembers/payentitlements/Pay-Tables/PayTableArchives.html> (accessed 01 March 2017).

seen a rise in personnel costs as it attempted to attract and retain more “contract” soldiers, who earn higher pay than conscripts.³²⁵

	1970	1980	1990	2000	2010	2016
Australia	45,000	32,010	30,300	24,150	27,461	29,000
Canada	35,350	12,675	23,500	20,900	34,775	34,800
China	2,450,000	3,600,000	2,300,000	1,700,000	1,600,000	1,600,000
France	328,000	321,320	288,550	169,300	134,000	116,500
Egypt	250,000	320,000	320,000	320,000	340,000	310,000
Ethiopia	41,000	225,000	430,000	350,000	135,000	135,000
United Kingdom	190,000	167,250	152,900	113,950	100,290	88,300
West Germany/ Germany	326,000	335,200	308,000	221,100	116,739	60,450
India	800,000	944,000	1,100,000	1,100,000	1,129,900	1,159,900
Indonesia	275,000	181,000	215,000	230,000	233,000	300,400
Iran	135,000	150,000	305,000	325,000	350,000	350,000
Israel	61,500	135,000	141,000	130,000	133,000	133,000
Italy	295,000	253,000	260,000	153,000	108,300	102,200
Japan	179,000	155,000	156,200	148,500	138,400	151,000
North Korea	370,000	600,000	1,000,000	950,000	950,000	1,020,000
Pakistan	300,000	408,000	500,000	550,000	550,000	550,000
Soviet Union /Russia	2,000,000	1,825,000	1,473,000	348,000	360,000	240,000
South Korea	570,000	520,000	650,000	560,000	560,000	495,000
Taiwan	387,500	310,000	270,000	240,000	200,000	131,000
Turkey	390,000	470,000	525,000	495,000	402,000	402,000
United States ³²⁷	1,322,548	776,536	765,000	479,026	561,979	474,472

³²⁵ Lester Grau and Charles Bartles, *The Russian Way of War* (Ft. Leavenworth: Foreign Military Studies Office, 2016), 4, 8.

³²⁶ *Military Balance 1970*, pp. 7, 22, 24, 26-27, 29, 32, 39-40, 45, 48, 57, 61-64, 65, 67; *IJSS Military Balance 1980*, pp. 10, 21, 23, 25-26, 31, 41-43, 52, 62, 65, 67-71, 73; *IJSS Military Balance 1980*, pp. 10, 21, 23, 25-26, 31, 41-43, 52, 62, 65, 67-71, 73. *IJSS Military Balance 1990*, pp. 34, 60, 63, 66, 71, 81, 83, 102-104, 106, 131, 149, 156, 160, 163, 164, 166, 168, 173, 177; *IJSS Military Balance 2000*, pp. 54, 58, 61, 67, 78, 80, 120, 137, 139, 142, 173, 191, 194, 198, 200, 202-203, 214, 269; *IJSS Military Balance 2010*, pp. 28, 129, 134, 141, 165, 168, 222, 248, 251, 307, 359, 367, 394, 399, 405, 408, 411, 413; *IJSS Military Balance 2016*, pp. 35, 60, 95, 100, 147, 189, 232, 240, 250, 255-56, 260, 264, 267, 279, 290, 324, 333, 327, 445.

³²⁷ Data for US Army From: U.S. Department of Defense, *Selected Manpower Statistics, Fiscal Year 1982* (Washington, DC: Government Printing Office, 1982), 199-200; U.S. Army Historical Series at <https://history.army.mil/html/bookshelves/collect/dahsum.html> (accessed 12 April 2020).

The rising costs of modern armies and the political pressures to reduce the military burden on society has caused many states to slash the size of their armies over the past half-century. And as army end strength declined, states turned to reservists to fill mission requirements. During the late Cold War, many NATO countries, like the UK, the Netherlands, West Germany, and Norway, increased their use of reservists in frontline roles as the size of their active-duty forces declined.³²⁸ While, more recently, in 2010, Sweden abandoned conscription—due in part to its unpopularity—and increased reliance on volunteers and part-time reservists.³²⁹ Similarly, Poland, which gave up conscription in 2009, attempted to boost reserve readiness in recent years due to the rising threat of a resurgent Russia.³³⁰ To do so, it mandated that reservists intensify peacetime training standards while increasing integration with the active duty army.³³¹ Meanwhile, in 2018, the South Korean government announced plans to cut the size of its active-duty force by reducing conscript time from 21 months to 18 due in part to societal demands to reduce the

³²⁸ CIA, *Soviet Strategy and Capabilities for Multi-Theater War*, June 1985, p. 17, <https://www.cia.gov/readingroom/document/cia-rdp87t00495r000700760002-9> (accessed 23 March 2021); for a detailed analysis of the German reserves in the late Cold War, see Jeannine De Soet, *Defence Reviews in Times of Economic Turmoil: British and German Reserve Forces in Transformation (2010-2015/1970-1979)* (Ph.D. dissertation, Kings College, 2019).

³²⁹ Carl Karlsson, “The Swedish Military Can’t Retain Enough Troops. Here’s Why,” *Task and Purpose*, 04 April 2018, <https://taskandpurpose.com/sweden-military-retention> (accessed 07 February 2018).

³³⁰ Staff Writers, “Polish Army to Train 36 Thousand Reserve Troops,” *Defense 24*, 12 February 2016, <https://www.defence24.com/polish-army-to-train-36-thousand-reserve-troops> (accessed 07 February 2018); Staff Writers, “Compulsory Military Service Will Not Be Reintroduced In Poland,” *Defense 24*, 27 February 2015, <https://www.defence24.com/compulsory-military-service-will-not-be-reintroduced-in-poland> (accessed 01 April 2021).

³³¹ Staff Writers, “Polish Army to Train 36 Thousand Reserve Troops,” *Defense 24*, 12 February 2016, <https://www.defence24.com/polish-army-to-train-36-thousand-reserve-troops> (accessed 07 February 2018);

burden of military service on the country's youth.³³² To compensate for an anticipated decline in the size of the conscript force, the South Korean army announced plans to boost reserve readiness through improved training and equipment standards.³³³

Battlefield requirements also forced some states to deepen their reliance on reservists. The United States, for instance, made extensive use of its national guard and reserve during protracted wars in Iraq and Afghanistan that exhausted the active component of its army.³³⁴ And the Soviets, had to draw on reserves during its long war in Afghanistan in the 1980s. Likewise, the Israelis had to deploy reservists for lengthy tours in the Palestinian territories during the First and Second Intifadas, which overtaxed its small active duty army.³³⁵ And more recently, the Syrian armed forces have had to recall reservists and establish militias to support their ongoing attempts to suppress the Syrian revolution.³³⁶

Relying on reservists is risky, as they often struggled to master the intricacies of modern combat due to a host of constraints, leading to higher casualties and

³³² Staff Writers, "South Korea to reduce length of mandatory military service," *Channel News Asia*, 28 July 2018, www.channelnewsasia.com/news/asia/south-korea-military-service-reduce-length-army-10569914 (accessed 15 September 2019); Staff Writers, "S. Korea's Army to create reserve forces command," *Korean Herald*, 06 April 2018, <http://www.koreaherald.com/view.php?ud=20180406000215> (accessed 15 September 2019).

³³³ Ibid.; Also, Taiwan, as of 2018, may be considering similar reforms, as outlined in Ian Easton, Mark Stokes, Cortez Cooper, and Arthur Chan. *Transformation of Taiwan's Reserve Forces* (Santa Monica: The Rand Corporation, 2017).

³³⁴ See chapter 3 for more details.

³³⁵ See chapter 5 for more details.

³³⁶ Staff Writers, "Syrian army ends calls for reserve military personnel: newspaper," *Xinhua*, 29 October 2018, http://www.xinhuanet.com/english/2018-10/29/c_137566893.htm (accessed 27 August 2019).

tactical setbacks. These setbacks can also lead to strategic defeat, as the Israelis learned during the 2006 Lebanon War.³³⁷ What is more, deploying citizen-soldiers away from their civilian lives for many months or more can generate a political backlash, as the United States experienced during the height of the second Iraq War and as the Israelis experienced during war in Lebanon in the 1980s.³³⁸ And some armies, like the Syrian armed forces, have been unable to convince many reservists to report to duty when activated for unpopular or dangerous wars.³³⁹ The tactical competence and motivations of reservists, therefore, can prove to be an issue of great strategic and political import.

Reservists have struggled to keep up with the changing character of warfare since WWII largely because they had insufficient time to train. Most reservists train 30 days or less a year. That amount of training may have been sufficient in the context of the 19th and early 20th centuries when a soldier mainly needed to be able to maintain and fire his rifle as part of a battalion-sized tactical formation. However, since the interwar years, that reservist needed to be able to fight independently and assume leadership positions in a squad or team-level formation, while being able to fire and maintain their weapons and new support technologies, such as field radios, vehicles, various C3 and battlefield management systems, and, more recently, unmanned air and ground systems. Consequently, in the post WWII period, armies

³³⁷ See chapter 5 for more details.

³³⁸ See chapter 2 and 3 for details on the U.S. case and chapter 5 for the Israelis.

³³⁹ Staff Writers, “Strained Syrian Army Calls up Reserves; Some Flee,” 04 September 2012, *Reuters*, <https://www.reuters.com/article/us-syria-crisis-army-deserters/strained-syrian-army-calls-up-reserves-some-flee-idUSBRE8830CH20120904> (accessed 01 September 2019).

could not easily substitute a reservist for a professional soldier or a conscript. In other words, the situation that existed prior to the mid-19th century in which reservists were poor substitutes re-emerged.

This situation posed a particular challenge to the United States and Israel. For unique geopolitical and cultural reasons, both countries were—and still are—highly dependent on army reservists for national defense. And both employed different types of reserve forces: The United States an all-volunteer reserve composed of soldiers who may or may not have had active duty experience previously and Israel a Prussian-style reserve of discharged conscripts. Yet, despite these differences and very different strategic, political, and socio-economic contexts, each country faced similar challenges with reserve readiness over the past half century. How and why each country responded to those challenges is explored in depth in the four chapters that follow.

Chapter 2: The United States Confronts the Reserve Dilemma

*“...it takes a long while to teach the average untrained man how to shoot, to ride, to march, to take care of himself in the open, to be alert, resourceful, cool, daring, and resolute, to obey quickly, as well as to be willing, and to fit himself, to act on his own responsibility.”*³⁴⁰

Theodore Roosevelt

The United States had to confront the reserve dilemma during the world wars and the Korean War when it expanded its tiny peacetime active duty army by activating and deploying its primary combat reserve: The National Guard (NG). The active duty U.S. army had long disparaged and distrusted the NG, a state militia force led for most of its history by amateur officers and manned by soldiers who had little to no military training and experience. But political pressures from guard supporters in Congress, American society’s fears of a large standing army, and successful lobbying efforts by NG officers and their political allies forced army leaders and defense policymakers to accept a force largely composed of untrained civilians as the combat reserve for the U.S. Army—not a European-style reserve of discharged conscripts as many of them preferred. Thus, in 1917, 1942, and 1950 the citizen-soldiers of the NG went to war; and, despite significant struggles during mobilization, and after bruising combat experience, they succeeded in closely approximating the capabilities of their active duty counterparts.

The effectiveness of the NG in distant conflicts abroad were primarily the product of the fact that the army was able to spend over a year reorganizing and

³⁴⁰ Theodore Roosevelt, *An Autobiography by Theodore Roosevelt* (New York: Astounding Stories, 2017 [1923]), 164.

retraining guard divisions before deployment. During that time, the army also infused the divisions with veteran leadership in key command and staff positions, while replacing many soldiers and junior officers with conscripts and wartime volunteers. And it was able to do so because its geographic separation from the battlefield afforded the United States the luxury of time and space to undertake such a lengthy pre-deployment training and reorganization period—a luxury that the United States lost when it became a global superpower after WWII, as detailed in the next chapter. In short, the U.S. Army resolved the reserve dilemma during the world wars and, to a lesser extent, in Korea by essentially transforming NG divisions into active army units prior to deployment. This chapter tells the story of how and why it was able to do so.

Section 1: The Birth of the National Guard

The NG traces its roots to the colonial and state militias established by English settlers who arrived in North America in the early seventeenth century. By 1755, every English colony had its own militia, although the structure and quality varied by location.³⁴¹ Following the Revolutionary War (1775-83), the United States maintained its commitment to the militia system through the Militia Act of 1792, which required all able-bodied white male citizens between ages 18 and 45 to join local militias, while providing their own “arms, munitions, other accouterments.”³⁴²

³⁴¹ U.S. Army Center of Military History, *American Military History, Volume 1*, 30-31; Doubler, *Civilian in War, Soldier in Peace*, 7.

³⁴² U.S. Army Center of Military History, *American Military History, Volume I*, 114.

In a crisis, the militias reinforced the small standing army of the United States—about 4,000 soldiers in 1800—and wartime volunteers.³⁴³

However, militiamen were generally poor substitutes for active soldiers due to infrequent training, poor leadership, and legal constraints. Most militias only drilled about one day a month or not at all under the leadership of officers who generally had little to no military experience or training.³⁴⁴

The federal government had little authority to force states to improve the quality of their militias, as governors and other local and state officials set militia personnel, training, and equipment standards.³⁴⁵ Governors could even refuse to allow their militias to participate in federal missions, as occurred during the War of 1812.³⁴⁶ Those militia personnel that did deploy in support of federal missions were only obligated to serve for three months per year, meaning they could return home in the middle of a war once they reached their service limits, as occurred during the Mexican American War (1846-48).³⁴⁷ The militias, therefore, were highly unreliable; and would remain so throughout the 19th century.

³⁴³ Hill, *The Minute Man in Peace & War*, 11; Kennedy, *The Rise and Fall of Great Powers*, 154; Millett, Maslowski, and Feis, *For the Common Defense*, 683.

³⁴⁴ Ibid., 3. Robert Wright, *Massachusetts Militia Roots: A Bibliographic Study*, 19 July 1986, 2, <http://www.history.army.mil/reference/mamil/Mamil.htm> (accessed 02 September 2016); Weigley, *The American Way of War*, 4, 11; Doubler, *Civilian in Peace, Soldier in War*, 69.

³⁴⁵ U.S. Army Center of Military History, *American Military History, Volume 1*, 115.

³⁴⁶ See case of the New England militia, as discussed in Millett, Maslowski, and Feis, *For the Common Defense*, 97-99.

³⁴⁷ U.S. Congress, “Acts of the Second Congress of the United States,” *The Library of Congress*, 264, <https://www.loc.gov/law/help/statutes-at-large/2nd-congress/c2.pdf> (accessed 19 October 2019).

Yet the inability of the United States to maintain a well-trained reserve had a negligible impact on U.S. national security during the 19th century. Protected from great power adversaries by two vast oceans, the United States had the luxury of being able to rely almost exclusively on its small standing army and the U.S. Navy to deter and respond to domestic and foreign threats.³⁴⁸ And during times of major crises, such as the Civil War, it could turn to wartime volunteers—not the militia—to reinforce the active army.³⁴⁹

Nevertheless, some U.S. defense policymakers and active officers attempted, but ultimately failed, to replace the militias with a better trained and more responsive force. Brevet Major-General Emory Upton led one such an effort in the mid-1870s.³⁵⁰ Upton, a leading intellectual in the U.S. Army and decorated Civil War veteran, viewed citizen-soldiers with disdain.³⁵¹ His views on the militia likely came from his time as a cadet at West Point, where many young officers learned to look down on citizen-soldiers for their lack of professionalism compared to active duty soldiers.³⁵² Later, following his service alongside militias in the Civil War, Upton would conclude that militiamen were “so destitute...of instruction and training

³⁴⁸ Brian Linn, *The Echo of Battle* (Cambridge: Harvard University Press, 2009), 13-16, 20-21.

³⁴⁹ James McPherson, *Battle Cry of Freedom: The Civil War Era* (New York: Oxford University Press, 2003), 318, 322.

³⁵⁰ Emory Upton, *The Armies of Asia and Europe* (London: Griffin & Co., 1878), 367-69.

³⁵¹ Stephen Ambrose, *Upton and the Army* (Baton Rouge: LSU Press, 1992), 16-17.

³⁵² Ambrose, *Upton and the Army*, 11; H.W. Halleck, *Elements of Military Art and Science* (New York: D. Appleton & Co., third edition, 1862), 406-07.

that...they did not merit the name of a military force.”³⁵³ But Upton’s recommendations were unable to gain traction in Congress, where the militias enjoyed widespread support from state representatives and senators.³⁵⁴

The Spanish-American War further exposed the limitations of the militia system. After the United States declared war on Spain on 25 April 1898, the U.S. Army had to quickly increase its strength, which was around 28,000 soldiers in 1898, to fight a war spanning two hemispheres.³⁵⁵ One way it did so was by convincing around 58,000 militiamen to volunteer for federal service, taking advantage of the spirit of volunteerism that swept across the United States following the sinking of the USS Maine in February 1898.³⁵⁶ And once on federal service, the army could deploy militiamen overseas and beyond their three-month service limit.

Ultimately, over 170,000 militiamen served on federal orders during the Spanish-American War.³⁵⁷ For the most part, they performed their jobs to the standards expected of them against a weak Spanish Army. What is more, the successful overseas deployment of the militia—in a volunteer status—boosted the confidence of the War Department and Congress in the viability of the militia as a combat reserve for domestic and expeditionary operations.³⁵⁸

³⁵³ Ambrose, *Upton and the Army*, 17.

³⁵⁴ Coffman, *The Regulars*, 4-5; Derthick, *The National Guard in Politics*, 2.

³⁵⁵ Doubler, *Civilian in Peace, Soldier in War*, 129.

³⁵⁶ Ibid., 129; U.S. Army Center of Military History, *American Military History, Volume I*, 349.

³⁵⁷ Hill, *The Minute Man in Peace and War*, 164.

³⁵⁸ Doubler, *Civilian in Peace, Soldier in War*, 142.

The Roosevelt Administration (1901-09) deepened the U.S. reliance on the militia after the war while advancing legislation to boost its readiness and accessibility. Roosevelt, a veteran of the Spanish-American War who had once earned a commission in the New York militia, wanted the militia to serve as “a reserve of instructed men big enough to fill up [the regular army] to full war strength...” at a period in which the United States was emerging as a global power—a development that increased the likelihood of the United States coming in conflict with the massive armies and navies of the great powers of Europe and a rising Japan.³⁵⁹ But, as his War Department conceded in 1901, the militia was “practically obsolete” and “never worked satisfactorily.”³⁶⁰ Reforms, therefore, were necessary.

Table 2.1: Size of U.S. Army – 1900 to 1920 ³⁶¹		
Year	Active Army	State Militia/National Guard
1900	84,513 (including federal volunteers)	~100,000
1905	60,183	111,057
1910	71,769	~118,926 (data from 1909)
1915	108,008	129,398
1920	204,292	56,106

To lead such an effort, Roosevelt turned to his Secretary of War, Elihu Root (1899-1904). Root initially advocated to replace the militia with a federally controlled reserve composed of discharged conscripts—the same type of organization adopted by most European armies in the latter half of the 19th century.³⁶² But he soon

³⁵⁹ Roosevelt, *An Autobiography by Theodore Roosevelt*, 161.

³⁶⁰ War Department, *Annual Report, 1901*, 34; Staff Writers, “Secretary Root on Work of the Army,” *The New York Times*, 01 December 1902, 3.

³⁶¹ U.S. War Department, *Annual Report, 1901*, 9; U.S. War Department, *Annual Report, 1905*, 1; U.S. War Department, *Annual Report, 1910*, 7; U.S. War Department, *Annual Report, 1910*, 23; Militia Bureau, *Annual Report 1921*, 6; Doubler, *Civilian in Peace, Soldier in War*, 146.

³⁶² Derthick, *The National Guard in Politics*, 24; Hill, *The Minute Man in Peace and War*, 172-73.

learned such a proposal was unrealistic. State governments and members of Congress would almost certainly have opposed attempts to replace or marginalize militiamen, as they had in response to Upton's proposals back in 1877.³⁶³ And—most importantly—the American public remained staunchly opposed to conscription.³⁶⁴ Root, therefore, had to maintain the militia in some form and work with its respective leaders, to include its allies in Congress and the militia's powerful lobbying wing—the National Guard Association (NGA).³⁶⁵

For the most part, Root succeeded in enlisting the support of militia leaders, including Ohio Representative Charles Dick, the Chairman of the Committee of the Militia.³⁶⁶ Dick, who was also a senior officer in the Ohio militia and the President of the NGA, concurred with Root's assessments that the Militia Act of 1792 was obsolete and that the militia needed to improve its training and personnel standards.³⁶⁷ Such reforms were necessary, in his view, because the militia had to be better prepared to help counter the threat of European powers using modern naval technology to attack the continental United States.³⁶⁸

³⁶³ Doubler, *Civilian in Peace, Soldier in War*, 141.

³⁶⁴ Millett, Maslowski, and Feis, *For the Common Defense*, 292-94; Charles Dick, "Our Second Line of Defense," *The Washington Post*, 06 July 1902, 22.

³⁶⁵ Derthick, *The National Guard in Politics*, 25-26.

³⁶⁶ *Ibid.*, 27.

³⁶⁷ Staff Writers, "New Law for Militia," *The Washington Post*, 22 March 1902, 11; Staff Writers, "Militia Bill Signed," *The Washington Post*, 22 January 1903, 4.

³⁶⁸ Charles Dick, "Our Second Line of Defense," 22.

With support from Secretary Root, Dick sponsored and passed a new militia act—better known as the Dick Act—in January 1903.³⁶⁹ The act improved militia readiness—which was officially renamed the National Guard (NG) in 1903—in two ways. First, it improved its accessibility by granting the President the authority to activate the guard for up to nine months a year, as opposed to the previous three-month limit.³⁷⁰ And guardsmen who refused to serve on federal orders faced court-martial.³⁷¹ That said, guard units were still blocked from serving outside the United States.

The second way the Dick Act improved NG readiness was by forcing it to adopt the same organizational, equipment, and disciplinary standards of the active duty army.³⁷² To help it do so, all guard units were required to train at least 24 days a year with five or more of those days in the field.³⁷³ Guard officers, meanwhile, could start attending U.S. Army schools to learn the latest tactics and administrative practices employed by the active army.³⁷⁴ The act also boosted federal funding for the guard to relieve states of some of the financial burdens of the expanded training requirements.³⁷⁵

³⁶⁹ Staff Writers, “Militia Bill Signed,” 4.

³⁷⁰ Derthick, *The National Guard in Politics*, 27; War Department, *Annual Report, 1901*, 27.

³⁷¹ Doubler, *Civilian in Peace, Soldier in War*, 144.

³⁷² Derthick, *The National Guard in Politics*, 27.

³⁷³ Parker, *The Militia Act of 1903*, 3-4.

³⁷⁴ Dick, “Our Second Line of Defense,” 22.

³⁷⁵ Doubler, *Civilian in Peace, Soldier in War*, 145.

The Dick Act faced pockets of opposition from the active duty army and the NG. Some worried whether the NG could be counted on in war because of their dual status as a state and federal force and because it legally could not deploy outside the United States.³⁷⁶ Several guard officers also worried their units would be dismantled to provide individual replacements for the active army.³⁷⁷ Such a move, they argued, would be counterproductive, as it would erode a key advantage of guard units: the cohesion units gained from years of training together.³⁷⁸

To address these concerns, Charles Dick worked with the War Department to pass new legislation in May 1908.³⁷⁹ The legislation, which faced no opposition in Congress, better defined the structure of the reserve component of the U.S. Army by dividing it into two organizations.³⁸⁰ The first was the Organized Militia (the NG), which would serve as the first line reserve to the U.S. Army in wartime. The second was the Reserve Militia that included all able-bodied males in the United States between the ages of 18 and 45 who could be called into service in wartime as a second-line reserve or to fill vacancies in the active army or NG.³⁸¹ Thus, guard units were less likely to be broken up if the active army could draw on the Reserve Militia to fill vacancies. And to alleviate concerns about the accessibility of the NG, the

³⁷⁶ Ibid., 151.

³⁷⁷ Millett, Maslowski, and Feis, *For the Common Defense*, 296.

³⁷⁸ Ibid.

³⁷⁹ Staff Writers, "The Militia Bill Becomes Law," 4.

³⁸⁰ Derthick, *The National Guard in Politics*, 42.

³⁸¹ Doubler, *Civilian in Peace, Soldier in War*, 144; Staff Writers, "Regulars and Militia to Form One Great Army," *The New York Times*, 28 June 1908, SM1.

1908 legislation granted the President the authority to place guardsmen on federal orders and deploy them overseas.³⁸²

The legislative victory was short-lived. Key members of the Taft Administration, which came to office in March 1909, opposed updates to the Dick Act. In 1912, Secretary of War Henry L. Stimson charged that revisions to the act were unconstitutional because they required state militias to serve abroad.³⁸³ And the U.S. Attorney General, George W. Wickersham agreed, effectively barring the NG from involuntary overseas deployments.³⁸⁴

With the NG sidelined, the War Department started planning to develop an alternative reserve force. These efforts culminated with the 1916 policy paper entitled *The Statement of a Proper Military Policy for the United States* that called for the expansion of the active army from 108,000 soldiers to 230,000 (including coastal defense).³⁸⁵ And to reinforce the army, the paper also called for an expansion of the reserve from 129,000 members to 379,000.³⁸⁶ To achieve this growth, the army planned to recruit soldiers on two-year contracts, after which they would enter the reserves and drill on a part-time basis for six years under the supervision of federal

³⁸² Derthick, *The National Guard in Politics*, 28.

³⁸³ Doubler, *Civilian in Peace, Soldier in War*, 154; U.S. Army War College, *Statement of a Proper Military Policy for the United States* (Washington, DC: Government Printing Office, 1916), 24-25.

³⁸⁴ Joseph Balkoski, *The Maryland National Guard: A History of Maryland's Military Force* (Glen Burnie: Toomey Press, 1997), 40.

³⁸⁵ War Department. *Statement of a Proper Military Policy for the United States*, 21.

³⁸⁶ *Ibid.*, 25.

officers.³⁸⁷ In other words, the War Department was aiming to establish a European-style reserve system, albeit with volunteers, rather than conscripts, much like Britain had done before WWI.

The War Department believed that this new reserve system—which it called the Continental Army—would significantly improve reserve readiness through enhanced training. The guard, the War Department calculated, needed 150 hours of training every month to meet the standards of a modern reservist—about ten times more than what a guard unit trained.³⁸⁸ The NG was almost certainly incapable of meeting those standards because doing so would have caused tremendous stress on guardsmen's civilian work and family lives, as they would have had to be away from home around 18 days a month.³⁸⁹ The Continental Army, on the other hand, could overcome that obstacle by ensuring all reservists first served on active duty for two or more years. In theory, the average soldier would retain his soldiering skills when discharged into the reserves, meaning that they could maintain their readiness by training far less than 150 hours a month.

The NG rejected the Continental Army Plan and took its case to Congress, which held hearings on the matter in early 1916. During the hearings, the guard found strong support in the House of Representatives, where Virginia Representative James Hay, the influential head the House Military Affairs Committee, mounted a

³⁸⁷ Doubler, *Civilian in Peace, Soldier in War*, 156; U.S. Army War College, *Statement of a Proper Military Policy of the United States*, 25.

³⁸⁸ Ibid., 24.

³⁸⁹ Assuming that 150 hours divided into 8-hour workdays.

vigorous defense of the NG.³⁹⁰ Hay was concerned that the marginalization of the NG and growth of the active army would give the federal government too much power over states.³⁹¹ Other house members questioned whether the United States could afford an expanded active army and reserve.³⁹²

In early February 1916, as opposition mounted in Congress, President Woodrow Wilson withdrew his support for the Continental Army plan, possibly fearing a backlash from the states during an election year.³⁹³ Frustrated, Secretary of War Lindley Garrison resigned in protest.³⁹⁴ But before doing so, he wrote to Wilson, warning that relying on the NG was “a betrayal of the public trust...[as] the nation will be forced to depend on a military force for which it cannot recruit, it cannot name officers, it cannot train and over which it has no authority.”³⁹⁵

With the Continental Army Plan defeated, the War Department scrambled to come up with an alternative course of action. The result was the National Defense Act (NDA) of 1916, which re-affirmed the NG’s role as the first line reserve to a small, all-volunteer active army.³⁹⁶ To ensure the NG’s accessibility, the act

³⁹⁰ Derthick, *The National Guard in Politics*, 33-34.

³⁹¹ Doubler, *Civilian in Peace, Soldier in War*, 157.

³⁹² Staff Writers, “Outline Army Policy,” *The Washington Post*, 07 January 1916, 2.

³⁹³ Derthick, *The National Guard in Politics*, 36-38; Staff Writers, “Assistant Secretary Breckinridge Also Quits; Both Resignations Are Promptly Accepted,” *The Washington Post*, February 1916, 11; Arthur Link, *Wilson, Volume IV: Confusions and Crises, 1915-1916* (Princeton: Princeton University Press, 1964), 40-41.

³⁹⁴ Doubler, *Civilian in Peace, Soldier in War*, 157-58; Staff Writers, “Assistant Secretary Breckinridge Also Quits; Both Resignations Are Promptly Accepted,” 1.

³⁹⁵ Geoffrey Wawro, *Sons of Freedom: The Forgotten American Soldiers Who Defeated Germany in World War I* (New York: Basic Books, 2018), 69.

³⁹⁶ Millett, Maslowski, and Feis, *For the Common Defense*, 307.

mandated that guardsmen take federal and state oaths of enlistment that required them to deploy abroad in the event of a national emergency for an unlimited period.³⁹⁷

Guard training also doubled to 48 evening training sessions a year at home station—enabled by additional federal funds—and two weeks of annual summer training in the field (requirements remain the same today).³⁹⁸ States that did not comply with those requirements could have their federal funding revoked.³⁹⁹ Training standards were further enforced by the War Department, which gained the authority to screen guard officers for physical and mental fitness.⁴⁰⁰ In short, the NG survived, while becoming a more deployable and proficient force.

But the NG did not have time to absorb and adapt to these standards before being called out for its first federal deployment since the Spanish American War. In the summer of 1916, President Wilson activated 125,000 guardsmen to assist the active army with the campaign to capture or kill Pancho Villa along the U.S.-Mexico border.⁴⁰¹ However, the active army discovered that as many as 20 percent of guardsmen were ineligible for service due to a variety of physical or psychological ailments.⁴⁰² Some guardsmen also refused to serve, citing difficulties supporting their

³⁹⁷ Ibid.

³⁹⁸ Ibid.; Derthick, *The National Guard in Politics*, 33.

³⁹⁹ Doubler, *Civilian in Peace, Soldier in War*, 158.

⁴⁰⁰ Millett, Maslowski, and Feis, *For the Common Defense*, 307.

⁴⁰¹ War Department, *Annual Report 1917*, p. 893; Wawro, *Sons of Freedom*, 39.

⁴⁰² War Department, *Annual Report 1917*, 893; Wawro, *Sons of Freedom*, 39.

family while deployed and their erroneous belief that federal missions were voluntary.⁴⁰³

Those guardsmen who did deploy were of questionable quality. Many needed upwards of two months of training before they could deploy.⁴⁰⁴ Others were so out of shape physically that they were unable to conduct a 10-mile road march during a training exercise—which was a problem considering their primary job in the Pancho Villa campaign was to perform foot patrols along the Mexican border.⁴⁰⁵ In the end, the failures of the NG during the Mexico mission had a negligible impact on U.S. security. But in less than a year, the readiness of the NG would become a matter of utmost importance.

Section 2: World War I

The U.S. Army and the NG were unprepared for war against Germany when the United States entered WWI in April 1917. Both organizations were designed largely for defensive operations inside the continental United States against irregular insurgent-like forces or naval raids along the U.S. coastline.⁴⁰⁶ Its senior commanders and staff officers had no experience and little training to prepare them

⁴⁰³ Michael Weaver, *Guard Wars: The 28th Infantry Division in World War II* (Bloomington: Indiana University Press, 2010), 4.

⁴⁰⁴ Wawro, *Sons of Freedom*, 69.

⁴⁰⁵ Ibid., 70; Bratten, *To the Last Man*, 14.

⁴⁰⁶ Eric Setzekorn, *The U.S. Army Campaigns of World War I: Joining the Great War: April 1917-April 1918* (Washington, DC: U.S. Department of the Army, 2017), 5.

for conducting large-scale combined arms operations against a great power military like Germany.⁴⁰⁷

Perhaps the biggest challenge facing the U.S. military in the lead-up to WWI was its small size compared to its allies and adversaries in Europe. Unlike the rest of the Great Powers, the United States relied on a small all-volunteer army backed by a volunteer reserve of national guardsmen. Thus, the U.S. Army at the start of the war only had around 100,000 active soldiers—about a sixteenth of the strength of the German army.⁴⁰⁸ To meet the challenge of fighting against what was then the best army in the world, General John J. Pershing—the overall commander of the nascent American Expeditionary Force (AEF)—projected the need to create an army of at least one million soldiers.⁴⁰⁹

To satisfy Pershing's requirements, the War Department turned to the NG, wartime volunteers, and conscription, which was approved by Congress in April 1917.⁴¹⁰ The War Department organized the volunteers, draftees, guardsman, and active soldiers into three types of combat divisions: active army divisions (numbered 1 to 25), divisions formed from the NG (numbered 26 to 75), and the National Army formed of new conscripts and volunteers (numbered 76 and above, with the exception of the 93rd).⁴¹¹

⁴⁰⁷ Wawro, *Sons of Freedom*, 54-55.

⁴⁰⁸ Coffman, *The Regulars*, 203.

⁴⁰⁹ Millett, Maslowski, and Feis, *For the Common Defense*, 313-14.

⁴¹⁰ Wawro, *Sons of Freedom*, 16.

⁴¹¹ U.S. Army Center of Military History, *American Military History: Volume II*, 21.

NG activations began in mid-July 1917. That summer, guard divisions and regiments from across the United States reported to hastily assembled training camps, where active duty trainers and administrators determined many guardsmen were ineligible or unprepared for federal service.⁴¹² As had been the case a year earlier during the Pancho Villa campaign, many guardsmen were unable to meet basic physical fitness standards set by the active army. In fact, over 16,000 guardsmen had been rejected from active service during the Mexican border mission due to such issues.⁴¹³

Training standards also remained low. In some states, as many as 50 percent of guardsmen had never fired a rifle or attended a full drill.⁴¹⁴ Meanwhile, guard officers had struggled to keep up with the rising standards of officership placed upon them by the reserve reform acts, as civilian and family commitments interfered with their ability to attend schools.⁴¹⁵ French liaison officers who visited these training camps in the summer and fall of 1917 would conclude that most NG units were “poor” and lacking in discipline under the leadership of “bankers and business types, who are political appointees with poor physical conditioning.”⁴¹⁶

⁴¹² Militia Bureau, *Annual Report 1918*, 9-10.

⁴¹³ Militia Bureau, *Annual Report 1917*, 51; Wawro, *Sons of Freedom*, 66.

⁴¹⁴ Donald Smythe, *Pershing: General of the Armies* (Bloomington: University of Indiana Press, 2007), 8-9; NGA, *Proceedings of the National Guard Association of the United States: 1913*, 17-18.

⁴¹⁵ Doubler, *Civilian in Peace, Soldier in War*, 149.

⁴¹⁶ Wawro, *Sons of Freedom*, 69.

Perhaps a bigger challenge than the readiness issues, which could be mitigated through training programs, was the fact that NG divisions showed up understrength. Some members of these divisions even refused to report for federal service, as they had not yet taken the dual federal and state oaths of enlistment as mandated by the 1916 NDA.⁴¹⁷ Others sought and received exemptions from service from the War Department to take care of family members at home.⁴¹⁸ Another 40,000 guardsmen could not report to duty because they were completing the Mexican border mission or were held up by a host of administrative or medical problems.⁴¹⁹ Given these issues, the guard could only muster about 174,000 personnel—far fewer than its nominal strength of 433,000.⁴²⁰

To address these shortfalls, the NG turned to draftees, volunteers, and active duty soldiers. Between April and August 1917, around 180,000 volunteers and draftees joined the NG.⁴²¹ Thousands more would join their ranks after the guard arrived to France.⁴²² This blending of personnel—guardsmen, active duty soldiers,

⁴¹⁷ Jerry Cooper, *The Rise of the National Guard: The Evolution of the American Militia, 1865-1920* (Omaha: University of Nebraska Press, 1997), 167.

⁴¹⁸ Staff Writers, “DC Guard to Drop All Married Men,” *The Washington Post*, 12 April 1917, 5.

⁴¹⁹ Cooper, *The Rise of the National Guard*, 167; U.S. War Department, *Annual report of the Secretary of War* (1918), 1, 1103. 1111; Militia Bureau, *Annual Report 1917*, 31; John O’Ryan, *The Story of the 27th Division* (London: Franklin Classics, 2018 [1921]), 583.

⁴²⁰ Mark Calhoun, *General Lesley J. McNair: Unsung Architect of the U. S. Army* (Lawrence: University of Kansas Press, 2015), 50; U.S. War Department, *Annual report of the Secretary of War* (1918), 1, 1106.

⁴²¹ Staff Writers, “Recruiting Shows 1,750,000 Volunteer,” *New York Times*, 05 August 1917, 12; O’Ryan, *The Story of the 27th Division*, 605.

⁴²² U.S. War Department, *Order of Battle of the United States Land Forces in the World War* (Washington, DC: Government Printing Office, 1988 [1931]), 179.

volunteers, and draftees—essentially broke down the distinctions that had differentiated a guard division from an active or National Army division.

Distinctions broke down further with the mass discharge and replacement of guard officers during the first year of the war. In the summer of 1917, the War Department replaced underperforming or unfit guard officers with active duty or newly commissioned officers who had attended hastily organized three-month officer schools.⁴²³ The department could do this—despite guard protests—because NG units activated for federal service no longer had the protection of their respective state governors and adjutants general (AGs).⁴²⁴

The War Department replaced or even fired guard officers for a variety of reasons. The most common was that they were over the age of 45, the maximum age that General Pershing would allow for an officer to serve in combat.⁴²⁵ Others—about 500 in total—were discharged because they could not pass physical fitness boards.⁴²⁶ And around 350 failed efficacy boards chaired by active duty officers who tested their knowledge to serve in mid and senior-level command and staff positions.⁴²⁷ Ultimately, the War Department discharged 10 percent of the NG officer corps in the first year of the war, while many others were removed from their

⁴²³ Wawro, *Sons of Freedom*, 74; Militia Bureau, *Annual Report 1918*, 18.

⁴²⁴ Staff Writers, “State Soldiers to Be...To New Armies,” *Chicago Daily Tribune*, 07 June 1917, 2.

⁴²⁵ Staff Writers, “Only Those Fit for War Service Will Lead Men,” *Chicago Daily Tribune*, 12 December 1917, 2.

⁴²⁶ War Department, *Annual Report of the Secretary of War (1918)*, 1, 1109, 1111.

⁴²⁷ *Ibid.*, 1, 1109; Staff Writers, “Generals Being Examined for Service in France,” *St. Louis Post*, 12 December 1917, 3.

positions as commanders and staff officers in infantry divisions and brigades and reassigned to support roles.⁴²⁸

While its senior and mid-ranking leaders came under intense scrutiny, guard divisions underwent a major reorganization from a triangular model based around three infantry regiments to a rectangular model of four regiments. Pershing and other senior U.S. Army officers had determined such a change was necessary to ensure U.S. infantry divisions had sufficient manpower and material to execute independent operations and to withstand the heavy attrition rates of the WWI battlefield.⁴²⁹

Some members of the guard were confused and upset by these changes. To adhere to the square division structure, the NG had to consolidate many units and shift personnel to other positions or separate units.⁴³⁰ States, like Missouri, protested these changes, fearing guard officers would lose command positions, and units would lose their unique state identities.⁴³¹ The restructuring also generated discontent at the soldier-level. Much to their dismay, some infantrymen had to give up their careers as riflemen and reclassify as logistics, administrative, or transport personnel to support

⁴²⁸ Setzekorn, *Joining the Great War: April 1917-April 1918*, 37; Militia Bureau, *Annual Report 1918*, 126.

⁴²⁹ Coffman, *The Regulars*, 204-05; William Odom, *After the Trenches: The Transformation of the U.S. Army, 1918-1939* (College Station: Texas A&M Press, 1999), 19.

⁴³⁰ War Department, *Annual report of the Secretary of War* (1918), 1, 1104-05; Staff Writers, "National Guard Units Being Consolidated," *The Atlanta Constitution*, 25 September 1917, 7.

⁴³¹ Staff Writers, "National Guard Units Being Consolidated," 7; War Department, *Annual Report of the Secretary of War* (1918), 1, 1105.

new square divisions.⁴³² Despite these concerns, the War Department pushed forth with the restructuring in the summer and fall 1917.

The reorganization of the NG into square divisions left some units without a parent division, which led the army to create two new NG divisions: the 42nd and 93rd. The 42nd, nicknamed the Rainbow Division, was established with guard units from 27 different states—an idea proposed by Major Douglas MacArthur and approved by the War Department.⁴³³ MacArthur would go on to serve as the division's commander.⁴³⁴ The 93rd, meanwhile, was formed with African American guard units from seven different states. The re-organization of NG further transformed its character from an organization composed of mostly independent regimental units into a more cohesive force that integrated men from multiple states.

As the reorganization proceeded, NG divisions underwent extensive training to prepare for service in France. Initially, the U.S. Army intended for this training period to last an entire year.⁴³⁵ But French and British commanders demanded that the Americans arrive sooner to boost Allied morale and provide much-needed manpower ahead of a feared German offensive in 1918.⁴³⁶ The War Department agreed to accelerate the training timeline to as little as two months of stateside

⁴³² Doubler, *Civilian in Peace, Soldier in War*, 172-73.

⁴³³ War Department, *Annual Report of the Secretary of War* (1918), 1, 1102; Henry Reilly, *Americans All; the Rainbow at War: Official History of the 42nd Rainbow Division in the World War* (New York: FJ Heer Printing Company, 1936), 26.

⁴³⁴ William Manchester, *American Caesar: Douglas MacArthur 1880 – 1964* (Boston: Little, Brown and Company, 1978), 84.

⁴³⁵ Smythe, *Pershing: General of the Armies*, 7.

⁴³⁶ *Ibid.*, 7-8.

training, with the goal of getting some divisions to France by the end of 1917.⁴³⁷ But that goal proved unrealistic, considering the poor state of readiness of the active army and NG and the time required to draft, train, and integrate raw recruits. Thus, by the end of summer, the War Department increased the training timeline to 16 weeks, with the expectation of additional training to follow while in France. During this period, units would conduct progressively complex exercises, starting with individual-level soldier skills and ending with collective maneuvers at the battalion-level and above.⁴³⁸

Stateside training almost certainly helped build unit preparedness and cohesion before deployment; but these efforts faced several obstacles. Equipment shortages associated with the massive growth in the size of the army meant that some soldiers had to train without rifles or other essential equipment.⁴³⁹ Low literacy rates among recruits also forced units to devote scarce time to teaching soldiers basic reading and writing skills.⁴⁴⁰ Training also suffered because the army pulled away experienced officers and NCOs to attend Schools of Arms to enhance their understanding of army tactics and administrative procedures.⁴⁴¹

⁴³⁷ Writers, "Intensive Drill in the U.S. 2 Months, Then to Europe," *Chicago Daily Tribune*, 17 July 1917, 2.

⁴³⁸ Staff Writers, "16 Weeks' Training of War Forces Here," *New York Times*, 06 October 1917, 7.

⁴³⁹ Setzekorn, *Joining the Great War: April 1917-April 1918*, 27; The Wisconsin War History Commission, *The 32nd Division in the World War 1917-1919* (Madison: Wisconsin Printing Company, 1920), 30.

⁴⁴⁰ Setzekorn, *Joining the Great War: April 1917-April 1918*, 30.

⁴⁴¹ The Wisconsin War History Commission, *The 32nd Division in the World War*, 30, 34; Bratten, *To the Last Man*, 22.

One of the more problematic aspects of the training was that it was not preparing units to fight according to the standards of the latest army doctrinal concepts. Pershing and other senior officers had devised an open warfare doctrine in 1917 that aimed to restore mobility to the battlefield through aggressive, offensive infantry operations supported by artillery.⁴⁴² But each training camp taught doctrine according to preferences of their respective cadres.⁴⁴³ And those cadres were not always aware of—or well versed in—open warfare concepts. The War Department belatedly identified this problem and appointed an officer to supervise and standardize training in January 1918.⁴⁴⁴ Yet by that time, some units were already deployed, as Table 2.2 shows.

The 26th (Yankee) and the 42nd (Rainbow) divisions were the first guard units to arrive in France in the early fall of 1917, joining two active duty divisions—the 1st and 2nd—that had deployed three months earlier. Pershing’s staff considered the 26th and 42nd to be the best guard divisions, given they had recently completed a federal activation as part of the Pancho Villa campaign.⁴⁴⁵ Over the next year,

⁴⁴² U.S. Army Center of Military History, *American Military History: Volume II*, 22; Setzekorn, *Joining the Great War: April 1917-April 1918*, 44.

⁴⁴³ Staff Writers, “Army Trains Now Under One Head,” *New York Times*, 14 January 1918, 6.

⁴⁴⁴ Ibid.

⁴⁴⁵ Henry Benwell, *History of the Yankee Division* (Boston: Cornhill Company, 1919), 25; War Department, *Annual Report to the Secretary of War* (1918), 1, 8; Wawro, *Sons of Freedom*, 84; John Pershing, *My Experiences in the World War* (New York: Frederick A. Stokes, 1931), 17-18.

another sixteen NG divisions arrived. Pershing, however, dismantled six of them to bring undermanned divisions to full strength.⁴⁴⁶

Division	States	Activated	Deploys	Enters Battle	Time Between Activation and Entering Combat
26th	CT, MA, ME, NH, RI, VT	25 JUL 17	06 SEP 17	05 FEB 18	6 Months
27th	NY	15 JUL 17	28 APR 18	19 AUG 18	13 Months
28th	PA	15 JUL 17	21 APR 18	15 JUL 18	12 Months
29th	NJ, VA, MD, NE, DC	18 JUL 17	14 JUN 18	25 JUL 18	12 Months
30th	NC, SC, TN	18 JUL 17	07 MAY 18	16 JUL 18	12 Months
31st	GA, AL, FL	18 JUL 17	15 SEP 18	17 OCT 18 – Split apart to fill other units	
32 nd	MI, WI	15 JUL 17	02 JAN 17	20 MAY 18	10 Months
33 rd	IL	18 JUL 17	08 MAY 18	17 JUL 18	12 Months
34th	MN, IA, NE	15 JUL 17	09 SEP 18	17 OCT 18 – Split apart to fill other units	
35th	MO, KS	28 JUL 17	16 APR 18	20 JUN 18	11 Months
36th	TX, OK	18 JUL 17	15 JUL 18	26 SEP 18	14 Months
37th	OH	15 JUL 17	06 JUN 18	04 AUG 18	13 Months
38th	IN, KY, WV	15 JUL 17	15 SEP 18	17 OCT 18 – Split apart --to fill other units	
39th	LA, MS, AR	18 JUL 17	05 AUG 18	29 OCT 18 – Split apart to fill other units	
40th	CA, NV, UT, CO, AZ, NM	18 JUL 17	26 JUL 18	24 OCT 18 – Becomes a Replacement Unit	
41st	WA, OR, MT, WY	18 JUL 17	26 NOV 17	20 DEC 18 – Becomes a Replacement Unit	
42nd	DC and 26 Other States Contribute	01 AUG 17	18 OCT 17	21 FEB 18	6 Months
93d	NY, IL, OH, DC, MD, TN, MA	24 OCT 17	29 MAY 18	23 AUG 18	10 Months

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⁴⁴⁶ Data collected on pages 113-288 of War Department, *Order of Battle of the United States Land Forces in the World War*.

⁴⁴⁷ Ibid.; War Department, *Annual Report of the Secretary of War* (1918), 1, 1103-04; Doubler, *Civilian in Peace, Soldier in War*, 179.

Upon arriving to France, NG divisions underwent additional training.⁴⁴⁸ Training began in relatively quiet sectors under the supervision of active duty officers and allied advisors.⁴⁴⁹ Over a period of three to six months, they progressed to more complex tasks, while moving closer to the front.⁴⁵⁰ The Americans even had a chance to experience combat as German raiding parties attacked or shelled their lines and training areas.⁴⁵¹ Those experiences certainly helped boost the Americans' experience levels. But some ended in disaster. On 20 April 1918 near the village of Seicheprey, German raiders surprised and overran forward elements of the 26th Division, whose commander and staff were caught completely unprepared for managing the ensuing battle that left 86 Americans dead.⁴⁵²

Not all divisions had such opportunities (good or bad) to gain battlefield experience. Those that arrived later in the spring or summer of 1918 had to compress training to a month or two, so they could help contain the German offensives.⁴⁵³ And in some cases, replacements arriving to guard, active, or NA divisions had little to no time to train. As one officer from the time recalled, "There were cases of soldiers

⁴⁴⁸ Benwell, *History of the Yankee Division*, 34.

⁴⁴⁹ Strachan, *The Oxford Illustrated History of the First World War*, 246; Reilly, *Americans All; the Rainbow at War: Official History of the 42nd Rainbow Division in the World War*, 100.

⁴⁵⁰ HG Proctor, *The Iron Division: National Guard of Pennsylvania in the World War* (Philadelphia: John C. Winston Company, 1919), 23.

⁴⁵¹ Wawro, *Sons of Freedom*, 137-38.

⁴⁵² *Ibid.*, 136-38.

⁴⁵³ U.S. Army Center of Military History, *American Military History: Volume II*, 26.

dead in the field of France who had been civilians only days, rather than weeks or months before.”⁴⁵⁴

During their training period in France, guardsmen came under the direct supervision and scrutiny of General Pershing. Pershing had mixed—and often negative—opinions about the guard, judging from his diaries and post war writings. At times, he questioned whether senior guard officers were overly politicized, given their state appointments and the tendency of some commanders—like the commander of the 26th Division—to use political connections back home to shield themselves from Pershing’s rebukes.⁴⁵⁵

Yet, at several points in his diaries, Pershing also noted the high quality of some guard soldiers, including the soldiers of 35th Division, and the quality leadership of General John O’Ryan, a guard officer who commanded New York’s 27th Infantry Division.⁴⁵⁶ Despite his praises of O’Ryan, Pershing still assessed that the “27th Division is a typical militia organization...[with] great possibilities,” suggesting he viewed it as low quality compared to an active duty division.⁴⁵⁷ He also harshly criticized the leaders of the 29th Division following an August 1918 meeting in which

⁴⁵⁴ Critique of the Second Phase of GHQ-Directed Maneuvers, November 1941, 1, in Lesley McNair Papers, Box 2, Unnumbered folder: Speeches and Writings (1941-42), Library of Congress.

⁴⁵⁵ Pershing, *My Experiences in the World War*, 112; Wawro, *Sons of Freedom*, 137-38.

⁴⁵⁶ John J. Pershing. *Diary Entry For May 29, 1918*. Diary. 82, Library of Congress, *John J. Pershing Papers, Diaries, Notebooks, and Address Books, 1882-1925; Diaries; Set 1; 1917, May 7-1918, Sept. 1*, accessed 25 October 2019, <https://www.loc.gov/resource/mss35949.00103/?st=gallery>; John J. Pershing. *Diary Entry For July 02, 1918*. Diary., p. 98, Library of Congress, *John J. Pershing Papers, Diaries, Notebooks, and Address Books, 1882-1925; Diaries; Set 1; 1917, May 7-1918, Sept. 1*, <https://www.loc.gov/resource/mss35949.00103/?st=gallery> (accessed 25 October 2019).

⁴⁵⁷ Pershing, *Diary Entry for July 02, 1918*, 98.

he was disappointed by those commanders' lack of understanding of the battlefield situation and the apparent efforts by one colonel to "hide his ignorance."⁴⁵⁸

Pershing's views were likely validated in part by reports he received from allied advisors who maintained in the spring of 1918 that guard division and regimental-level leaders were of questionable quality.⁴⁵⁹

Pershing was quick to fire and replace underperforming guard officers as well as active duty ones who did not meet his standards.⁴⁶⁰ Most often, he relieved officers who failed to meet physical fitness or age standards.⁴⁶¹ He sacked Major General William Mann, the commander of the 42nd Infantry Division, for demonstrating poor physical fitness and low energy.⁴⁶² In other cases, division commanders were relieved for obscure reasons. Brigadier General Charles Martin of Kansas recalled in 1919 how an active duty officer relieved him of division command because he "lacked force," even though that same officer considered Martin a capable commander.⁴⁶³ Only Major General O'Ryan of the 27th Division, who Pershing thought highly of, remained in command of his division for the entire war.⁴⁶⁴

⁴⁵⁸ Pershing, *Diary Entry for August 20, 1918*, 123.

⁴⁵⁹ Pershing, *Diary Entry for March 06, 1918*, 55.

⁴⁶⁰ Pershing, *Diary Entry for June 09, 1918*, 89; Wawro, *Sons of Freedom*, 96.

⁴⁶¹ Richard Faulkner, "Gone Blooey": Pershing's System for Addressing Officer Incompetence and Inefficiency," *Army History*, No. 95 (Spring 2015), 14.

⁴⁶² Calhoun, *General Lesley J. McNair: Unsung Architect of the U. S. Army*, 53.

⁴⁶³ Staff Writers, "Brig. Gen. Martin Tells Of Injustice to Officers During Argonne Offensive," *Washington Post*, 21 February 1919, 5.

⁴⁶⁴ Doubler, *Civilian in Peace, Soldier in War*, 181.

Many Guard officers believed that Pershing and his staff unfairly targeted them. Captain Evan Edwards from the 35th Infantry Division complained how, “We are told that no word should be spoken that criticizes the individual Regular Army officer. But the National Guard officer was criticized—stamped by an efficiency board as incompetent or not fully efficient, and the reasons named. Sometimes they were not even named.”⁴⁶⁵ And in some cases, active duty officers had predetermined that NG officers were incompetent. One officer, for instance, revealed his prejudice while assessing First Lieutenant Evan Ridgley of the NG. In that officer’s opinion, Ridgley was “a typical NG Officer of the undesirable type, lacks leadership and the power of discipline.”⁴⁶⁶ Pershing himself would later admit after the war during congressional testimony that there “was always more or less prejudice against” guardsmen during the war.⁴⁶⁷ And he passed on his negative views about the NG to his protégé, Major Leslie McNair, who later clashed with NG leaders during WWII.⁴⁶⁸

Despite Pershing’s concerns, NG divisions entered combat, and some even distinguished themselves. During its ten months of near-continuous service at the front, the 27th Division earned high praise from active duty officers and from French allies.⁴⁶⁹ The 42nd Division, meanwhile, became one of the most decorated U.S.

⁴⁶⁵ Faulkner, “Gone Blooey,” 11.

⁴⁶⁶ Ibid.

⁴⁶⁷ Doubler, *Civilian in Peace, Soldier in War*, 187.

⁴⁶⁸ McNair personally witnessed several guard units losing cohesion and performing poorly in combat during WWI, as described in Wawro, *Sons of Freedom*, 318-21.

⁴⁶⁹ Benwell, *History of the Yankee Division*, 3.

divisions in the war.⁴⁷⁰ Even the Germans recognized the quality of some NG divisions. Of the eight U.S. divisions that the Germans deemed highly effective, six were NG.⁴⁷¹

Division	Campaigns	Killed in Action	Wounded in Action	Total
26	Champagne-Marne ; Aisne-Marne ; St. Mihiel ; Meuse-Argonne	2,281	11,383	13,664
27	Somme Offensive; Ypres-Lys; Meuse Argonne (field artillery only)	1,829	6,505	8,334
28	Champagne-Marne; Aisne-Marne; Oise-Aisne; Ypres-Lys (field artillery only); Meuse-Argonne	2,874	11,265	14,139
29	Meuse-Argonne	1,053	4,517	5,570
30	Somme Offensive; Ypres-Lys; St. Mihiel; Meuse-Argonne	1,641	6,774	8,415
31	No campaigns; broken up for replacements	N/A	N/A	N/A
32	Aisne-Marne ; Oise-Aisne ; Meuse-Argonne	3,028	10,233	13,261
33	Somme Offensive; St. Mihiel (field artillery only); Meuse-Argonne	993	5,871	6,864
34	No campaigns; broken up for replacements	N/A	N/A	N/A
35	Meuse-Argonne	1,298	5,998	7,296
36	Meuse-Argonne	591	1,993	2,584
37	Ypres-Lys; Meuse-Argonne	1,066	4,321	5,387
38	No campaigns; broken up for replacements	N/A	N/A	N/A
39	No campaigns; broken up for replacements	N/A	N/A	N/A
40	No campaigns; broken up for replacements	N/A	N/A	N/A
41	No campaigns; broken up for replacements	N/A	N/A	N/A
42	Campagne-Marne ; Aisne-Marne ; St. Mihiel ; Meuse-Argonne	2,810	11,875	14,683
93	Oise-Aisne ; St. Mihiel ; Meuse Argonne	591	2,943	3,535
TOTAL				103,731

⁴⁷⁰ War Department, *Annual Report of the Secretary of War to the President* (1923), 162-74; Manchester, *American Caesar*, 92.

⁴⁷¹ Doubler, *Civilian in Peace, Soldier in War*, 183.

⁴⁷² Data from Hill, *The Minute Man in Peace & War*, 285.

Yet at least three other guard divisions—the 26th, 28th, and 35th—struggled mightily. In July 1918, during the Aisne-Marne Offensive, the 26th performed disastrously near Épiéds when its inexperienced officers failed to conduct proper preparatory artillery strikes on German lines.⁴⁷³ In the assault that followed, one of the division’s infantry regiments was “practically wiped out;” and some of its sister regiments lost cohesion, becoming unresponsive to orders.⁴⁷⁴ Afterward, the I Corps commander, who oversaw the 26th, recommended replacing all of the regimental and battalion commanders in one of the division’s brigades.⁴⁷⁵ Pershing, in turn, dispatched several staff officers to reorganize the division.⁴⁷⁶

Later, during the Meuse-Argonne Offensive (26 September 1918 to 11 November 1918), two NG divisions—the 28th and 35th—performed badly, exhibiting extremely poor discipline and suffering heavy losses.⁴⁷⁷ In one instance, hundreds of members of the 35th discarded their rifles and helmets and fled the battlefield, as members of U.S. 1st Infantry Division reported at the time.⁴⁷⁸ I Corps headquarters, however, was unsurprised by the performance, noting “this is exactly what one expects of a National Guard division.”⁴⁷⁹

⁴⁷³ Wawro, *Sons of Freedom*, 216-220.

⁴⁷⁴ *Ibid.*, 217-19.

⁴⁷⁵ *Ibid.*, 218.

⁴⁷⁶ *Ibid.*, 219.

⁴⁷⁷ *Ibid.*, 318-20, 370-72.

⁴⁷⁸ *Ibid.*, 370-71.

⁴⁷⁹ *Ibid.*, 371.

The combat record of the non-NG American divisions was by no means beyond reproach. Nearly all these units experienced difficulties coordinating division-level operations. U.S. Army officers also crafted rigid plans, due in part to Pershing's distrust of their ability to take the initiative and to fight effectively without direct supervision from higher headquarters.⁴⁸⁰ Nevertheless, despite these defects, the U.S. Army—of which the NG was an important component—helped stem the tide of German offensives and went on the attack in an allied offensive that brought an end to the war in November 1918.⁴⁸¹

The NG contributed to these successes by providing nearly two hundred thousand semi-trained soldiers who helped grow the U.S. Army for WWI and train and mentor new soldiers assigned to guard divisions.⁴⁸² And even though senior guard officers were purged from combat commands, they still served in vital supporting roles. Such work lacked the glamor of operational leadership, but nonetheless helped United States to create and sustain a powerful expeditionary force in Europe, which was critical to the defeat of German military power.⁴⁸³

On the other hand, the guard's shortcomings in battle performance in WWI confirmed pre-war reservations about its ability to serve as a front-line reserve. As its critics had predicted, the guard was unready for serious fighting when activated in the

⁴⁸⁰ Millett, Maslowski, and Feis, *For the Common Defense*, 328.

⁴⁸¹ Wawro, *Sons of Freedom*, xxiv, xxvi.

⁴⁸² Calhoun, *General Lesley J. McNair: Unsung Architect of the U. S. Army*, 50; War Department, *Annual report of the Secretary of War* (1918), 1, 1106; For an example of how guard personnel helped train and mentor new soldiers see Bratten, *To the Last Man*, 24

⁴⁸³ Militia Bureau, *Annual Report 1918*, 11.

spring of 1917 due largely to its low peacetime training, administrative, and personnel standards. And even after a year of pre-deployment training and reorganization, multiple guard divisions nearly collapsed in combat.

To blame the guard alone for those struggles is unfair.⁴⁸⁴ As discussed, guard divisions that deployed to France in 1918 were hybrid organizations that in many cases were led by active duty officers and staffed by a mixture of guardsmen, wartime volunteers, and conscripts. As the commander of the 27th Division noted after the war, his division “was not a Regular Army division, it was not a National Guard division, nor was it a National Army division; it was a division of the army of the United States...”⁴⁸⁵ And the guard as a whole made up only about 10 percent of the AEF (77 percent were volunteers and conscripts, 13 percent were active duty).⁴⁸⁶ In other words, the entire U.S. Army was responsible for the guard’s failures and successes during the war.

Section 3: The Interwar Years

In the immediate aftermath of WWI, the NG confronted two major challenges: the battle to survive demobilization and renewed efforts by active duty leaders to replace it. The demobilization challenge came first. After the war, the War Department decided to demobilize guardsmen by freeing them from all military

⁴⁸⁴ Historians like Geoffrey Wawro seemingly placed all the blame for the struggles of the 26th, 28th, and 35th division on guard leaders. See Wawro, *Sons of Freedom*, 216-220; 318-20, 370-72.

⁴⁸⁵ Benwell, *History of the Yankee Division*, xii.

⁴⁸⁶ Coffman, *The Regulars*, 205.

service, meaning they did not have to return to their state units.⁴⁸⁷ And after over a year of federal service, many returning guardsmen gladly accepted their release. Consequently, the guard essentially ceased to exist by 1920. In fact, that year, 14 states could not staff a single unit, forcing guard leadership to spend the next three years focused almost completely on recruitment and retention.⁴⁸⁸

As it rebuilt itself, the NG confronted a renewed effort by the War Department and active duty officers to replace it. In January 1919, the War Department and the U.S. Army Chief of Staff Payton March (1918-21) revealed their vision—known as the Army Reorganization Plan—for the post war U.S. Army. As part of this plan, the army aimed to grow to its peacetime strength to around 500,000 active soldiers backed by 500,000 reservists.⁴⁸⁹ Those reservists, however, would be a federally controlled force built through universal military training of all 19-year-old males.⁴⁹⁰

Despite its weakened position following demobilization, the NG and its supporters launched a campaign to block the reorganization plan. They wrote letters to prominent businessmen; they sponsored pro-guard newspaper articles; and they enlisted the support of the National Guard Association of the United States (NGAUS – the new name for the NGA) to rally support in Congress.⁴⁹¹ And while doing so, they touted the accomplishments of the guard in WWI and countered charges of

⁴⁸⁷ Cooper, *The Rise of the National Guard*, 171; Doubler, *Civilian in Peace, Soldiers in War*, 186.

⁴⁸⁸ CNGB, *Annual Report 1921*, 6; CNGB, *Annual Report 1923*, 9-10.

⁴⁸⁹ Doubler, *Civilian in Peace, Soldiers in War*, 186.

⁴⁹⁰ Ibid.

⁴⁹¹ Staff Writers, “Brig. Gen. Martin Tells Of Injustice to Officers During Argonne Offensive,” 5; Doubler, *Civilian in Peace, Soldier in War*, 188.

guard incompetence in the war by claiming such criticisms reflected anti-guard biases.⁴⁹²

Ultimately, the NG's campaign succeeded. Sympathetic members of Congress rejected compulsory universal military service, citing fears of militarism and the financial costs of such a program.⁴⁹³ And without universal and compulsory service the War Department had no way to grow a federally controlled reserve force. The NG, therefore, would remain the first line reserve of the U.S. Army.

The 1920 National Defense Act (NDA) emerged from the ashes of the Reorganization Plan. Passed by Congress and signed by the President on 04 June 1920, the NDA grew the active army to 288,000 soldiers—far smaller than what the War Department wanted.⁴⁹⁴ The NG, meanwhile, would continue to serve as the “first reinforcement of the regular army” in the event of a crisis.⁴⁹⁵ The Organized Reserve—composed of demobilized NA divisions—provided a pool of trained officers and NCOs who could serve as trainers and leaders for wartime conscripts and volunteers.⁴⁹⁶ Today, the U.S. Army largely retains this three component structure:

⁴⁹² Staff Writers, “Brig. Gen. Martin Tells Of Injustice to Officers During Argonne Offensive,” 5.

⁴⁹³ Millett, Maslowski, and Feis, *For the Common Defense*, 343-44; Derthick, *The National Guard and Politics*, 45.

⁴⁹⁴ U.S. Army Center of Military History, *American Military History Volume II*, 30; Hill, *The Minute Man in Peace & War*, 310.

⁴⁹⁵ Staff Writers, “New Army Policy Fixed by Harding,” *The New York Times*, 25 July 1921.

⁴⁹⁶ Doubler, *Civilian in Peace, Soldier in War*, 188; Millett, Maslowski, and Feis, *For the Common Defense*, 344; John Boyd, “America’s Army of Democracy: The National Army, 1917-1919,” *Army History*, No. 109 (Fall 2018), 8.

the active army, the NG, and the Organized Reserve (now called the U.S. Army Reserve (USAR)).

The 1920 NDA improved NG readiness, while boosting its influence in national security policy. It enhanced readiness by mandating that guardsmen maintain the same equipment and organizational standards as active soldiers.⁴⁹⁷ Doing so, in theory, decreased the time to mobilize and deploy a unit, as it no longer had to undergo a lengthy reorganization prior to deployment. And to ensure that the NG would survive a future demobilization process, the NDA mandated all guardsmen discharged from federal service had to return to their units after federal service.⁴⁹⁸ To increase the influence of the NG over its own affairs, the act placed a guard Major General into the position of the Chief of the Militia Bureau (CMB), the senior NG administrative position that active duty officers previously held.⁴⁹⁹ The NG also gained more positions on the Army General Staff, providing it greater influence over Army and War Department policies.⁵⁰⁰

Following the passage of the 1920 NDA, the U.S. Army reorganized to meet new requirements and address lessons learned from WWI. To do so, it divided its forces into nine corps, each of which controlled one active, two guard, and three reserve divisions.⁵⁰¹ However, most divisions, except for those deployed along the

⁴⁹⁷ War Department, *Annual Report 1928*, 8.

⁴⁹⁸ Doubler, *Civilian in Peace, Soldier in War*, 188.

⁴⁹⁹ Hill, *The Minute Man in Peace & War*, 297; Doubler, *Civilian in Peace, Soldier in War*, 188; Derthick, *The National Guard and Politics*, 56.

⁵⁰⁰ Doubler, *Civilian in Peace, Soldier in War*, 188.

⁵⁰¹ *Ibid.*, 189.

Mexican border, were understrength and had to expand to full strength in wartime via a draft and calls for volunteers.⁵⁰² The army also reorganized the divisions to ensure they were nimbler and had a greater combined arms capability. It did so by cutting the size of the division from 28,105 to 19,385 men by eliminating cavalry and some support personnel.⁵⁰³ It also added a company of light tanks, which the division commander directly controlled.⁵⁰⁴

At the same time, the army introduced new tactical doctrine—Field Service Regulation (FSR) 1923—based on lessons learned in WWI.⁵⁰⁵ FSR 1923 increased the complexity of U.S. combat doctrine significantly.⁵⁰⁶ As historian Edward Coffman explained, previous U.S. Army doctrine only asked soldiers to conduct very basic tasks: “shoot, march, and live in the field.”⁵⁰⁷ FSR 1923, in contrast, envisioned an army of infantrymen capable of doing those same tasks while integrating machine guns, mortars, gas, tanks, and artillery.⁵⁰⁸ “Success in war,” FSR 1923 outlined in its introduction, “can be achieved only by all branches and arms of the service mutually helping and supporting one another in the common effort to attain the desired end.”⁵⁰⁹

⁵⁰² Odom, *After the Trenches*, 22.

⁵⁰³ Ibid., 19-20.

⁵⁰⁴ Ibid., 21.

⁵⁰⁵ Calhoun, *General Lesley J. McNair: Unsung Architect of the U. S. Army*, 57-58.

⁵⁰⁶ Odom, *After the Trenches*, 23; Coffman, *The Regulars*, 263.

⁵⁰⁷ Ibid.

⁵⁰⁸ Ibid.; War Department, *Field Service Regulation 1923* (Washington, DC: Government Printing Office, 1923), 11.

⁵⁰⁹ Ibid., introduction page (unnumbered).

FSR 1923 also increased the demands of soldiering below the battalion level. The regulations, for instance, called for infantrymen to use cover and concealment to cross the fire-swept zone of battle in more flexible formations to defeat enemy machine gun positions, as opposed to advancing upright in linear formations.⁵¹⁰ Ensuring that infantry could move more fluidly, while taking advantage of cover and concealment, required the army to place power in the hands of its junior leadership at the squad to company-level—something it had begun to emphasize as early as 1914.⁵¹¹ Junior officers and NCOs, therefore, had to understand how to control the fire and movement of their platoons and companies with less direct supervision from mid-ranking and senior officers.

To train and educate its officers and soldiers on its new doctrine and equipment, the U.S. Army expanded its school system and training programs.⁵¹² By the end of the 1920s, the army was sending around 53 officers a year to civilian school for training in technical fields.⁵¹³ General Pershing, now serving as the Chief of Staff of the Army (CSA) (1921-24), also enhanced army education with the consolidation of corps-level and below officer training at the Command and General Staff School (CGSS) at Fort Leavenworth, Kansas.

These changes to army organization and training challenged the NG. Recruitment and equipment shortfalls limited its ability to maintain fully staffed

⁵¹⁰ Ibid., 11; Odom, *After the Trenches*, 42, 51.

⁵¹¹ War Department, *Field Service Regulation 1923*, 12-13.

⁵¹² Coffman, *The Regulars*, 233.

⁵¹³ War Department, *Annual Report 1929/30*, 136.

units.⁵¹⁴ Such shortfalls were particularly problematic in the early 1920s, due to the aforementioned decision by the War Department to release demobilizing guard units from state and federal service in 1919. However, all but 20 states were able to meet their recruiting quotas by the mid-1920s.⁵¹⁵ That said, states struggled throughout the 1920s and 30s to acquire and maintain enough of trucks and armored vehicles due to funding shortfalls, thereby limiting the ability of guard units to train.⁵¹⁶

Perhaps the biggest challenge facing the guard in the interwar years was its limited time to train. The NDA of 1920 required guard units to train about 60 days a year.⁵¹⁷ But that number fell to just 48 days because of budgetary constraints in the mid-1920s.⁵¹⁸ Thus, the average guardsman serving a three-year enlistment only trained about 144 days—most of which were just evening training sessions not full days—in his entire career, assuming he did not re-enlist or have prior active duty experience. And much of that time was consumed by administrative tasks and individual skills training in marksmanship and other areas, not on collective training simulating real battle conditions.

Collective training was particularly challenging for guard units. One of the main reasons for this was because guard divisions' subordinate units were scattered across their respective states or sometimes even across state lines.⁵¹⁹ The NG did this

⁵¹⁴ CNGB, *Annual Report 1922*, 5.

⁵¹⁵ Ibid.

⁵¹⁶ CNGB, *Annual Report 1924*, 39.

⁵¹⁷ Hill, *The Minute Man in Peace & War*, 348.

⁵¹⁸ Ibid.

⁵¹⁹ Doubler, *Civilian in Peace, Soldier in War*, 190.

to ensure that units had a large recruiting pool by having armories in as many communities as possible. But this also meant a division or brigade would struggle to assemble for collective maneuvers as their subordinate units would have to drive many miles to link up. Consequently, the only time a guard regiment or division could train collectively was during their two-week annual trainings in the summer.⁵²⁰

Other obstacles got in the way of collective training in the summer. Some units spent about 25 percent of that time—about three or four days out of 15—on individual soldier-level tasks, like marksmanship training, that they had failed to complete earlier.⁵²¹ Driving to and from annual training sites likely consumed several days of training as well.⁵²² Ultimately, what this meant was that guard officers had very few opportunities to command entire units above the company in the field, as the CMB pointed out in his 1924 annual report.⁵²³

In addition to the lack of opportunities for collective training, the NG had inadequate access to schools to keep up with the changing tactical and technical requirements of army doctrine. In 1921, the NG sent 68 infantry officers to the Infantry School at Fort Benning; but 76 other qualified applicants were unable to attend due to insufficient funding.⁵²⁴ This issue was a reoccurring problem for the NG throughout the 1920s—something that the CMB highlighted in the Militia Bureau's

⁵²⁰ CNGB, *Annual Report 1924*, 18.

⁵²¹ CNGB, *Annual Report 1926*, 27.

⁵²² Based on personal experience, it typically takes 1 day to get units to exercise sites from local armies and about 1 day to return.

⁵²³ CNGB, *Annual Report 1924*, 18.

⁵²⁴ CNGB, *Annual Report 1921*, 15.

annual reports.⁵²⁵ With limited school access, guard officers had to learn new doctrine on their own, through peers who were fortunate enough to attend, or through active officers and NCOs assigned to mentor and train NG units.

The Militia Bureau and the states wanted to assign one or two active duty officers and NCOs per NG battalion to provide mentorship and training support.⁵²⁶ But the active army was unable to support these requirements due shortages of officers and NCOs in the 1920s and 30s.⁵²⁷ Some active officers, moreover, sought to avoid service with the guard, fearing it would undermine their professional development.⁵²⁸ One senior active duty officer later conceded that it took “a high order of salesmanship” to convince officers to take assignments with guard or reserve units.⁵²⁹

Despite these challenges, the NG made modest readiness gains during the 1920s. In 1919, the Militia Bureau mandated that all NG officers pass physical, moral, and professional exams to earn and maintain commissions.⁵³⁰ And within five years, nearly all guard officers met these standards.⁵³¹ Additionally, guard units

⁵²⁵ CNGB, *Annual Report 1924*, 25; CNGB, *Annual Report 1928*, 2; CNGB, *Annual Report 1929*, 30.

⁵²⁶ CNGB, *Annual Report 1922*, 11.

⁵²⁷ *Ibid.*, 10; CNGB, *Annual Report 1924*, 20-22; CNGB, *Annual Report 1926*, 38; CNGB, *Annual Report 1928*, 34.

⁵²⁸ See case of Omar Bradley and his assignment to the Hawaii National Guard in 1927, as discussed in Omar Bradley and Clay Blair. *A General's Life* (New York: Simon & Schuster, 1984), 59. And see his discussion on George Marshall's assignment to the Illinois National Guard on page 70.

⁵²⁹ Singleton to Marshall, March 01, 1934, in George Marshall Papers, Box 1, 1/20: March 1934, George Marshall Library.

⁵³⁰ CNGB, *Annual Report 1922*, 50.

⁵³¹ CNGB, *Annual Report 1924*, 5.

conducted more training than they had prior to WWI.⁵³² For instance, five guard divisions completed division-level field maneuvers in the summer of 1928—a rarity for guard and active units alike.⁵³³

The NG's political fortunes also brightened in the 1920s. Following the defeat of the Army Reorganization Plan, guard and active duty army relations improved, as both institutions allied to pressure Congress and the President to raise defense spending.⁵³⁴ The guard also gained greater influence in state politics when it started building armories outside of urban centers and in smaller rural communities, where prominent local businessmen and politicians often joined units and fought to promote guard interests in state legislatures.⁵³⁵

The Great Depression (1929-39) rolled back some gains. Faced with an unprecedented economic crisis, the U.S. Congress made large spending cuts to federal programs. One way it did this was by temporarily reducing the amount of time guard units trained per year from 48 to 36 days between 1934 and 1935.⁵³⁶ School funding also declined.⁵³⁷ In school year 1929-30, for instance, the NG only sent 43 officers to school, compared to 314 the year before.⁵³⁸

⁵³² Doubler, *Civilian in Peace, Soldier in War*, 191; CNGB, *Annual Report 1928*, 2-3.

⁵³³ Doubler, *Civilian in Peace, Soldier in War*, 191.

⁵³⁴ Derthick, *The National Guard and Politics*, 46-48.

⁵³⁵ *Ibid.*, 51-52.

⁵³⁶ Doubler, *Civilian in Peace, Soldier in War*, 191.

⁵³⁷ CNGB, *Annual Report 1934*, 14.

⁵³⁸ CNGB, *Annual Report 1930*, 21; CNGB, *Annual Report 1941*, 8, 67.

Table 2.4: NG Strength and Federal Appropriations to NG ⁵³⁹			
Year	Active Army	National Guard	Federal Appropriations to the NG
1920	200,367	56,017	\$13,177,750
1922	146,507	159,658	\$25,554,100
1924	130,750	176,322	\$29,813,140
1926	133,443	174,969	\$31,779,085
1928	127,837	181,221	\$32,474,888
1930	137,645	182,715	\$32,474,798
1932	132,068	187,413	\$35,109,142
1934	129,729	184,791	\$24,510,030
1936	158,895	189,173	\$33,987,323
1938	183,455	197,188	\$40,958,487
1940	264,118	241,612	\$71,475,977
1941	456,000	283,996	\$88,466,967

The Great Depression also had some positive second order effects. Guard recruitment increased as men sought additional sources of income.⁵⁴⁰ And drill attendance rates improved from around 75 percent in 1930 to an all-time high of 91.5 percent by 1934.⁵⁴¹ With higher attendance rates, units could conduct more realistic training and ensure soldiers were not allowing their military skills to atrophy.⁵⁴²

The NG also benefited from legislation passed in 1933. That year, NGAUS successfully lobbied Congress to amend the NDA of 1916 to reduce confusion regarding the dual nature of the NG as a state and federal force.⁵⁴³ It did so by

⁵³⁹ Ibid., 3, 12, 70; War Department, *Annual Report 1922*, 128; War Department, *Annual Report 1923/24*, 6, 9, 10; War Department, *Annual Report 1926*, 153; War Department, *Annual Report 1928*, 1; CNGB, *Annual Report 1930*, 23; War Department, *Annual Report 1932*, 56; CNGB, *Annual Report 1932*, 1, 33; CNGB, *Annual Report 1934*, 10, 18; War Department, *Annual Report 1934*, 2; CNGB, *Annual Report 1936*, 9, 19; War Department, *Annual Report 1936*, 2; War Department, *Annual Report*, 52, 65; War Department, *Annual Report 1941*, 95; CNGB, *Annual Report 1940*, 28.

⁵⁴⁰ Doubler, *Civilian in Peace, Soldier in War*, 191.

⁵⁴¹ CNGB, *Annual Report 1931*, 14; CNGB, *Annual Report 1934*, 11.

⁵⁴² CNGB, *Annual Report 1932*, 13.

⁵⁴³ Doubler, *Civilian in Peace, Soldier in War*, 193.

clarifying that the NG had two distinct roles. When guardsmen were at home stations or supporting state missions, they fell under the “National Guard of Several States.” When on federal orders for missions or training, guardsmen fell under the “National Guard of the United States.”⁵⁴⁴ Making this distinction law, NGAUS hoped, would ensure that the NG more smoothly transitioned to federal service when activated, without having to pass additional legislation at the federal or state-level.⁵⁴⁵ Additionally, the amended NDA changed the name of the Militia Bureau to the National Guard Bureau (NGB), as it is called today.⁵⁴⁶

As its roles became more defined, the NG worked to keep up with further changes to army doctrine that resulted from a larger modernization effort by the CSA. During his tour as CSA (1930-35), General Douglas MacArthur prioritized modernization and training with the intent of increasing the speed at which the army mobilized and deployed.⁵⁴⁷ To achieve this, MacArthur focused on motorization, mechanization, and improving unit staffing levels.⁵⁴⁸

The NG, like the active army, had to scrounge for money to meet MacArthur’s modernization goals. One way it did this was by characterizing motorization as a cost savings measure. In 1933, the Chief of the National Guard

⁵⁴⁴ Ibid., 194.

⁵⁴⁵ Morris Shepard, Bill Number 73 H.R. 5645, 06 June 1933, 2, http://congressional.proquest.com:80/congressional/docview/t47.d48.9769_srp.135?accountid=14696 (accessed 01 July 2017).

⁵⁴⁶ Doubler, *Civilian in Peace, Soldier in War*, 194; Derthick, *The National Guard and Politics*, 7.

⁵⁴⁷ Millett, Maslowski, and Feis, *For the Common Defense*, 356.

⁵⁴⁸ Center of Military History, *American Military History Volume 2*, 68.

Bureau (CNGB) argued that replacing horses with trucks and tracked vehicles could save money because horses “were eating their heads off” every day in the week, which would cost more than a vehicle that only required fuel during drills.⁵⁴⁹

Budgetary constraints, however, prevented the full motorization or mechanization of the guard, which largely remained a light infantry force during the interwar years.⁵⁵⁰

The second half of the 1930s witnessed major changes to the active army and NG alike as the German and Japanese threat to U.S. interests grew. A key architect of these changes was General Malin Craig who took over as CSA from MacArthur in 1935 and served in that role until mid-1939. Like MacArthur, Craig hoped to develop doctrine and capabilities that would improve the speed and efficacy of army mobilization to avoid some of the delays and problems encountered during WWI.⁵⁵¹

During Craig’s term as CSA, the NG made small gains in readiness. NG end strength rose to meet its goal of 210,000 guardsmen.⁵⁵² And the NG expanded its number of trucks and armored vehicles from around 6,192 in 1934 to over 16,000 by the end of the decade.⁵⁵³ More guardsmen also attended active duty service schools, as shown in Table 2.5.⁵⁵⁴ And in training year 1935-36, 58,000 guardsmen and active duty soldiers came together for the largest ever peacetime guard maneuvers, which

⁵⁴⁹ CNGB, *Annual Report 1946*, 30.

⁵⁵⁰ Coffman, *The Regulars*, 270.

⁵⁵¹ Calhoun, *General Lesley J. McNair: Unsung Architect of the U. S. Army*, 153-54.

⁵⁵² CNGB, *Annual Report 1936*, 1.

⁵⁵³ CNGB, *Annual Report 1934*, 23; CNGB, *Annual Report 1940*, 36.

⁵⁵⁴ CNGB, *Annual Report 1941*, 8, 67.

were part of a wider effort by the War Department to increase active duty and national guard integration and interoperability.⁵⁵⁵ These training events continued throughout the second half of the 1930s, as shown in Table 2.6.

Table 2.5: National Guard Attendance in Army Service Schools ⁵⁵⁶		
Year	Officer	Enlisted
1920	31	150
1922	138	72
1924	327	76
1926	288	117
1928	314	130
1930	268	130
1932	264	121
1934	52	2
1936	376	88
1938	347	102
1940	675	144
1941	803	211

Table 2.6: National Guard Participation in Field Exercises ⁵⁵⁷		
Year	Army-Level Command	NG Divisions Participating
1935	1 st	26th, 27th, 28th, 29th, 43rd, and 44 th
1936	2 nd	32nd, 33rd, 37th, and 38 th
1937	4 th	34th, 35th, 40th, and 41 st
1938	3 rd	30th, 31st, 36th, and 45 th
1939	1 st	26th, 27th, 28th, 29th, 43rd, and 44 th
1940	All	All

In the latter half of the 1930s, the U.S. Army also underwent a major reorganization as it moved to the triangular infantry division structure. The triangular division was a product of years of debate within the army on how to reorganize combat divisions based on lessons learned during WWI and subsequent technological and tactical developments.⁵⁵⁸ CSA Craig's solution was to increase the mobility and

⁵⁵⁵ Ibid., 11; CNGB, *Annual Report 1936*, 1.

⁵⁵⁶ CNGB, *Annual Report 1941*, 8, 67.

⁵⁵⁷ CNGB, *Annual Report 1941*, 11.

⁵⁵⁸ Calhoun, *General Lesley J. McNair: Unsung Architect of the U. S. Army*, 55.

firepower of the army division. To do so, he and his advisors recommended reducing the number of regiments in a division from four to three.⁵⁵⁹ At the same time, divisions would be able to move faster by replacing horses with trucks and armored vehicles and hit harder by adding tanks to the division and by arming infantrymen with the new semi-automatic M1 Garand rifle that had an eight round magazine, as opposed to the single shot, five round magazine rifle of the German army at the time.⁵⁶⁰ General George Marshall, who succeeded replaced Craig as CSA in 1939, authorized the adoption of these changes for the active army and NG in 1940.⁵⁶¹

In addition to reorganizing its divisions, the army updated its tactics through the publication of FSR 1939 in September 1939. FSR 1939 built on the combined arms tactics introduced in the 1923 edition by adding new sections regarding the use of airpower, air defense artillery, trucks, and anti-tank tactics.⁵⁶² It also brought modern tank tactics to the U.S. Army by explaining how commanders could use tanks to break through enemy lines and “penetrate deeply into the hostile position and attack the enemy’s reserves and artillery”—concepts that its European allies and adversaries were experimenting with in the 1920s and 30s, as discussed in the previous chapter.⁵⁶³ And borrowing from German doctrinal concepts, FSR 1939 called for greater initiative by individual soldiers for them to succeed on an

⁵⁵⁹ U.S. Army Center of Military History, *American Military History Volume II*, 70.

⁵⁶⁰ *Ibid.*, 69-70.

⁵⁶¹ *Ibid.*

⁵⁶² Odom, *After the Trenches*, 129.

⁵⁶³ War Department, *FM 100-5: Tentative Field Service Regulations: Operations* (Washington, DC: Government Printing Office, 1939), 7.

increasingly complex and lethal battlefield.⁵⁶⁴ To make FSR 1939 work, however, the army needed high-skilled soldiers and technicians who had the will and ability to take the initiative and understand how to maintain and employ increasingly sophisticated weaponry, such as the tank, and their various support systems.

The soldiers and officers of the NG lacked the resources and time to keep up with these changes to army doctrine and technology. In the late 1930s, widespread equipment shortages persisted in the NG, leading to unrealistic training, especially in newer fields, such as anti-tank and anti-aircraft tactics.⁵⁶⁵ Of particular concern to the CNGB was the shortage of radio equipment, which severely restricted the ability of units to practice combined arms maneuvers integrating tanks, infantry, and artillery.⁵⁶⁶ Furthermore, NG divisions generally lacked access to training ranges large enough to allow all of their units to conduct realistic maneuvers.⁵⁶⁷ And time for collective training was further restricted by a growing need to focus on individual skills during annual training. One reason for this problem was that the increased ranges and calibers of army munitions associated with the M1 Garand and .30 caliber machine gun prevented about 50 percent of guard units from conducting marksmanship training at home station due to safety concerns.⁵⁶⁸

⁵⁶⁴ Ibid., 7; Odom, *After the Trenches*, 134.

⁵⁶⁵ CNGB, *Annual Report 1939*, 12-13, 24.

⁵⁶⁶ CNGB, *Annual Report 1936*, 13; CNGB, *Annual Report 1938*, 18.

⁵⁶⁷ CNGB, *Annual Report 1936*, 10.

⁵⁶⁸ CNGB, *Annual Report 1937*, 9-11; CNGB, *Annual Report 1938*, 17; CNGB, *Annual Report 1936*, 11; CNGB, *Annual Report 1938*, 17; CNGB, *Annual Report 1939*, 24.

Perhaps the biggest problem facing guard units during the 1930s was that its officer and NCO corps lacked the experience and schooling to manage internal training programs. During weekly drills, guard trainers often just read manuals to their soldiers, rather than running them through dynamic exercises that tested whether they understood how to apply the tactics and techniques within those manuals.⁵⁶⁹ And since most training took place on weeknights, many soldiers were likely tired after a full day of work at their civilian jobs, which almost certainly limited their ability to grasp and retain course material.⁵⁷⁰ Guard officers, meanwhile, often could not attend mid-level and senior staff courses due to their civilian work commitments, thereby undermining their ability to learn how to plan and execute training programs.⁵⁷¹

War Department efforts to appoint senior officers from the active army as trainers within guard units helped mitigate some of these problems. Colonel George Marshall, while serving as a senior trainer for the NG, planned and evaluated extensive in-depth command post and field training exercises for the Illinois National Guard between 1933 and 1936.⁵⁷² One guard officer was so pleased with the training that he wrote to Marshall in August 1934, telling him “We have been attending

⁵⁶⁹ COL Clifford Early to COL George Marshall, January 22, 1936, in George Marshall Papers, Box 2, 2/26: January 1936, George Marshall Library.

⁵⁷⁰ Ibid.

⁵⁷¹ Marshall to McNair, August 16, 1939, in George Marshall Papers, Box 76, 76/28: McNair Correspondence, George Marshall Library; The Papers of George Catlett Marshall, ed. Larry I. Bland, Sharon Ritenour Stevens, and Clarence E. Wunderlin, Jr. (Lexington, Va.: The George C. Marshall Foundation, 1981–). Electronic version based on The Papers of George Catlett Marshall, vol. 2, “We Cannot Delay,” July 1, 1939–December 6, 1941 (Baltimore and London: The Johns Hopkins University Press, 1986), 181–183.

⁵⁷² COL Marshall to BG Frank Bolles, January 02, 1934, in George Marshall Papers, Box 1, 1/16, January 1934, George Marshall Library.

[annual training] for eleven years and it is the honest opinion of all concerned that we got more this year than in any previous camp.”⁵⁷³ But many did not receive such support due to personnel shortages and budgetary constraints.⁵⁷⁴

In short, NG units simply lacked the time and resources to learn—let alone master—the intricacies of the U.S. Army’s rapidly changing tactical doctrine and the new technologies that it was fielding in the latter half of the 1930s. The effects of these shortcomings became apparent during WWII.

Section 4: World War II

The entire U.S. Army was unprepared for WWII. No U.S. officer—active or guard—had experience commanding a division-sized formation or above in combat.⁵⁷⁵ Worse, as the Secretary of War reported in 1941, “...total [U.S.] military forces [amounted] only to a slightly larger number of soldiers than were contained in the armies of Belgium and Holland at the time when they were overthrown in a few days by the might of Germany.”⁵⁷⁶ And the tiny active army was stretched thinly across the globe garrisoning bases and outposts.⁵⁷⁷

⁵⁷³ Singleton to COL Marshall, March 01, 1934, in George Marshall Papers, Box 1, 1/20: March 1934, George Marshall Library; COL Marshall to CG 6th Corps, September 27, 1934, in George Marshall Papers, Box 1, 1/28: September 1934, George Marshall Library.

⁵⁷⁴ MAJ AD Goudreau to COL Marshall, August 25, 1934, in George Marshall Papers, Box 1, 1/27: August 1934, George Marshall Library.

⁵⁷⁵ U.S. Army Center of Military History, *American Military History Volume II*, 61.

⁵⁷⁶ War Department, *Annual Report 1941*, 6.

⁵⁷⁷ *Ibid.*, 6.

Although inexperienced and outnumbered, the United States had a solid foundation from which to build an effective military. U.S. industrial might and national income dwarfed that of Germany and Japan, enabling it to quickly grow and equip a large and well-equipped army.⁵⁷⁸ And it had a generation of officers in the active army and, to a far lesser extent, in the NG who had a robust military education gained from the army's burgeoning school system.⁵⁷⁹ These officers, as other historians have shown, used that training and education to build and deploy an effective, expeditionary army out of a collection of undertrained active soldiers, guardsmen, reservists, and draftees.⁵⁸⁰

Such efforts accelerated with President Roosevelt's limited readiness campaign that began in 1939 as hopes for peace in Europe were dashed by German expansionism and as threats to U.S. interests from Japan grew in the Pacific. Between 1939 and 1941, the Roosevelt Administration and Congress increased defense spending from \$500 million to \$3.7 billion annually.⁵⁸¹ Roosevelt and Congress also authorized the first peacetime draft in September 1940, enabling the army to grow to 1.2 million men by the summer of 1941.⁵⁸² With that additional funding and more personnel, the army stood up new division, corps, and army-level

⁵⁷⁸ Kennedy, *The Rise and Fall of Great Powers*, 332.

⁵⁷⁹ Coffman, *The Regulars*, 289.

⁵⁸⁰ Ibid.

⁵⁸¹ Ibid., 374.

⁵⁸² Doubler, *Civilian in Peace, Soldier in War*, 197.

commands. Additionally, it could conduct more extensive peacetime exercises to test and refine new doctrinal concepts and equipment.⁵⁸³

The NG underwent significant changes as it prepared for war between 1939 and 1941. Those changes began with the President's signing of Executive Order No. 8244, which authorized "the increase, as quickly as possible, in the enlisted strength of the existing active units of the National Guard to 235,000 men..."⁵⁸⁴ And as defense spending rose, the NG could afford to increase its training days from 48 per year to 60, plus authorization for seven days of supplementary training.⁵⁸⁵ Some units, like the 29th Infantry Division, conducted expanded three-week annual trainings, as opposed to the normal two week period.⁵⁸⁶ More funding also enabled the guard to nearly double the number of guardsmen attending army schools by 1941.⁵⁸⁷ For those who could not attend schools, some corps areas established special staff training programs, while others were able to take advantage of new correspondence courses to study from home.⁵⁸⁸ Select officers also had opportunities to embed with active units in corps and army-level exercises, likely improving their

⁵⁸³ U.S. Army Center of Military History, *American Military History Volume II*, 72.

⁵⁸⁴ CNGB, *Annual Report 1941*, 14.

⁵⁸⁵ CNGB, *Annual Report 1940*, 7; Weaver, *Guard Wars*, 41.

⁵⁸⁶ Joseph Balkoski, *Beyond the Beachhead: The 29th Infantry Division in Normandy* (New York: Dell Books, 1989), 20.

⁵⁸⁷ CNGB, *Annual Report 1941*, 8, 67.

⁵⁸⁸ Weaver, *Guard Wars*, 43-44.

understanding of higher level tactical concepts and familiarity with changing army doctrine and technology.⁵⁸⁹

The fall of France in the summer of 1940 prompted President Roosevelt to activate the NG for federal service under Executive Order No. 8530 to accelerate preparations for war and to increase the overall numerical strength of the active military.⁵⁹⁰ NG units began activation on 31 August 1940.⁵⁹¹ In total, around 300,000 guardsmen were activated in increments between 16 September 1940 and 23 June 1941, as shown in Table 2.7.⁵⁹² The War Department could not activate all units at once because of insufficient housing and training facilities.⁵⁹³

Month	Division	Percent Selective Service (Draftees)
January 1941	26 th	56
October 1940	27 th	40
February 1941	28 th	-
February 1941	29 th	56
September 1940	30 th	33
November 1940	31 st	40
October 1940	32 nd	46
March 1941	33 rd	34
February 1941	34 th	39
December 1940	35 th	39
November 1940	36 th	39
October 1940	37 th	58
January 1941	38 th	57
March 1941	40 th	37
September 1940	41 st	38
February 1941	43 rd	43
September 1940	44 th	36

⁵⁸⁹ CNGB, *Annual Report 1940*, 23.

⁵⁹⁰ CNGB, *Annual Report 1941*, 20; Weaver, *Guard Wars*, 22, 34.

⁵⁹¹ Ibid.

⁵⁹² CNGB, *Annual Report 1947*, 26.

⁵⁹³ CNGB, *Annual Report 1941*, 26.

⁵⁹⁴ CNGB, *Annual Report 1947*, 26.

September 1940	45 th	37
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During that first year of federal service, the NG faced multiple challenges. For one, many guardsmen resented the year-long activation, leading to declining morale.⁵⁹⁵ One Pennsylvania guardsmen, for example, complained to a Pittsburgh newspaper, asking “Why should we give up our civilian jobs while the rest of the country stays home and reaps the harvest of good wages?”⁵⁹⁶ War Department internal surveys also found morale was extremely low across the NG.⁵⁹⁷ Alarmed, General Marshall had the surveys classified at the secret level.⁵⁹⁸

And even though they were on full-time orders, guard units still struggled with collective training. Constrained by a one-year limit on active service, the army could not advance guard units to larger-scale maneuvers at the brigade and division-level.⁵⁹⁹ Training conducted below the brigade level was of uneven quality because few guard officers and NCOs “had adequate previous experience and training” to organize and supervise such training.⁶⁰⁰ It was, as one senior officer from the time

⁵⁹⁵ Despite popular myths, many American men resisted and resented service in the lead-up to and during WWII. For more on this topic see, Amy Rutenberg, *Rough Draft: Cold War Military Manpower Policy and the Origins of the Vietnam-Era Draft Resistance* (Cornell: Cornell University Press, 2019).

⁵⁹⁶ Weaver, *Guard Wars*, 17.

⁵⁹⁷ Ibid., 26.

⁵⁹⁸ Ibid.

⁵⁹⁹ Critique of the Second Phase of GHQ-Directed Maneuvers, November 1941, 2, in Lesley McNair Papers, Box 2, Unnumbered folder: Speeches and Writings (1941-42), Library of Congress; CNGB, *Annual Report 1941*, 29.

⁶⁰⁰ Critique of the Second Phase of GHQ-Directed Maneuvers, November 1941, 3, in Lesley McNair Papers, Box 2, Unnumbered folder: Speeches and Writings (1941-42), Library of Congress; Bradley, *A General's Life*, pp. 91, 96.

noted, like “the blind leading the blind.”⁶⁰¹ Things improved somewhat after August 1941 when President Roosevelt extended mobilization for an additional six months, enabling guard divisions to participate in maneuvers supervised by active duty officers in Louisiana and the Carolinas during the fall of 1941.⁶⁰²

That year and a half of federal service also provided the NG an opportunity to reorganize. Such reorganization was important because many guard units were “short in much individual equipment or...[were] in bad shape,” as the Chief of the National Guard Bureau wrote in a letter to a fellow guard general in April 1941.⁶⁰³ Thus, beginning in the fall of 1940, guard divisions began receiving new shipments of equipment, such as the M1 Garand rifle.⁶⁰⁴ And on 06 December 1940, the NG received orders from the War Department to re-organize its infantry divisions to align with the triangular concept—a reorganization that continued into early 1942.⁶⁰⁵ The re-organization, which downsized the division from four to three regiments, produced eighteen separate infantry regiments that lacked a parent division.⁶⁰⁶ The army

⁶⁰¹ Peter Mansoor, *The GI Offensive in Europe: The Triumph of American Infantry Divisions* (Lawrence: University of Kansas Press, 1999), 19.

⁶⁰² Christopher Gabel, *The U.S. Army GHQ Maneuvers of 1941* (Washington, DC: U.S. Army Center of Military History, 1991), 197-202.

⁶⁰³ CNGB John F. Williams to MG Ellard Walsh, April 01, 1941, in Ellard Walsh Papers, Box 3, Unnumbered folder: John F. Williams (APR 41-JAN-43), NGAUS Library.

⁶⁰⁴ Anthony Leviero, “Fort Dix Soldiers Get Modern Arms,” *New York Times*, 09 October 1940, 14.

⁶⁰⁵ CNGB, *Annual Report 1946*, 26; CNGB, *Annual Report 1941*, 25.

⁶⁰⁶ Doubler, *Civilian in Peace, Soldier in War*, 203.

eventually assigned some of those excess regiments to active or draftee divisions, while the majority performed routine security missions across the globe.⁶⁰⁷

The composition of the guard changed considerably during mobilization. To bring guard divisions to full strength, the War Department infused their ranks with thousands of draftees and new volunteers. Thousands of guardsmen also left the service because of restrictions put in place by the Selective Service Act of 1940. That act called for the drafting of men over the age of 21 and only those men who did not have dependents and did not have critical jobs in agriculture or industrial production.⁶⁰⁸ However, it also meant that the NG could not force its own soldiers who did not meet these requirements to stay on federal orders. Consequently, the NG lost around 60,000 men—about 25 percent of its pre-war strength—due to the fact they were under the age of 21, because of physical fitness issues, or because they had to take care of dependents.⁶⁰⁹

Given these losses, NG divisions transformed into hybrid organizations with a near even balance of guardsmen and brand-new soldiers (draftees and volunteers). In some cases, draftees vastly outnumbered guardsman, as was the case for the 175th Infantry Regiment of the Maryland National Guard in which draftees filled 2,000 of its 3,500 billets.⁶¹⁰ Distinctions between broke down further in September 1941 when Secretary of War Henry Stimson issued the “One Army” policy, authoring the War

⁶⁰⁷ Ibid.

⁶⁰⁸ Ibid., 197; Rutenberg, Rutenberg, *Rough Draft*, 45-47.

⁶⁰⁹ CNGB, *Annual Report 1941*, 16-17.

⁶¹⁰ Balkoski, *Beyond the Beachhead*, 24.

Department to transfer guardsmen to any unit, including outside of their home state or to active duty formations.⁶¹¹

The One Army policy also authorized the army to replace guard officers with active duty ones, setting the stage for a bitter conflict. Leading the charge to replace guard officers was Lesley McNair, now a Lieutenant General, who commanded U.S. Army Ground Forces (AGF) and was responsible for training all army units in the United States during mobilization.⁶¹² McNair, who placed a heavy emphasis on developing high quality soldiers and officers who could master the intricacies of modern warfare, detested the NG due to its poor state of readiness.⁶¹³ He later wrote, “One of the great lessons of the present war is that the National Guard, as organized before the war, contributed nothing to national defense...The structure of the National Guard was pregnant with disaster for the entire nation.”⁶¹⁴ His disdain for the guard dated back to at least 1917, when he served as an instructor for guardsmen mobilizing for WWI—an experience that led him and his mentor, General Pershing, to question the value of the NG.⁶¹⁵

⁶¹¹ John Norris, “Army to Fuse Guard, Regular Officer Corps,” *The Washington Post*, 19 September 1941, 8.

⁶¹² Mansoor, *The GI Offensive in Europe*, 16-17.

⁶¹³ General Forces of the United States Army, Undated 1941-42, 1-2, in Lesley McNair Papers, Box 2, Unnumbered folder: Speeches and Writings (1941-42), Library of Congress.

⁶¹⁴ Weaver, *Guard Wars*, 6.

⁶¹⁵ Calhoun, *General Lesley J. McNair: Unsung Architect of the U. S. Army*, 83.

Although he wanted to abolish the guard, McNair had no authority to do so.

⁶¹⁶ Instead, he focused on replacing underperforming NG officers from brigade and division-level commands. McNair's poor opinion of guard officers was shared by many other senior officers at the time, including General Marshall.⁶¹⁷ Those opinions rested in part on pre-war experiences working with the guard, as was the case with McNair, but also on recent observations of guard units that struggled during field exercises in 1940 and 1941. Such poor performances prompted McNair to write to Marshall, explaining how, in his estimation, the NG was "built on an unsound foundation in that its officers have had little or no training ..."⁶¹⁸ He recommended that "it would be better to ease Guard units out of the picture as fast as others can be created in their places."⁶¹⁹ As evidence of the guard's poor leadership, McNair provided his assessments of each of the NG's 12 remaining division commanders (six had already been replaced by active officers by October 1941):⁶²⁰

- 26th—Eckfeldt, Mass.—50—live but green; may learn; one of the few promising ones.
- 27th—Haskell—63—should go out for more than age.
- 28th—Martin, Pa.—62—no question but that he should go.
- 29th—Reckord, Md.—62—good administrator but should go.
- 30th—Russell, Ga.—52—pleasing; leader of a sort; but not a military comdr. Should go sooner or later.
- 31st—Persons, Ala.—53—comds effectively; question is whether he has sufficient military background; one of the most promising ones.

⁶¹⁶ Balkoski, *Beyond the Beachhead*, 27.

⁶¹⁷ Conference in the Office of the Chief of Staff, February 08, 1941, in George Marshall Papers, Box 61, 61/13: Civilians (Training Of), 1941, George Marshall Library.

⁶¹⁸ Balkoski, *Beyond the Beachhead*, 27.

⁶¹⁹ *Ibid.*

⁶²⁰ McNair to Marshall, October 07, 1941, in George Marshall Papers, Box 76, 76/31: McNair Correspondence, George Marshall Library.

- 32d—Fish, Wis.—62—fine man; experienced in Nat. Gd., but believed lacking in military knowledge; should go sooner or later, preferably sooner.
- 33d—Lawton, Ill.—57—dubious; performance thus far shows force, but not well directed; military knowledge too limited.
- 37th—Beightler, Ohio—49—One of the best Nat. Gd. comdrs if he stays with the job.
- 41st—White, Ore.—61—Strong comdr, but military knowledge none too full. However, one of the best.
- 44th—Powell, N.J.—48—Incompetent; Frendenall said would be reclassified.
- 45th—Key, Okla.—52—Forceful; impressive; and that’s about all. Dubious for the long pull.⁶²¹

In short, McNair, had little confidence in all but one—Beightler of Ohio—of the NG’s remaining division commanders.

Despite McNair’s criticisms, General Marshall resisted calls to scrap the NG or to remove all its leaders from key positions. Marshall, who had served as a senior trainer for the Illinois guard in the mid-1930s, admired guardsmen for their service to their country and hoped they could meet higher standards if given opportunities to train properly.⁶²² He also understood it was impractical to sideline the guard due to the political storm it would generate in Congress and because the army simply lacked enough active duty or newly commissioned officers to replace them.⁶²³

But reports of poor readiness levels and poor professionalism in NG units angered Marshall.⁶²⁴ In fact, in July 1941, he wrote a letter to guard division commanders warning that the standards of NG divisions “appears to be too low”

⁶²¹ Ibid.

⁶²² Weaver, *Guard Wars*, 11, 13.

⁶²³ Bradley and Blair, *A General’s Life*, 109; Conference in the Office of the Chief of Staff, February 08, 1941, in George Marshall Papers, Box 61, 61/13: Civilians (Training Of), 1941, George Marshall Library.

⁶²⁴ Weaver, *Guard Wars*, 14.

based on reports he was receiving from multiple sources.⁶²⁵ The reason for this, in his estimation, was that “in the less advanced divisions [of the NG]...younger officers have not had enough tactical training or general education to enable them to conduct instruction in an efficient or at least in an interesting manner...”⁶²⁶ Additionally, General McNair had informed Marshall that “the basic training of some units had been carried out so ineffectively as to necessitate repetition.”⁶²⁷ These deficiencies, Marshall warned, had to be remedied immediately, even if it meant replacing guard officers.⁶²⁸

Empowered to remove poor performing guard officers, McNair purged the leadership of guard divisions and regiments. In fact, only 2 of the 18 NG division commanders serving in 1940 took their units into combat.⁶²⁹

The purge also extended below the division-level. Rarely did a NG officer raise above the rank of colonel or command above the battalion-level.⁶³⁰ In fact, the active army may have decided to replace some regimental commanders without evaluating them. Upon assuming command of the 36th Infantry Division of the Texas NG, Brigadier General Fred Walker, an active duty officer, received orders from the

⁶²⁵ George Marshall to Ellard Walsh, July 30, 1941, in Ellard Walsh Papers, Box 24, Folder 2: Correspondence Files of MG Ellard Walsh, 1940-1958, NGAUS Library.

⁶²⁶ Ibid.

⁶²⁷ Ibid.

⁶²⁸ Ibid.

⁶²⁹ Doubler, *Civilian in Peace, Soldier in War*, 199; Mansoor, *The GI Offensive in Europe*, 59.

⁶³⁰ Ibid. 57.

War Department to remove guard officers from regimental command positions.⁶³¹

Walker reluctantly complied and allowed his three subordinates regimental commanders and chief of staff to resign to avoid embarrassment.⁶³² A different unit may have even received a directive from its higher headquarters to replace all NG officers with active duty ones, as one senior guard officer recalled after the war.⁶³³

Guardsmen believed McNair unfairly targeted them. The CNGB complained to fellow guard leaders at the time that Marshall was “constantly being misled and misinformed” about the NG by members of the active army or civilians at the War Department.⁶³⁴ Several other top guard officers believed that “the cards” were “definitely stacked [against the guard], and the powers that be have made up their minds that no National Guard officer will be permitted to take a division into battle.”⁶³⁵ A Colonel from the 38th Division (Indiana NG) also complained how McNair’s replacement policies was sending good officers “who had given their all [home] embittered, heart-broken, and discarded...”⁶³⁶

⁶³¹ Fred Walker, *From Texas to Rome with General Fred L. Walker: Fighting World War II and the Italian Campaign with the 36th Infantry Division, as seen through the Eyes of its Commanding General* (El Dorado Hills: Savas Publishing, 2014 [1969]), location 409 (5%) [Kindle e-book].

⁶³² Ibid., location 677 (8%) [Kindle e-book].

⁶³³ Presentation to the Army War College by MG EA Walsh, 05 February 1953, in Ellard Walsh Papers, Box 7, Folder 4: Department of the Army (General Correspondence), NGAUS Library,

⁶³⁴ CNGB John F. Williams to MG George E. Leach, January 24, 1942, in Ellard Walsh Papers, Box 24, Folder 2: Correspondence Files of MG Ellard Walsh, 1940-1958, NGAUS Library.

⁶³⁵ Milton Reckord to Ellard Walsh, August 26, 1943” in Ellard Walsh Papers, Box 3, Unnumbered Folder: Select Correspondence of MG Ellard Walsh (42-75), NGAUS Library.

⁶³⁶ CNGB John F. Williams to MG George E. Leach, January 24, 1942, in Ellard Walsh Papers, Box 24, Folder 2: Correspondence Files of MG Ellard Walsh, 1940-1958, NGAUS Library.

To fight back, Major General Milton Reckord, the influential Adjutant General of Maryland, mounted a letter writing campaign in 1941 and 1942. The campaign aimed to gather support from other NG leaders to resist War Department efforts to alter the character of guard units by assigning them active duty soldiers and draftees.⁶³⁷ And Reckord found some support with state governors. In November 1941, the governor of Texas tried to pressure the War Department to keep guard officers in regimental command in the 36th Division.⁶³⁸ But the War Department refused; and state leaders could not stop the army from removing and reassigning personnel, as guardsmen activated for federal service no longer fell under their command. Arguments between the guard and the War Department, nevertheless, persisted, even after the U.S. entered the war following the Japanese attack on Pearl Harbor in December 1941.

Initially, the War Department aimed to have army divisions deployable by the end of 1942.⁶³⁹ But the chaos of expanding and modernizing the army made that goal unrealistic. Personnel turbulence was particularly problematic, as the army removed soldiers and officers from units to send them to fill vacancies elsewhere or to attend schools.⁶⁴⁰ As Major General Walker of the 36th Division, recalled in his diaries: “It seems that everybody is either going to school, at school, returning from school, or being transferred away permanently. This keeps us in a state of confusion and

⁶³⁷ Weaver, *Guard Wars*, 10-11.

⁶³⁸ Walker, *From Texas to Rome*, location 988 (12%) [Kindle e-book].

⁶³⁹ Mansoor, *The GI Offensive in Europe*, 21.

⁶⁴⁰ Ibid. 26.

uncertainty, and makes it impossible to carry on unit tactical training.”⁶⁴¹ Making matters worse, expanded draft laws in 1942 filled NG divisions with new, untrained personnel, forcing them to devote considerable time to individual training and less on collective tasks.⁶⁴²

Despite these challenges, the NG and active army began deploying some divisions overseas in early to mid-1942 to participate in operations in the Pacific and to prepare for the invasion of North Africa. However, units continued to confront training challenges during the deployment process. Some, for instance, received new draftees and equipment all the way up to the port of embarkation.⁶⁴³ Once overseas, units tried to find opportunities to conduct collective training in quiet sectors for a few weeks.⁶⁴⁴ But that did not always happen because in some areas, like Great Britain, they lacked adequate space for large unit maneuvers.⁶⁴⁵ Thus, unlike WWI, the U.S. Army did not have the opportunity to conduct lengthy, large-scale training in theater.

⁶⁴¹ Walker, *From Texas to Rome*, location 1207 (15%).

⁶⁴² Millett, Maslowski, and Feis, *For the Common Defense*, 381.

⁶⁴³ Mansoor, *The GI Offensive in Europe*, 29.

⁶⁴⁴ Ibid.

⁶⁴⁵ Ibid., 50.

Table 2.8: National Guard Combat Divisions in WWII ⁶⁴⁶					
Division	Theater	Activated	Deploys Overseas	Enters Battle	Time from Activation to Combat
26	Europe	16 JAN 41	27 AUG 44	07 SEP 44	3 Years, 8 Months
27	Pacific	15 OCT 40	10 MAR 42	17 JUN 44	3 Years, 8 Months
28	Europe	17 FEB 41	18 OCT 43	22 JUL 44	3 Years, 5 Months
29	Europe	03 FEB 41	05 OCT 42	06 JUN 44	3 Years, 4 Months
30	Europe	16 SEP 40	11 FEB 44	10 JUN 44	3 Years, 10 Months
31	Pacific	25 NOV 40	12 MAR 44	25 JUN 44	3 Years, 8 Months
32	Pacific	15 OCT 40	22 APR 42	15 SEP 42	1 Year, 11 Months
33	Pacific	05 MAR 41	07 JUL 43	11 MAY 44	3 Years, 2 Months
34	North Africa & Med.	10 FEB 41	12 JAN 42	03 JAN 43	2 Year, 11 Months
35	Europe	23 DEC 40	12 MAY 44	06 JUL 44	3 Years, 8 Months
36	Med. & Europe	25 NOV 40	02 APR 43	13 APR 43	2 Years, 5 Months
37	Pacific	15 OCT 40	26 MAY 42	11 JUN 42	1 Year, 8 Months
38	Pacific	17 JAN 41	3 JAN 44	16 DEC 44	3 Years, 11 Months
40	Pacific	03 MAR 41	23 AUG 42	31 DEC 43	2 Years, 9 Months
41	Pacific	16 SEP 40	19 MAR 42	25 JAN 43	2 Years, 4 Months
42	Europe	14 JUL 43	06 JAN 45	18 JAN 45	1 Year, 6 Months
43	Pacific	24 FEB 41	01 OCT 42	28 FEB 43	2 Years
44	Europe	16 SEP 40	05 SEP 44	15 SEP 44	4 Years
45	Med. & Europe	16 FEB 40	03 JUN 43	22 JUN 43	3 Years, 4 Months

It is difficult to determine how well the guard performed in combat, as reporting from the war did not necessarily distinguish a unit by its affiliation to the NG. Senior guard officers at the time suspected that this was because the War Department was purposely ignoring or misrepresenting the successes of guard

⁶⁴⁶ Shelby Stanton and Weigley Russell F. *World War II Order of Battle: An Encyclopedic Reference to U.S. Army Ground Forces from Battalion through Division, 1939-1946* (Mechanicsburg: Stackpole Books, 2006), 101-134; CNGB, *Annual Report 1946*, 27.

divisions in combat.⁶⁴⁷ But, as discussed, NG divisions that deployed to WWII were guard in name only, as many of their original members who activated between 1940-42 were no longer serving. What is more, much of those divisions' officers had been replaced by active or newly trained officers.

That said, some guard divisions distinguished themselves in combat in the Pacific and European theaters. In the Pacific, the 37th Division along with three other NG divisions—32nd, 40th, and 43rd—served as lead elements for the liberation of the Philippines in 1945.⁶⁴⁸ Meanwhile, the Americal Division—formed from three NG regiments in 1942—fought doggedly at Guadalcanal, earning a Navy Presidential Unit Citation.⁶⁴⁹

But, like their active division counterparts, the NG divisions performed unevenly in their initial battles against veteran-led German forces in North Africa and Italy. As other historians have shown, however, active and NG divisions gradually improved and eventually excelled in combat by 1944, as they gained experience and confidence.⁶⁵⁰ NG divisions, moreover, played leading roles in Allied ground operations. The 45th Division helped lead the Allied landings on Sicily in June 1943.⁶⁵¹ Three months later, the 36th Division was at the forefront of the invasion of

⁶⁴⁷ CNGB John F. Williams to MG Ellard Walsh, November 24, 1943, in Ellard Walsh Papers, Box 3, Unnumbered Folder: John F. Williams (APR 41-JAN43) NGAUS Library.

⁶⁴⁸ Doubler, *Civilian in Peace, Soldier in War*, 210.

⁶⁴⁹ *Ibid.*, 204.

⁶⁵⁰ See works of Pete Mansoor, Michael Doubler, Trevor Dupuy, and John Sloan Brown as discussed in Mansoor, *The GI Offensive in Europe*, 5-9, 13, 14.

⁶⁵¹ Doubler, *Civilian in Peace, Soldier in War*, 205.

Italy and would later help liberate Rome along with the 45th Division.⁶⁵² The 29th Infantry Division also landed in the first waves of the Normandy invasion at Omaha Beach; and it, along with several other guard divisions, participated in the subsequent campaigns to liberate France, breach the German frontiers, and occupy Germany.⁶⁵³

Table 2.9: Combat Losses of Army's Most Heavily Employed Divisions in WWII ⁶⁵⁴			
Active Division	Losses	NG Divisions	Losses
4	22,429	34	20,906
9	19,889	29	20,754
1	18,617	35	15,953
2	16,127	28	13,951
3	15,319	36	10,302
8	13,791	26	10,243
5	11,813	45	9,685
7	7,977	32	8,727
6	4,910	-	-
Total strength per division was around 15,000 Personnel			

These successes came at a high cost. On average, guard divisions lost around 14,000 personnel (125,630 losses total)—rates that were similar to those of active duty divisions.⁶⁵⁵ And some divisions suffered nearly 100 percent or more losses, as shown in Table 2.9.⁶⁵⁶

On the surface, these high loss rates would suggest that the NG and active duty divisions performed poorly. But, as historian Peter Mansoor has shown, the losses reflected the fact that the U.S. Army did not have enough combat divisions to rotate divisions out of combat to rest and refit.⁶⁵⁷ Instead, they remained on the line,

⁶⁵² Ibid.

⁶⁵³ Ibid., 205-06.

⁶⁵⁴ CNGB, *Annual Report 1946*, 31.

⁶⁵⁵ Doubler, *Civilian in Peace, Soldier in War*, 207.

⁶⁵⁶ CNGB, *Annual Report 1946*, 31.

⁶⁵⁷ Mansoor, *The GI Offensive in Europe*, 11.

receiving individual replacements from depots in theater or back in the United States. This was the case because the War Department made a gamble only to mobilize eighty-nine divisions to ensure that U.S. industry and farms had the necessary personnel to remain fully staffed and productive.⁶⁵⁸ Ultimately, the gamble worked, but divisions, in turn, could not rotate out of combat, leading to the high casualty rates.

In summary, the NG proved capable as serving as the first line combat reserve to the U.S. Army during WWII. And it was able to do so because the War Department had the time and resources to restructure guard divisions in such a way that they were nearly indistinguishable from active units. It had that time because Roosevelt and Marshall had started the process for bringing guard units up to a higher standard as early as 1940 by placing them on full-time orders, infusing them with veteran leadership, and intensifying their training. And even after the U.S. entered the war, most guard units had additional months—or even years—to train before entering combat. Massive increases in defense spending and military production and the initiation of the draft also allowed guard units to address longstanding personnel and equipment shortfalls. Following WWII, the War Department essentially kept this formula in place for building guard readiness.

Section 5: The National Guard at the Dawn of the Cold War

In the decade following WWII, the NG arguably reached its highest level of readiness relative to the active army. During that period, combat veterans from

⁶⁵⁸ Ibid., 10-11.

WWII led many guard formations, which maintained a relatively intensive peacetime training programs compared to pre-war standards. At the same time, the guard enjoyed strong support from President Harry S. Truman, a former Missouri guardsman, whose administration worked to bring the guard up to full strength and improve its position within U.S. national security strategy.

Truman had big plans for the guard following WWII. In an October 1945 address to Congress, he laid out the structure of the post-war U.S. Army, which was to consist of “a comparatively small Regular Army, Navy and Marine Corps” and a “greatly strengthened” National Guard and Organized Reserve...”⁶⁵⁹ To strengthen the guard, the Truman administration set its peacetime strength at 425,000.⁶⁶⁰ And three years later, Congress provided the War Department and the President the authority to activate guardsmen and reservists for up to 21 months of active service.⁶⁶¹ During this period, the ARNG split into two organizations—the Army National Guard (ARNG) and the Air National Guard (ANG)—both of which continued to report to their respective state governors and the CNGB when not on federal orders.

Truman also sought drastic changes to U.S. reserve service through a universal military training (UMT) program. Under such a program, the Truman

⁶⁵⁹ Steven Rearden, *History of the Office of the Secretary of Defense: The Formative Years, 1947-1950* (Washington, DC: Government Printing Office, 1984), 14; Harry S. Truman Address Before a Joint Session of the Congress on Universal Military Training, 23 October 1945, available at <https://www.trumanlibrary.org/publicpapers/index.php?pid=183> (accessed 10 November 2019).

⁶⁶⁰ Doubler, *Civilian in Peace, Soldier in War*, 224.

⁶⁶¹ Doris Condit, *History of the Office of the Secretary of Defense, Vol. 2: The Test of War, 1950-1953* (Washington, DC: Government Printing Office, 1988), 31.

Administration envisioned all 18-year-old men spending a year undergoing military training (about 850,000 men per year).⁶⁶² After that year, the War Department would place these men into a general reserve, where they could be recalled in an emergency.⁶⁶³

The ARNG supported the UMT plan to boost recruitment. Guard leadership calculated that many would opt out of UMT and join the NG.⁶⁶⁴ Such a choice was appealing because joining the guard only required a soldier to drill about eight hours a month and two weeks in the summer. UMT, in contrast, required a year of full-time service.

Congress and the American public did not share the President's enthusiasm for UMT, despite attempts by senior cabinet officials, including Secretary of State George Marshall, to explain the importance of the program to military readiness.⁶⁶⁵ Conservatives in Congress balked at the financial costs, which was estimated to be

⁶⁶² U.S. Army Center of Military History, *American Military History Volume II: The United States Army in a Global Era, 1917-2008*, 214; Bradley, *A General's Life*, 482; Universal Military Training. Digest of H.R. 4278 (a Bill to Enact the National Security Training Act of 1947) as Reported to the House of Representatives. Letters from Secretary of Defense, Dated Feb. 9 and Feb. 10, 1948, to Chairman, Senate Armed Services Committee, Discussing Universal Military Training Costs. Letter from Secretary of Defense, Dated Feb. 26, 1948, to Chairman, Senate Armed Services Committee, Discussing Costs of Reserves, 1, available at: <https://congressional-proquest-com.proxy-um.researchport.umd.edu/congressional/docview/t21.d22.cmp-1948-sas-0004?accountid=14696> (accessed 03 March 2018).

⁶⁶³ Rearden, *History of the Office of the Secretary of Defense: The Formative Years, 1947-1950*, 14; Universal Military Training, Digest of H.R. 4278, 1.

⁶⁶⁴ CNGB *Annual Report 1947*, 113.

⁶⁶⁵ Marshall Testimony of March 17, 1948, George Marshall Foundation, 4-5, available at: <http://marshallfoundation.org/library/digital-archive/universal-military-training/> (accessed 10 November 2019).

around \$1.75 billion a year in 1948.⁶⁶⁶ Some congressmen even refused to listen to debates on UMT.⁶⁶⁷ Others worried it was an overextension of the federal government's powers.⁶⁶⁸

Truman, who continued to push for UMT until the end of his presidency, decided instead to ask Congress in 1948 to re-authorize selective service, in what would be the first peacetime draft in U.S. history.⁶⁶⁹ Congress agreed, as tensions were rising between the United States and the Soviet Union, passing the Selective Service Act on 19 June 1948 to ensure that “an adequate armed strength [was] maintained to insure the security” of the United States.⁶⁷⁰

The Selective Service Act allowed the federal government to draft men between the ages of 19 and 26; although it allowed deferments for college students, those with physical and mental disabilities, and veterans of WWII.⁶⁷¹ The act also allowed men to avoid the draft by volunteering for one year of active duty, after which they would be discharged into the reserves.⁶⁷² Once in the reserves, they would complete no more than one month of annual refresher training until they

⁶⁶⁶ Doubler, *Civilian in Peace, Soldier in War*, 228; Universal Military Training, Digest of H.R. 4278, 1

⁶⁶⁷ Bradley, *A General's Life*, 482.

⁶⁶⁸ Derthick, *The National Guard in Politics*, 101.

⁶⁶⁹ Bradley, *A General's Life*, 482-83.

⁶⁷⁰ Doubler, *Civilian in Peace, Soldier in War*, 228; Selective Service Act of 1948, available at https://www.loc.gov/rr/frd/Military_Law/pdf/act-1948.pdf (accessed 09 February 2019).

⁶⁷¹ Doubler, *Civilian in Peace, Soldier in War*, 228; U.S. Congress, *Selective Service Act of 1948*, 6.

⁶⁷² Hill, *The Minute Man in Peace and War*, 502.

reached age 24.⁶⁷³ Volunteering was appealing because if drafted, one had to spend 21 consecutive months on active duty and could be recalled to active service for an additional five years.⁶⁷⁴ Thus, many men opted to volunteer, providing the army a huge recruiting boost.⁶⁷⁵

As Congress and the President debated UMT and the Selective Service, the ARNG faced renewed efforts to replace or marginalize it, generating a period of “cutthroat competition” between the active duty army and the NG.⁶⁷⁶ Many active officers felt that the NG did not live up to expectations during WWII because of its struggles during mobilization.⁶⁷⁷ And some, like General Bradley, worried that the NG was ill-suited for a potential fight against the Soviet Union. As he explained in his memoirs, “With our very survival seemingly at stake in the Cold War, I for one could not continue to support the fiction that the National Guard could be relied upon for anything more than local riot control.”⁶⁷⁸ Leslie McNair may have been dead; but his distrust of the ARNG was alive and well among current and former active duty officers like Bradley who viewed the guard as “an expensive boondoggle.”⁶⁷⁹

⁶⁷³ Ibid.

⁶⁷⁴ Ibid.; U.S. Congress, *Selective Service Act of 1948*, 3.

⁶⁷⁵ Hill, *The Minute Man in Peace and War*, 502.

⁶⁷⁶ Eisenhower to JL Devers, 28 April 1947, in Ellard Walsh Papers, Box 24, Folder 2: Correspondence Files of MG Ellard Walsh, 1940-1958, NGAUS Library; Additional Questions for MG Milton A. Reckord and MG Walsh, Undated 1948, 18, in Ellard Walsh Papers, Box 24, Folder 2: Correspondence Files of MG Ellard Walsh, 1940-1958, NGAUS Library.

⁶⁷⁷ Bradley, *A General's Life*, 483; Eisenhower to JL Devers, 28 April 1947, in Ellard Walsh Papers, Box 24, Folder 2: Correspondence Files of MG Ellard Walsh, 1940-1958, NGAUS Library.

⁶⁷⁸ Bradley, *A General's Life*, 483.

⁶⁷⁹ Ibid.

Bradley's concerns were likely shared by senior leaders in the National Military Establishment (NME)—the new name for the War Department in 1947 (renamed the Department of Defense in 1949). James Forrestal, who became the first Secretary of Defense in September in 1947, convened a special board of active duty officers and top civilian defense officials led by Assistant Secretary of the Army Gordon Gray to examine reserve policies for all the services.⁶⁸⁰ Nine months later, the board concluded that NME should federalize the ARNG and merge it with the Organized Reserve, consolidating the reserve component into a single entity under federal command.⁶⁸¹

The board made this decision for three reasons. First, it wanted to improve the responsiveness of the ARNG for federal missions. As of 1948, the military could only mobilize the guard if Congress declared a national emergency.⁶⁸² Second, transferring ARNG units from state to federal control took too long in the board's estimation, due to rules governing the transfer of state employees and equipment to federal command.⁶⁸³ And, third, by placing the ARNG under federal control the military could improve its readiness standards by allowing active officers to oversee training and administration.⁶⁸⁴

⁶⁸⁰ Doubler, *Civilian in Peace, Soldier in War*, 229; John Norris, "Blow dealt federalized guard plan," *The Washington Post*, 10 December 1948, 1.

⁶⁸¹ Rearden, *History of the Office of the Secretary of Defense: The Formative Years, 1947-1950*, 106.

⁶⁸² Staff Writers, "Transfer of guard to army advocated," *The Washington Post*, 11 August 1948, 9.

⁶⁸³ *Ibid.*

⁶⁸⁴ Bradley, *A General's Life*, 483; Doubler, *Civilian in Peace, Soldier in War*, 229.

The board's recommendations, as CSA Bradley anticipated, faced immediate opposition from the states and guard leaders.⁶⁸⁵ Governors from all states, except one, disagreed with the idea of abolishing the ARNG.⁶⁸⁶ Meanwhile, senior ARNG officers, who had witnessed previous attempts to federalize the NG, were outraged by the recommendations.⁶⁸⁷ NGAUS, led by Major General Ellard Walsh of Minnesota, derided the proposal as "continuing efforts" of the "professional soldier and War Department" to discredit the guard.⁶⁸⁸ Vowing to fight the plan "at every turn", NGAUS appealed to Congress in 1948.⁶⁸⁹

Before Congress, NGAUS leaders made three main arguments in defense of the NG. First, they claimed that the NG trained more than it was given credit for. Active duty officers claimed that guardsmen trained only about 200 hours a year; but NGAUS representatives argued that the average guard leader trained about 600 hours annually because they had to take care of various administrative and leadership tasks outside of paid drill periods.⁶⁹⁰ Second, they charged that the active army did not understand the guard because of "false indoctrination in the United States Military

⁶⁸⁵ Bradley, *A General's Life*, 483; Oral History Interview with Gordon Gray, 18 June 1973, 25.

⁶⁸⁶ Oral History Interview with Gordon Gray, 18 June 1973, 25.

⁶⁸⁷ Derthick, *The National Guard in Politics*, 77-78; Staff Writers, "Ex-general of guard hits army talk," *The Washington Post*, 02 January 1949.

⁶⁸⁸ Staff Writers, "Truman Aide Accused of Arrogance," *The Washington Post*, 04 January 1948, M5.

⁶⁸⁹ Derthick, *The National Guard in Politics*, 81; Staff Writers, "Guard Rebels At Plan for Absorption into Army," *The Washington Post*, 12 August 1948, 1.

⁶⁹⁰ Additional Questions for MG Milton A. Reckord and MG Walsh, Undated 1948, 18, in Ellard Walsh Papers, Box 24, Folder 2: Correspondence Files of MG Ellard Walsh, 1940-1958, NGAUS Library.

Academy” that made them ignorant of U.S. military policy that required the guard to be a state-led force.⁶⁹¹ And, third, they asserted that any effort to make the guard a federal force was an example of federal overreach into state affairs.⁶⁹² Ultimately, these arguments resonated with conservative Republicans and southern Democrats who felt that the active army and federal policymakers were infringing on states’ rights.⁶⁹³

Faced with rising public criticism, Secretary of Defense Forrestal backed away from the Grey Board’s findings.⁶⁹⁴ Truman also refused to comment on the findings publicly, fearing it could hurt his re-election bid.⁶⁹⁵ Two years later, George Marshall—now the Secretary of Defense—revisited the issue of reserve reform. And after a one-year study, Marshall put forth a proposal, which President Truman accepted, that kept the guard a dual state-federal force.⁶⁹⁶ Marshall, however, called upon guardsmen to improve their training standards.⁶⁹⁷

But the guard had a limited ability to do so because of time constraints. The post-war guard retained a training schedule consisting of 48 two-hour drills a year

⁶⁹¹ Ibid., 15.

⁶⁹² Ibid., 21.

⁶⁹³ Derthick, *The National Guard in Politics*, 81; Staff Writers, “Guard Rebels At Plan for Absorption into Army,” *The Washington Post*, 12 August 1948.

⁶⁹⁴ Oral History Interview with Gordon Gray, 18 June 1973, 24.

⁶⁹⁵ Rearden, *History of the Office of the Secretary of Defense: The Formative Years, 1947-1950*, 106-07.

⁶⁹⁶ Condit, *History of the Office of the Secretary of Defense, Vol. 2: The Test of War, 1950-1953* (Washington, DC: Government Printing Office, 1988), 492.

⁶⁹⁷ Staff Writers, “Guard Change Held Essential by Marshall,” *The Washington Post*, 25 October 1950, 1.

and 15 days of annual training in the summer.⁶⁹⁸ Units, however, spent much of that time training newly assigned soldiers, as guardsmen at this point still did not attend a basic training course prior to unit assignment.⁶⁹⁹ Additionally, by splitting drills into two hour periods during the work week, units had severely limited ability to conduct maneuvers outside of annual training. To address this issue, DOD considered expanding annual training from 15 days a year to 21 or 30; but budgetary constraints prevented it from doing so.⁷⁰⁰ Guard leaders also worried that such an expansion in training would undermine recruitment and retention and put extra pressure on the civilian employers of guardsmen.⁷⁰¹

While DOD and Congress debated its future, the ARNG re-built itself. Between 1947 and 1950, the ARNG expanded from a skeleton force of 97,000 to over 324,000 soldiers, organized into 27 divisions and 27 independent regiments.⁷⁰² Among these divisions were two armored divisions (the 49th of Texas and the 50th of New Jersey)—a first for the ARNG.⁷⁰³ Much of this growth was the result of successful efforts by NGAUS to convince Congress to provide the ARNG additional funding in 1947 for a public relations campaign to bolster guard recruitment.⁷⁰⁴

⁶⁹⁸ CNGB, *Annual Report 1949*, 14.

⁶⁹⁹ U.S. Government, *Universal Military Training Hearings, 1948*, 871.

⁷⁰⁰ Presentation to the Army War College by MG EA Walsh, 05 February 1953, in Ellard Walsh Papers, Box 7, Folder 1: Department of Defense General Correspondence, NGAUS Library.

⁷⁰¹ Ibid.

⁷⁰² CNGB, *Annual Report 1950*, 5.

⁷⁰³ Hill, *The Minute Man in Peace and War*, 498.

⁷⁰⁴ Derthick, *The National Guard in Politics*, 72.

NGAUS also successfully lobbied Congress to exempt men between the ages of seventeen and eighteen from the selective service if they enlisted in the ARNG.⁷⁰⁵ As historian Martha Derthick noted in her political history of the NG, that exemption helped drive guard recruitment for over a decade.⁷⁰⁶

The re-establishment of the ARNG following WWII came within the context of major shifts in U.S. national security decision-making structures and policies. One of the most important changes came with the passage of the National Security Act of 1947. Signed into law in July 1947, the act reflected several years of debate within the defense establishment regarding how best to organize the national security community of the United States following WWII. Its ultimate purpose was to ensure the integration of policies and actions within the national security apparatus.⁷⁰⁷ To manage the post-war military, the act replaced the War Department with the National Military Establishment overseen by the Secretary of Defense.⁷⁰⁸ It also created three co-equal military departments: the Departments of the Army, Navy, and Air Force.⁷⁰⁹ And it formally established the Joint Chiefs of Staff (JCS) and created the U.S. Central Intelligence Agency (CIA) and the National Security Council (NSC).⁷¹⁰

⁷⁰⁵ Ibid., 72, 97.

⁷⁰⁶ Ibid.

⁷⁰⁷ U.S. Congress, "National Security Act of 1947," <https://www.cia.gov/library/readingroom/docs/1947-07-26.pdf> (accessed 01 April 2018).

⁷⁰⁸ Doubler, *Civilian in Peace, Soldier in War*, 227.

⁷⁰⁹ Millett, Maslowski, and Feis, *For the Common Defense*, 451.

⁷¹⁰ U.S. Congress, "National Security Act of 1947."

These changes to U.S. national security reflected the emergence of the United States as a global superpower during WWII. During the war, U.S. GDP nearly doubled, surpassing that of its enemies and allies alike.⁷¹¹ By 1945, the U.S. possessed some 60 percent of the world's industrial capacity. But the war had also proven that the United States was vulnerable to international conflict. For over a century, the United States had enjoyed the protection of two oceans that would complicate any attacks from adversaries in Europe or Asia. But now its new adversary—the Soviet Union—could use long range bombers to overfly those oceans and strike the U.S. mainland with little to no warning.⁷¹²

Although allies in WWII, the Soviet Union and the United States held incompatible economic and geopolitical worldviews. The Soviets outright rejected the U.S. vision for a post-war international order based on self-determination and free market capitalism.⁷¹³ And of greater concern for U.S. policymakers was the fact that communism was finding support among the war-ravaged nations of Western Europe.⁷¹⁴

In response to the challenges and opportunities presented by the post-WWII security environment, the Truman administration bucked U.S. tradition and, between

⁷¹¹ John Lewis Gaddis, *The Cold War: A New History* (New York: Penguin Books, reprint edition, 2006), 8-9; Melvyn Leffler, *For the Soul of Mankind: The United States, the Soviet Union, and the Cold War* (New York: Hill and Wang, 2008), 41.

⁷¹² Millett, Maslowski, and Feis, *For the Common Defense*, 440-41; OSD, *Annual Report 1949*, 4.

⁷¹³ Campbell Craig and Fredrik Logevall. *America's Cold War: The Politics of Insecurity* (Cambridge: Belknap, reprint edition, 2012), 57-58.

⁷¹⁴ Gaddis, *The Cold War*, 10.

1946 and 1949, adopted an activist foreign and defense posture to contain Soviet power. In 1947, amid fears of growing Soviet influence in Turkey and Greece, Truman presented his vision for a post-war U.S. foreign policy, which would become known as the Truman Doctrine.⁷¹⁵ In the speech, Truman explained how the United States had to “support free peoples who are resisting attempted subjugation by armed minorities or by outside pressures.”⁷¹⁶ Failure to do so, he warned, “shall certainly endanger the welfare of our own nation.”⁷¹⁷

For the U.S. military, the most important aspect of Truman’s reorientation of U.S. foreign and defense strategy was the establishment of the North Atlantic Treaty Organization (NATO) in 1949. Truman established NATO, which was the first U.S. peacetime military alliance, at the behest of France and Britain, both of which sought U.S. military protection and support as they rebuilt their economies following WWII.⁷¹⁸ The French, moreover, wanted the U.S. to demonstrate its commitment to defending Western Europe by stationing U.S. soldiers in Germany, ensuring that Americans would have to fight in the event the Soviet army attacked westwards.⁷¹⁹

Supporting the NATO alliance meant that the U.S. military had to continuously maintain large numbers of land, air, and naval forces in Europe. And it had to do the same in the Pacific to rebuild Japan and contain Soviet expansion in the

⁷¹⁵ Craig and Logevall, *America’s Cold War*, 77.

⁷¹⁶ Ibid., 79.

⁷¹⁷ Ibid.

⁷¹⁸ Ibid., 97.

⁷¹⁹ Ibid., 98.

region. In fact, by 1949, five of the 10 U.S. active divisions and eight of its 11 independent regiments were deployed overseas.⁷²⁰

Although forward deployed, the U.S. Army in the late 1940s played a relatively minor role in U.S. national security. At the time, U.S. strategy for countering the Soviets focused on nuclear arms, leveraging the U.S. nuclear monopoly and advantages in bombers.⁷²¹ The U.S. Army's mission, therefore, was to defend key infrastructure abroad, such as airfields, and to build its strength stateside for an "eventual climactic ground attack," which would occur after nuclear bombers destroyed critical military and economic targets in the Soviet Union.⁷²²

As he placed his trust in the power of nuclear arms, Truman, who wanted to stave off another Great Depression through cutting the federal deficit, slashed defense spending, as shown in Table 2.10.⁷²³ Of the remaining funds, over half went to the navy and the air force, which would lead the fight in the event of war with the Soviets.⁷²⁴ Rising inflation at the time further reduced the purchasing power of the budget, which also had to contend with new costs.⁷²⁵ Those new costs included nearly \$8 billion in veterans benefits owed to service members from WWII, growing

⁷²⁰ OSD, *Annual Report 1949*, 42.

⁷²¹ Linn, *The Echo of Battle*, 155.

⁷²² Ibid., 155-59; Millett, Maslowski, and Feis, *For the Common Defense*, 446.

⁷²³ Linn, *The Echo of Battle*, 152; U.S. Army Center of Military History, *American Military History Volume II: The United States Army in a Global Era, 1917-2008*, 214; Bradley, *A General's Life*, 474.

⁷²⁴ U.S. Army Center of Military History, *American Military History Volume II: The United States Army in a Global Era, 1917-2008*, 214.

⁷²⁵ Bradley, *A General's Life*, 487.

retirement benefits that increased from \$22 million per year in 1948 to \$43 million by 1951, and rising military and civil service pay.⁷²⁶ The shrinking percentage of funds available to support army training, operations, and equipment created risks. But, as Secretary of Defense Forrestal argued in 1947, the U.S. nuclear monopoly allowed the United States to “assume certain risks otherwise unacceptable.”⁷²⁷

2.10: U.S. National Defense Spending: 1944-1950 (2017 USD) ⁷²⁸		
Year	Defense Spending (billions)	Percent of Federal Budget
1944	\$892.5	86.7
1946	\$415.8	77.3
1948	\$75.7	30.6
1950	\$112.8	32.2

These budget cuts, combined with the army’s post war mission assignments, severely restricted the army’s ability to prepare for war with the Soviets. With its funding slashed, the army had to keep all divisions understrength, with the exception of the 1st Infantry Division stationed in Germany.⁷²⁹ Demobilization and the booming

⁷²⁶ Bradley, *A General’s Life*, 474, 487; OSD, *National Defense Budget Estimates for FY 2015*, April 2014, 76, https://comptroller.defense.gov/Portals/45/Documents/defbudget/fy2015/FY15_Green_Book.pdf (accessed 28 April 2020).

⁷²⁷ Gaddis, *The Cold War*, 35.

⁷²⁸ U.S. Government, Table 3.1—OUTLAYS BY SUPERFUNCTION AND FUNCTION: 1940–2019, <https://www.gpo.gov/fdsys/search/pagedetails.action?granuleId=BUDGET-2015-TAB-5-1&packageId=BUDGET-2015-TAB&fromBrowse=true> (accessed 28 April 2020); OSD, “National Defense Budget Estimates for FY 2001,” March 2000, 16, http://comptroller.defense.gov/Portals/45/Documents/defbudget/Docs/fy2001_greenbook.pdf (accessed 20 April 2020).

⁷²⁹ Citino, *Blitzkrieg to Desert Storm* 117; U.S. Army Combat Studies Institute, *Sixty Years of Reorganizing for Combat: A Historical Trends Analysis* (Ft. Leavenworth: Combat Studies Institute Press, 1999), 16.

economy also caused a brain drain, as many technical specialists and experienced leaders left the army for higher paying civilian careers.⁷³⁰

The ARNG also faced some readiness challenges in the late 1940s. As had been the case for decades, the ARNG suffered from shortages of active duty instructors and advisors.⁷³¹ The active army could not afford to release officers to support the NG, given the requirements of managing a rapidly shrinking army and maintaining an effective command and control over forces stationed in Japan, Germany, and across the globe. The ARNG also lacked adequate facilities to house its growing inventories of armored vehicles or to conduct live fire exercises with mortars and artillery.⁷³²

Despite these challenges, the ARNG reached its highest ever peacetime readiness levels in the late 1940s. In 1949, nearly 80 percent of the ARNG's officer corps had combat experience. This cadre of leaders, as historian Michael Doubler noted, would go on to lead the ARNG for nearly twenty years.⁷³³ Additionally, the guard had improved access to army schools. By 1950, 20,554 guardsmen were

⁷³⁰ U.S. Army Center of Military History, *American Military History Volume II: The United States Army in a Global Era, 1917-2008*, 205; Millett, Maslowski, and Feis, *For the Common Defense*, 451.

⁷³¹ CNGB, Annual Report 1949, 19; CNGB, Annual Report 1950, 11.

⁷³² June 1953 – Statement of Colonel CM Boyer, Executive Director, Reserve Officers Association, to the House Armed Services Committee Investigating the Reserve Training Program, June 1953, in Ellard Walsh Papers, Box 24, Folder 3: Reserve Policy Board, NGAUS Library; William Berebitsky, *A Very Long Weekend: The National Guard in Korea, 1950-1953* (Shippensburg: White Mane Publishing Company, 1996), 179.

⁷³³ Doubler, *Civilian in Peace, Soldier in War*, 226; CNGB Annual Report 1949, 5.

attending schools; and nearly the same amount were enrolled in extension courses.⁷³⁴

As discussed above, the ARNG had usually sent less than a thousand guardsmen to schools a year in the 1930s and early 1940s. The post-war ARNG would face its first major test in Korea.

Section 6: The Korean War

The Korean War marked the beginning of a new era in U.S. military history—the era of limited conflicts authorized by executive action, not Congressional declarations. The U.S. would find itself in several of these types of conflicts over the next sixty years—most of which required the activation of the ARNG. For the ARNG, the Korean War was significant in that it was the first and last time it deployed maneuver forces above the battalion level led primarily by guard officers to conduct combined arms operations against a state army.⁷³⁵ And, as in the past, the ARNG faced a turbulent mobilization period marred by personnel turmoil and tension between active duty and guard leadership. But, in Korea, the ARNG had something it lacked during mobilization for WWI and WWII: veteran leadership.

⁷³⁴ CNGB, *Annual Report 1950*, 12; OSD, *Annual Report 1949*, 173.

⁷³⁵ As discussed later in the next chapter, the ARNG sent several brigade-sized maneuver forces to support combat operations in Iraq and Afghanistan since 2001. Those brigades, however, have largely faced small insurgent formations and rarely had to conduct maneuvers above the company and battalion level. Meanwhile, the active duty army has conducted combined arms maneuver above the battalion level on several occasions since the Korean War: 1) The Vietnam War, 2) Operation Desert Storm (1991), and 3) the invasion of Iraq in 2003 and during several larger-scale battles during the war in Iraq (see Army contribution to combat operations in Fallujah in the mid-2000s). More recent large-scale combat operations—like the battle for Mosul (2016-17)—have been conducted by primarily by SOF and the USAF “by, with, and through” local allies such as the Iraqi Army and Kurdish militias.

The Korean War began on 25 June 1950, when seven divisions of the North Korean People's Army (NKPA) attacked south across the 38th parallel. Their aim was to unify the peninsula, which had been divided by the United States and the Soviets Union in 1945, under the leadership of the North Korean dictator Kim Il-Sung.⁷³⁶ Confident that the Americans would not intervene, Kim believed the war would be over in three weeks. But he miscalculated. Truman quickly authorized U.S. military intervention to protect U.S. prestige and ensure the Koreans remained a key ally.⁷³⁷

U.S. intervention found support with the United Nations (UN), an international organization that the victors of WWII established in 1945 to promote international peace and order. To maintain such order, the UN authorized force to defend South Korea. And to lead that mission, the United States nominated—and the UN accepted—General Douglas MacArthur, the former Supreme Allied Commander for Allied Powers in the Pacific Theater during WWII.⁷³⁸

MacArthur, however, grossly underestimated the NKPA, believing a U.S. regimental combat team (RCT) and two divisions could reverse the tide of the war.⁷³⁹ But when the NKPA overran the advanced element of the U.S. 24th Infantry Division (known as Task Force Smith) at Osan on 05 July, he revised his estimate, requesting

⁷³⁶ T.R. Fehrenbach, *This Kind of War: The Classic Korean War History* (Dulles: Brassey's, 50th anniversary edition, 2000), xvii, 35.

⁷³⁷ Bruce Cumings, *The Korean War: A History* (New York: Modern Library, reprint edition, 2011), 11-12.

⁷³⁸ Fehrenbach, *This Kind of War*, 56.

⁷³⁹ Cumings, *The Korean War*, 14-15.

six more divisions.⁷⁴⁰ By early August, nine U.S. divisions, which formed the 8th Army, were on the ground in and around the southern port city of Pusan.⁷⁴¹ UN forces from the British Commonwealth, Turkey, France, the Netherlands, and the Philippines began arriving shortly thereafter.⁷⁴²

Nearly two weeks after the defeat of Task Force Smith, President Truman announced in a televised speech that he was authorizing the mobilization of the ARNG.⁷⁴³ The first guard units received activation orders on 22 July; and by 1951 a third of the ARNG was mobilized for active duty.⁷⁴⁴ Guardsmen called to active duty that summer served on twenty-one-month orders; those activated after mid-1951 served two years.⁷⁴⁵

At first, DOD was reluctant to deploy guard units outside of the United States. CSA J. Lawton Collins (1949-53) feared a mass deployment of guardsmen would disrupt the communities from which they came.⁷⁴⁶ That said, DOD still needed the NG to provide individual replacements for active divisions deployed to Korea. U.S. divisions in Korea were critically short of trained soldiers due to battlefield losses and

⁷⁴⁰ Ibid.

⁷⁴¹ Fehrenbach, *This Kind of War*, 108-09.

⁷⁴² Manchester, *American Caesar*, 560.

⁷⁴³ Doubler, *Civilian in Peace, Soldier in War*, 231-32.

⁷⁴⁴ CNGB, *Annual Report 1951*, 1.

⁷⁴⁵ Berebitsky, *A Very Long Weekend*, 5.

⁷⁴⁶ DOD Press Release, 11 September 1941, in Ellard Walsh Papers, Box 7, Unnumbered Folder: Department of Defense General Correspondence, NGAUS Library; Berebitsky, *A Very Long Weekend*, 6; Clay Blair, *The Forgotten War: America in Korea, 1950-1953* (New York: Times Books, 1987), 121.

the fact that most units entered the war understrength.⁷⁴⁷ DOD's rotation policy for Korea also increased the need for replacements, as it guaranteed soldiers they would rotate out of combat after a year.⁷⁴⁸ And there were not enough active soldiers available to backfill them. Thus, the Pentagon—now under the leadership of Secretary of Defense George Marshall—started activating NG divisions in the fall of 1950 to provide individual replacements.⁷⁴⁹ The 28th and 43rd divisions as well as two separate RCTs, the 196th and 278th, were the first to do so.⁷⁵⁰ A year later, DOD activated two additional ARNG divisions—the 31st and 47th—for the same purpose.⁷⁵¹

DOD continued to hold off on sending full ARNG units to Korea until the intervention of Chinese forces in November 1950. At the start of the war, the CIA estimated that China would not take an active role in the conflict.⁷⁵² However, Mao Zedong—the Chairman of the Chinese Communist Party of China—considered intervening as early as August, if U.S. forces crossed into North Korea.⁷⁵³ And when

⁷⁴⁷ Millett, Maslowski, and Feis, *For the Common Defense*, 457.

⁷⁴⁸ Ibid., 463.

⁷⁴⁹ Berebitsky, *A Very Long Weekend*, xi; John Norris, "Fresh Troops Build Up Units Now in Korea," *The Washington Post*, 13 February 1951, 1.

⁷⁵⁰ Berebitsky, *A Very Long Weekend*, 250.

⁷⁵¹ Ibid.

⁷⁵² CIA, Weekly Highlights: 27 June 1950, 1.
<https://www.cia.gov/library/readingroom/docs/1950-06-27b.pdf> (accessed 15 March 2018).

⁷⁵³ Cumings, *The Korean War*, 4.

Truman authorized MacArthur to pursue the retreating NKPA near Chinese territory, Mao intervened.⁷⁵⁴

On 26 November, 300,000 Chinese crossed into Korea, crashing into overextended UN forces and pushing them back across the 38th Parallel into South Korea.⁷⁵⁵ But the further they advanced away from their bases in China and into the open, the more their supply lines became overextended and the more punishment they suffered from U.S. airstrikes and artillery.⁷⁵⁶ Exploiting these advantages, UN forces eventually stabilized the front, although only after fleeing back into South Korea.

Table 2.11: ARNG Maneuver Units Deployed during Korean War					
Unit (State)	Deployed To	Activation	Date Deployed	Time to Train Before Combat	Losses ⁷⁵⁷
28th ID (PA)	Germany	01 SEP 50	12 NOV 51	N/A	N/A
40th ID (CA)	Japan, Korea	01 SEP 50	11 JAN 52	16 Months	311 KIA, 10 MIA, and 1,504 WIA.
43rd ID (RI, CT, VT)	Germany	01 SEP 50	20 OCT 51	N/A	N/A
45th ID (OK)	Japan, Korea	01 SEP 50	05 DEC 51	15 Months	707 KIA, 1 MIA, 3,258 WIA
196th RCT (SD)	Alaska	01 SEP 50	Late JUL 51	N/A	N/A
278th RCT (TN)	Iceland	01 SEP 50	N/A		N/A

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⁷⁵⁴ Gaddis, *The Cold War*, 45.

⁷⁵⁵ Ibid., 45-46.

⁷⁵⁶ Citino, *Blitzkrieg to Desert Storm*, 143.

⁷⁵⁷ Gordon Rottman, *Korean War Order of Battle: United States, United Nations, and Communist Ground, Naval, and Air Forces, 1950-1953* (Westport: Praeger, 2002), 32-33.

⁷⁵⁸ Berebitsky, *A Very Long Weekend*, 265-69; Doubler, *Civilian in Peace, Soldier in War*, 234; Staff Writers, "Lineage", Undated, <http://www.278acr.com/metadot/index.pl?iid=2167> (accessed 23 November 2019; Staff Writers, "43d division to join 'ike' this month," *The Washington Post*, 01 October 1951, 1; Staff Writers, "Guardsmen Embark," *The Washington Post*, 18 November 1951, M10; Staff Writers, "National guard division lands for german duty," *The Los Angeles Times*, 21

The Chinese intervention and subsequent retreat of UN forces led Truman to declare a national emergency on 16 December 1950, setting the stage for the deployment of ARNG.⁷⁵⁹ The first ARNG units to arrive were eight truck companies that landed in 1951 to help move UN personnel and supplies away from the Chinese advance.⁷⁶⁰ As the front stabilized during the first three months of 1951, battalion-sized ARNG artillery and combat support units began arriving.⁷⁶¹ Matthew Ridgeway, who took command of 8th Army in December 1950 after its former commander, Walton Walker was killed in a traffic accident, was particularly interested in bringing ARNG artillery units, as he aimed to leverage U.S. advantages in firepower to destroy Chinese infantry.⁷⁶² Soon after taking command, he requested 10 artillery battalions from the ARNG and reserves, which were rushed to Korea with little pre-deployment training.⁷⁶³

As senior DOD officials debated their fate, the four ARNG divisions and two RCTs that had received activation orders on 31 July began mobilization. Leaving

October 1951; Staff Writers, “28th Division Set to Go to Germany,” *New York Times*, 25 October 1951; Steven Bucklin, “Those in Reserve Also Serve: The South Dakota National Guard during the Korean War,” *South Dakota History*, Vol. 30 (Winter 2000), No. 4, 399.

⁷⁵⁹ Harry S. Truman, 304. Proclamation 2914: Proclaiming the Existence of a National Emergency, 16 December 1950, <https://www.trumanlibrary.org/publicpapers/index.php?pid=994&st=&st1=>; Manchester, *American Caesar*, 610.

⁷⁶⁰ Berebitsky, *A Very Long Weekend*, 29.

⁷⁶¹ *Ibid.*, xi.

⁷⁶² David Halberstam, *The Coldest Winter: America and the Korean War* (New York: Hyperion, 2008), 496.

⁷⁶³ *Ibid.*

their civilian lives behind, these guardsmen assembled at local armories before heading to mobilization sites for training, which commenced in early September.⁷⁶⁴

ARNG divisions, like their active duty counterparts, were understrength and needed to receive additional personnel to fill their rosters. As of early September, the 40th Infantry Division, whose soldiers mostly came from the Los Angeles area, had 9,866 soldiers—nearly nine thousand short of its authorized strength.⁷⁶⁵ DOD filled these personnel vacancies with draftees, reservists, and active duty personnel.⁷⁶⁶ Once assembled at their training sites, the ARNG divisions began a training program designed to build unit proficiency in collective combat tasks, as most had only trained up to the company and battalion-level over the previous two years.⁷⁶⁷

As was the case during the world wars, the ARNG struggled to train because of a host of personnel issues. Recently drafted soldiers and new guard enlistees, for instance, arrived with no training, as the U.S. Army at the time still did not send guard soldiers to basic training.⁷⁶⁸ Instead, they relied on receiving units to provide such training.⁷⁶⁹ Many of the junior officers, moreover, had not attended their basic

⁷⁶⁴ Staff Writers, “National Guard Divisions Get Call to Duty,” *Los Angeles Times*, 01 August 1950, 1.

⁷⁶⁵ Berebitsky, *A Very Long Weekend*, 178.

⁷⁶⁶ Millett, Maslowski, and Feis, *For the Common Defense*, 462-63; Kevin Starr, *Embattled Dreams: California in War and Peace, 1940-1950* (New York: Oxford University Press, 2003), 309-310.

⁷⁶⁷ Staff Writers, “Gen. Clark Warns National Guard to Train Quickly,” *The Washington Post*, 15 August 1950, B11; Berebitsky, *A Very Long Weekend*, 179; Staff Writers, “Guard Not Ready for Early Combat,” *New York Times*, 11 February 1951, 10.

⁷⁶⁸ Berebitsky, *A Very Long Weekend*, 118.

⁷⁶⁹ *Ibid.*

schools, meaning they were not qualified in their respective specialties.⁷⁷⁰ And some of those officers who were branch qualified were pulled away by the active army to serve as replacements for units in Korea.

Units also lost some of their soldiers upon mobilizing because they were under 18 years old. As one soldier from the 40th Infantry Division recalled, “upon being called into active duty, about two thirds of our ranks had to be let go, seeing that they had enlisted underage.”⁷⁷¹ Such disruptions meant that readiness levels dropped, as guardsmen who were trained in individual and collective tasks during weekly two-hour drills and annual training departed; and new soldiers who had not participated in said training took their place.

Unlike in WWI and WWII, the active army did not purge the ARNG of its senior and mid-ranking officers. Of course, active and reservist officers took command positions in guard units in some cases. And some held negative opinions of guardsmen. One 40th Infantry Division soldier recalled how his new company commander—assigned from the reserves—“openly expressed disdain, if not loathing for the [national guardsmen] of whom he talked about getting rid of as soon as possible!”⁷⁷² Meanwhile, an active duty officer assigned to lead one of the 45th Infantry Division’s regiments let his subordinates know upon taking command that he

⁷⁷⁰ Ibid.

⁷⁷¹ Ibid., 17.

⁷⁷² Ibid., 18.

“had no respect for National Guard officers,” even though the majority of them were WWII veterans.⁷⁷³

Many ARNG officers who mobilized in 1950 were combat veterans who had the skills and experiences necessary to keep their jobs and perform to the standards expected of them by the active duty army. For example, 65 percent of the 40th Infantry Division’s officers were veterans, according to its division commander at the time.⁷⁷⁴ And 75 percent of the officers and 50 percent of the NCOs of the 45th Division were combat veterans, according to the division’s official history records.⁷⁷⁵ The 45th’s commander, MG Daniel Hudelson, had even served as a regimental commander under General Patton in WWII.⁷⁷⁶

For over six months, the ARNG divisions trained stateside, focusing on basic soldier skills and small unit tactics. Training could not advance beyond this level for several reasons. For one, units could not start training immediately upon arriving to their training sites in September. Facilities at those sites were not ready to receive them; and some units, like the 45th Infantry Division, had to spend its initial months mobilized building facilities at Camp Polk, Louisiana.⁷⁷⁷ Units also had to give up thousands of pieces of equipment to others already deployed to Korea, thereby

⁷⁷³ Ibid.

⁷⁷⁴ Staff Writers, “Ridgeway Reveals 40th Division in Korea,” *Los Angeles Times*, 03 February 1952.

⁷⁷⁵ Kenny Franks, *Citizen Soldiers: Oklahoma’s National Guard* (Norman: University of Oklahoma Press, 1984), 143.

⁷⁷⁶ Staff Writers, “Gen D. H. Hudelson, Dissident on Korea,” *The New York Times*, 03 February 1970, 43; Starr, *Embattled Dreams*, 308-09.

⁷⁷⁷ Franks, *Citizen Soldiers: Oklahoma’s National Guard*, 143.

limiting the realism of their training.⁷⁷⁸ Meanwhile, new soldiers needed to complete a six-week initial entry training program.⁷⁷⁹ The 40th Infantry Division, for instance, had to train 14,237 new recruits between October 1950 and February 1951.⁷⁸⁰ One ARNG captain from the 40th later recalled how, “there was a lot of lost time initially simply because you had such an influx of guys that were draftees who had been brought into the division. You virtually had to start from scratch instead of starting with unit training which is the initial objective of a mobilized Guard unit.”⁷⁸¹

On 18 December, MacArthur asked for the JCS to send four ARNG divisions to Japan, as the Soviets had started broadcasting threats to Japan over the radio.⁷⁸² Deploying the guard to Japan would allow the active army and Marine Corps to focus on the fight in Korea.⁷⁸³ A day later, the JCS rejected the request, suggesting MacArthur consider sending forces from Korea to protect Japan.⁷⁸⁴ Furious, MacArthur explained to the JCS that he lacked the forces to fight both in Korea, while securing Japan against a Soviet attack; thus, he pressed once again in mid-January for the ARNG divisions.⁷⁸⁵ This time the JCS relented, offering to deploy

⁷⁷⁸ Doubler, *Civilian in Peace, Soldier in War*, 232.

⁷⁷⁹ Berebitsky, *A Very Long Weekend*, 189.

⁷⁸⁰ Doubler, *Civilian in Peace, Soldier in War*, 235.

⁷⁸¹ Berebitsky, *A Very Long Weekend*, 187.

⁷⁸² Blair, *The Forgotten War*, 550.

⁷⁸³ Condit, *History of the Office of the Secretary of Defense: The Test of War: 1950-53*, 91; Franks, *Citizen Soldiers: Oklahoma's National Guard*, 144.

⁷⁸⁴ Ibid.

⁷⁸⁵ Blair, *The Forgotten War*, 639.

two ARNG divisions to Japan, if MacArthur could halt the Chinese, who had just recaptured Seoul on 04 January.⁷⁸⁶ They would not, however, allow MacArthur to expand the war by bombing Chinese bases and industry inside China.⁷⁸⁷ Tensions over that issue eventually led Truman to fire MacArthur in April 1951, replacing him with Ridgeway.

Before MacArthur's firing, UN forces managed to stabilize their lines. And, as promised, the JCS authorized the deployment of two ARNG divisions—the 40th and 45th.⁷⁸⁸ Initially, the decision was kept secret in order to avoid angering NATO allies.⁷⁸⁹ But by late February, DOD had released the decision to the U.S. press.⁷⁹⁰ And to placate NATO and to bolster U.S. defenses elsewhere, the JCS authorized the deployment of the 28th and 43rd Infantry Divisions to Germany and smaller deployments of guardsmen to Alaska, Iceland, and Panama.⁷⁹¹ DOD, however, assured Congress that guard divisions would not enter combat in Korea.⁷⁹²

As they embarked for Japan in March 1951, the 40th and 45th remained unprepared for combat, as they had still conducted little to no training at the

⁷⁸⁶ Franks, *Citizen Soldiers: Oklahoma's National Guard*, 144; Blair, *The Forgotten War*, 639.

⁷⁸⁷ Manchester, *American Caesar*, 621-22.

⁷⁸⁸ Franks, *Citizen Soldiers: Oklahoma's National Guard*, 144.

⁷⁸⁹ Condit, *History of the Office of the Secretary of Defense: The Test of War: 1950-53*, 191.

⁷⁹⁰ Staff Writers, "40th Division Gets Japan Duty Orders," *Los Angeles Times*, 25 February 1951, 1.

⁷⁹¹ Berebitsky, *A Very Long Weekend*, xi, 5.

⁷⁹² Staff Writers, "40th Division Gets Japan Duty Orders," 1.

regimental and division level.⁷⁹³ As one senior NCO from the 40th conceded in an interview with the L.A. Times, “the division isn’t quite ready yet but when we finish our training in Japan we’ll be ready for whatever happens.”⁷⁹⁴ In fact, the army rated both divisions at around 43 to 45 percent ready as they sailed for Japan.⁷⁹⁵

Once settled in Japan, the divisions began training, which continued to focus on basic soldier tasks.⁷⁹⁶ One reason for this delay was that the regiments had to re-organize into RCTs, as they had not fully completed their re-organization over the previous two years. Another reason was that the army prevented soldiers who had not completed their basic training from deploying to Japan. Consequently, the 45th had to leave 4,000 soldiers in California to complete basic training; they later rejoined the unit in Japan in June.⁷⁹⁷ The 40th had a similar experience; but it had the added burden of having to send soldiers to Korea as replacements.⁷⁹⁸

The individual replacement issue generated a political firestorm in 1951. That year, NGAUS lobbied Congress against “stripping” of ARNG units of veterans to fill out active duty units in Korea—a practice that, it contended, had resulted in the

⁷⁹³ Staff Writers, “Guard Not Ready for Early Combat,” 10.

⁷⁹⁴ Staff Writers, “40th Division Gets Japan Duty Orders,” 16.

⁷⁹⁵ Berebitsky, *A Very Long Weekend*, 125, 194, 196.

⁷⁹⁶ Staff Writers, “California guard unit now training in Japan,” *Los Angeles Times*, 01 May 1951, 9.

⁷⁹⁷ Franks, *Citizen Soldiers: Oklahoma’s National Guard*, 144-45.

⁷⁹⁸ Berebitsky, *A Very Long Weekend*, 129.

“almost complete destruction of an initially high morale” in ARNG units.⁷⁹⁹ DOD countered, arguing that they had no other source to draw trained soldiers.⁸⁰⁰ The controversy intensified when the outspoken commander of the 40th Division, Major General Daniel Hudelson, refused to send soldiers to Korea.⁸⁰¹ Disobeying the orders of his superior officers, Hudelson told the army that “they can go piss on a flat rock.”⁸⁰² Normally, an officer would be removed from command for such blatant insubordination. But Hudelson was shielded by congressional supporters, who successfully pressured the army to stop pulling replacements from his division.⁸⁰³

By mid-1951, the 40th and 45th divisions were finally able to progress to more advanced training, as their units came to full strength. That June, the 40th conducted beach landing exercises at the division-level that integrated maneuvers with air and naval forces.⁸⁰⁴ The training, moreover, was aided by officers and NCOs sent from Korea to help prepare the guardsmen to counter the tactics of the Chinese and North Koreans.⁸⁰⁵ This advanced training set the stage for the divisions to deploy to Korea.

⁷⁹⁹ Staff Writers, “Raids by Services on Guard Assailed,” *New York Times*, 23 October 1951, 17.

⁸⁰⁰ Harold Hinton, “Use of Guardsmen Clarified by Army,” *New York Times*, 12 September 1951, 17.

⁸⁰¹ Berebitsky, *A Very Long Weekend*, 202; Starr, *Embattled Dreams*, 308.

⁸⁰² Berebitsky, *A Very Long Weekend*, 202.

⁸⁰³ Ibid.; Starr, *Embattled Dreams*, 308.

⁸⁰⁴ Staff Writers, “40th Completes Landing Exercises,” *Los Angeles Times*, 30 June 1951, 4.

⁸⁰⁵ Staff Writers, “U.S. 45th Division Battles in Korea,” *New York Times*, 31 December 1951, 2.

Secretary Marshall had considered deploying the ARNG infantry divisions to Korea as early as February 1951 to relieve active duty army and USMC units.⁸⁰⁶ And, in the summer of 1951, rumors began to swirl in the U.S. press that such a deployment was imminent. But the war had stabilized by mid-1951 and U.S. casualties were falling, reducing the need for guardsmen.⁸⁰⁷ DOD, however, still was adhering to its one-year rotation policy; and the ARNG was still the only source of trained combat power to draw upon. Congress and NGAUS were also pressuring DOD to deploy ARNG divisions.⁸⁰⁸

On 18 November 1951, DOD ordered the 40th and 45th to prepare for movement to Korea.⁸⁰⁹ The 45th arrived first in December 1951, replacing the 1st Cavalry Division north of Seoul.⁸¹⁰ About a month later, the 40th arrived, relieving the 24th Infantry Division near Kumsong.⁸¹¹ The 45th suffered its first casualty shortly after arriving on 15 December, when 1st Lieutenant Jack Hancock of Poteau, Oklahoma, died from enemy fire.⁸¹² The 40th suffered its first loss on 20 January

⁸⁰⁶ Memorandum of Telephone Conversation with Secretary of Defense General George C. Marshall, February 19, 1951. Acheson Papers - Secretary of State File, 1. Available at: <https://www.trumanlibrary.gov/library/personal-papers/memoranda-conversations-file-1949-1953/february-1951-0?documentid=32&pagenumber=1> (accessed 27 March 2021).

⁸⁰⁷ Berebitsky, *A Very Long Weekend*, 135.

⁸⁰⁸ Ibid.

⁸⁰⁹ Ibid., 128, 135.

⁸¹⁰ John Miller, Owen J. Curroll, and Margret E. Tackley, *Korea: 1951-1953* (Washington, DC: Center of Military History, reprint edition, 1997), 206.

⁸¹¹ Miller, *Korea: 1951-1953*, 208; Staff Writers, "New Division In Action," *New York Times*, 10 March 1952, 2.

⁸¹² Staff Writers, "45th Division Revealed to Be Fighting in Korea," *The Washington Post*, 29 December 1951, 6.

1952, when mortar fire killed Sergeant First Class Kenneth Kaiser Jr. of Los Angeles.⁸¹³

By the time ARNG divisions entered Korea in late 1951, the character of the fighting had changed from a mobile fight to a static attritional one.⁸¹⁴ As General Ridgway recalled in his memoirs, “the offense was still moving ahead, but the attacks we planned were all of the limited-objective type, toward carefully selected objectives, over terrain that had been thoroughly studied and with every care not to allow our aggressiveness to draw us into reckless pursuit with avoidable and perhaps heavy losses.”⁸¹⁵ To keep losses low, guard and regular divisions occupied fortified company-sized defenses on hilltops or ridges, taking advantage of the improved accuracy and responsiveness of U.S. artillery and air support to surround themselves with protective rings of firepower.⁸¹⁶ The infantry’s job was simply to keep the enemy pinned down to ensure that artillery could destroy them.⁸¹⁷ Total U.S. air domination, moreover, enabled the UN forces to decimate Chinese supply lines and ground troops.⁸¹⁸ Thus, it is difficult to assess how well the ARNG divisions

⁸¹³ Staff Writers, “40th Suffers First Fatality in Korea,” *Los Angeles Times*, 29 January 1952, 1.

⁸¹⁴ Doubler, *Civilian in Peace, Soldier in War*, 236-37.

⁸¹⁵ Matthew Ridgway, *The Korean War: How We Met the Challenge: How All-Out Asian War Was Averted: Why MacArthur Was Dismissed: Why Today's War Objectives Must Be Limited* (New York: Doubleday, 1967), 157.

⁸¹⁶ House, *Combined Arms Warfare in the Twentieth Century*, 201.

⁸¹⁷ English and Gudmundsson, *On Infantry*, 157.

⁸¹⁸ Ridgway, *The Korean War*, 75.

performed and whether they could indeed execute their primary tasks—combined arms maneuver—under the command of guard officers.

The war ended in an armistice in July 1953, as Soviet leaders who had replaced Stalin following his death in March 1953 pressured the Chinese to end the war.⁸¹⁹ Millions of Koreans and Chinese died in the war, as did 33,741 U.S. personnel.⁸²⁰ Despite these losses and the fact the war essentially ended in a stalemate, the UN achieved its original objective of preventing the Korean Peninsula from falling completely under the control of a Soviet ally.

For its part, the ARNG made important contributions to the success of the UN mission. During the first half of the war, guardsmen provided critical support by sending individual replacements to keep active duty units at or near full strength. Guard transportation and logistics units, meanwhile, helped enable and sustain UN ground operations. In the second half of the war, the guard provided UN forces with extra firepower by deploying multiple artillery batteries that helped stabilize the frontlines and prevent significant Chinese advances. And the two infantry divisions that the guard deployed allowed the active army to rotate exhausted units out of the frontline, while maintaining a robust forward defense. Additionally, the ARNG deployed thousands of troops outside of Korea, including five infantry divisions, to support homeland defense missions and deployments to other theaters. The guard, therefore, fulfilled its primary role during the Korean conflict, as it had during the world wars. And it was able to do so because it had veteran leadership and because

⁸¹⁹ Millett, Maslowski, and Feis, *For the Common Defense*, 473.

⁸²⁰ *Ibid.*, 474.

most of its units had around a year to train and reorganize prior to deployment. But as the next chapter shows, changing political and military circumstances prevented the U.S. Army from relying on that same formula in the latter half of the 20th century.

Chapter 3: The National Guard as an Operational Reserve

“We want the Guard and Reserve to be more responsive. It is possible that if a conflict breaks out in the future, it’ll happen in a faster rate of speed. Thirty-nine days of training ahead of time and counting on post-mobilization training may not be a wise thing for us to do as we go forward.”⁸²¹

General Mark Milley, U.S. Army Chief of Staff, 2015

Following the Korean War, DOD increasingly came to depend on the ARNG to carry out its wartime and peacetime missions. To prepare it for such greater responsibilities, DOD improved ARNG training, personnel, and equipment standards to a level that blurred the distinction between the guard and the active army, as both components’ missions and capabilities became increasingly similar. Defense policymakers took this path for two reasons. First, the army simply lacked enough active duty personnel to compete with the Soviets, especially once the United States abolished peacetime conscription in 1973. And, second, rising operations, personnel, and maintenance costs strained the army budget, forcing it to rely more on cheaper guardsmen. Such costs rose because unprecedented U.S. deficit spending enabled the DOD to transform the army into a high-tech and high-skilled force in the 1980s to offset Soviet quantitative advantages in arms and personnel. And following the Cold War, the army deepened its commitment to this way of war, as the military downsized and as overseas operations rose as the United States became bogged down in protracted peacekeeping, counterterrorism, and counterinsurgency operations.

⁸²¹ Michelle Tan, “Top Army General Outlines Plans for New Brigades, New Technologies,” *The Army Times*, 21 January 2016.

Guard maneuver units, however, struggled to keep up with their growing responsibilities. Most continued to drill several days a month and two weeks in the summer, as they had since the early 20th century. But that training schedule proved inadequate for building unit readiness above the battalion-level in the late 20th and early 21st centuries, given the increased sophistication of army doctrine, equipment, and tactics. And unlike in the world wars and Korea, the guard could not assume it would have many months—if not years—to make up for peacetime training deficiencies, as it needed to reinforce overstretched active duty units almost immediately at the outset of a war. How and why this situation unfolded, and its significance, is the focus of this chapter.

Section 1: Becoming an Operational Reserve

The ARNG's primary purpose during the Cold War was to reinforce the active army in Europe in the event of war with the Soviet Union, while also assisting civil and military authorities with defending the continental United States. But the Soviets, who practiced mass conscription, could field about twice as many soldiers and far more armored vehicles and artillery than the U.S. Army.⁸²² The U.S. government lacked the political will and ability to match the Soviets in conventional ground forces, as doing so would have caused a massive drain on the U.S. economy.⁸²³ Thus, to offset Soviet quantitative advantages, U.S. administrations, starting with Truman

⁸²² Main Trends in Soviet Capabilities and Policies: 1957-1962, National Intelligence Estimate, Annotated Copy, Excised Copy, NIE 11-4-57, 12 November 1957, 24 (accessed through the Digital National Security Archives (DNSA)).

⁸²³ Tauschweizer, *Cold War U.S. Army*, 28-29.

and Eisenhower, turned to nuclear arms, as laid out in National Security Council (NSC) Document 162/2 (known as the New Look Strategy), published in October 1953.⁸²⁴ Through this strategy, the Eisenhower Administration sought to maintain “a strong military posture, with [an] emphasis on the capability of inflicting massive retaliatory damage by offensive striking power...”⁸²⁵ And that “massive retaliatory damage” would come through nuclear arms, which were far cheaper to develop and maintain than a mass conscript army.

The ARNG—and the army in general—played a relatively minor role in support of the New Look Strategy. The Eisenhower Administration and some senior officers in the Navy and Air Force believed that airpower in the age of nuclear arms was decisive, as land forces lacked the means to deliver such weapons via bombers and missiles.⁸²⁶ Ground forces were also highly vulnerable to nuclear strikes, especially as the Soviets began to field lower-yield tactical nuclear arms.⁸²⁷ Thus, the U.S. Army’s role in the New Look era, in the view of Chairman of the Joint Chiefs of Staff Arthur Radford (1953-57) was “the maintenance or restoration of law and order, and re-habilitation within the United States.”⁸²⁸

⁸²⁴ A.J. Bacevich, *The Pentomic Era: The U.S. Army Between Korea and Vietnam* (Washington, DC: NDU Press, 1986), 12-13; U.S. Government, *NSC-162/12*, 5, <https://fas.org/irp/offdocs/nsc-hst/nsc-162-2.pdf> (accessed 18 February 2018).

⁸²⁵ U.S. Government, *NSC-162/12*, 5.

⁸²⁶ Trauschweizer, *The Cold War U.S. Army*, 18-19; Bacevich, *The Pentomic Era*, 15, 47.

⁸²⁷ House, *Combined Arms Warfare in the Twentieth Century*, 189-90.

⁸²⁸ Bacevich, *The Pentomic Era*, 47.

The ARNG would play an important role in supporting JCS's vision, given the guard's long history supporting civilian authorities with civil unrest and natural disasters. But Secretary of Defense Charles Wilson (1953-57) questioned the quality and reliability of the ARNG. During Congressional testimony on the guard in 1957, Wilson claimed that the ARNG became a haven for draft-dodgers during the Korean War—a claim that drew condemnation from NGAUS.⁸²⁹ NGAUS countered by arguing that those who joined the ARNG were actually volunteering for service, considering how many of them deployed to Korea.⁸³⁰ Shortly after making those incendiary comments, Wilson qualified his position stating his respect for guardsmen; but he still claimed that the ARNG system perpetuates “a low standard of training and readiness.”⁸³¹

Despite Wilson's doubts, Army leadership was generally supportive of the ARNG during Eisenhower Presidency. Army leaders likely wanted to preserve the ARNG, because cutting it or substantially scaling back its capabilities would have further eroded the land power component of the U.S. military.⁸³² They also understood the political power of the guard and, therefore, rejected measures proposed by the Secretary of Defense that they knew guardsmen and their allies

⁸²⁹ J.W. Davis, “General cries 'lie' as Wilson says draft evaders used guard,” *The Washington Post*, 02 February 1957, A1.

⁸³⁰ Ibid.

⁸³¹ Staff Writers, “Wilson says system, not guardsmen, his target,” *The Washington Post*, 02 February 1957, A1.

⁸³² Derthick, *The National Guard in Politics*, 139.

would block.⁸³³ That said, CSA Maxwell Taylor (1955-59) understood the ARNG needed to improve its training to ensure it was ready for mobilization, as he explained during an interview with ABC News in 1957.⁸³⁴ In that interview, he warned that inadequate training meant that ARNG could not “perform those indispensable duties which it must perform in mobilization.”⁸³⁵

Nevertheless, the ARNG’s roles and responsibilities grew in the latter half of the 1950s as part of the Strategic Reserve Force (STRAF) program. Under that program, DOD integrated one ARNG division into an active corps.⁸³⁶ That guard division, in turn, had to be ready to deploy overseas within nine months or less in the event of a crisis to reinforce its active duty division counterparts. Those not assigned to a corps would remain in the United States as a strategic reserve, likely helping to maintain law and order.⁸³⁷

To prepare STRAF divisions for overseas service, the ARNG devised a new training program that aimed to enable them to deploy within 36 weeks of activation.⁸³⁸ Before such an activation, guard units would focus on building and maintaining skills in individual to company-level tasks—tasks that were easier to

⁸³³ Ibid.

⁸³⁴ Kenneth Weiss, “Taylor Says Guard Fails in Training,” *The Washington Post*, 04 February 1957, A1.

⁸³⁵ Ibid.

⁸³⁶ Doubler, *Civilian in Peace, Soldier in War*, 245; CNGB, *Annual Report 1961*, 12.

⁸³⁷ Doubler, *Civilian in Peace, Soldier in War*, 245; CNGB, *Annual Report 1960*, 12.

⁸³⁸ Ibid., 35.

train on inside or near local armories.⁸³⁹ Battalion to division-level training would take place after activation when a unit would fully assembled at larger and better-resourced training sites managed by the active army. In other words, the ARNG gave up on training on battalion to division-level tasks in peacetime.

Table 3.4 ARNG Deployment Training Timeline: 1958-63 ⁸⁴⁰		
Phase	Task	Length
Phase 1	Basic and Advanced Individual Training	16 Weeks
Phase 2	Basic Unit Training	7 Weeks
Phase 3	Advanced Unit Training	6 Weeks
Phase 4	Maneuver Preparation	2 Weeks
Phase 5	Field Exercises	5 Weeks
Phase 6	Deployment Overseas	

Yet Secretary Wilson doubted the ability of the ARNG to meet these requirements due to its poor peacetime training standards. To raise these standards, Wilson and CSA Taylor mandated that new guardsmen attend a six-month basic and advanced training course before reporting to their units.⁸⁴¹ During February 1957 Congressional testimony, Secretary of the Army Wilber Bruckner (1955-61) argued such training was “fundamental to an adequate military posture for our Nation’s defense.”⁸⁴² Previously, the ARNG conducted basic training within its own units for

⁸³⁹ CNGB, *Annual Report 1954*, 16.; CNGB, *Annual Report 1956*, 22; OSD, *Annual Report 1958*, 99.

⁸⁴⁰ CNGB, *Annual Report 1961*, 43; CNGB, *Annual Report 1963*, 41.

⁸⁴¹ Derthick, *The National Guard in Politics*, 118-119; Weiss. “Taylor Says Guard Fails in Training,” A1.

⁸⁴² U.S. Congress, “[No. 22] Review of the Reserve Program; Hearings Before Subcommittee No. 1 of the Committee of Armed Services House of Representatives, Eighty-Fifth Congress, First Session, 04-21 February 1957,” 687,

new soldiers over multiple drills and annual training events. That system, however, did not ensure that new guardsmen were receiving standardized training from full-time U.S. Army instructors. And it also assumed instructors within guard units were competent and capable trainers. Furthermore, DOD leadership in the 1950s wanted to develop higher-skilled and more disciplined soldiers than in the past, which was easier to do through standardized training courses over which they had more oversight.

NG leadership initially resisted efforts to force guardsmen into federal basic training. But they were willing to compromise if the active army shortened training periods or divided them over multiple summers to limit disruptions to a guardsman's civilian life.⁸⁴³ The fear was that six months of initial training would scare away potential recruits, especially college students whose studies could be interrupted.⁸⁴⁴ That said, some senior ARNG members supported the six-month basic training option. MG Roy Green and MG John Guerard testified in February 1957 before the House Armed Services Subcommittee in support of a federally managed basic training program for all new guardsmen. Green, who recalled his service during WWII, argued that his unit suffered heavy losses because he received men with just

<https://congressional.proquest.com/congressional/docview/t29.d30.hrg-1957-ash-0020?accountid=14696> (accessed 01 March 2018).

⁸⁴³ Derthick, *The National Guard in Politics*, 118-19; Staff Writers, "National Guard Hits New Plan," *The Washington Post*, 10 January 1957.

⁸⁴⁴ Weiss, "Taylor Says Guard Fails in Training," *The Washington Post*, 04 February 1957.

eight or six weeks of training.⁸⁴⁵ In his view, “Those men died because they were not trained.”⁸⁴⁶

Ultimately, Secretary of Defense Wilson and CSA Taylor compromised, authorizing a four-month basic and advanced training program for new guardsmen who volunteered for such training.⁸⁴⁷ Two years later, however, it became a mandatory requirement for new enlistees without prior military service.⁸⁴⁸ Thus, by 1960, 95 percent of guardsmen had attended some form of basic training, be it from time served on active duty or as part of their new entrance requirements with the ARNG.⁸⁴⁹ Having them attend basic training was significant in that it almost certainly improved the quality of ARNG units by ensuring nearly all of its soldiers had six months of training overseen by professional soldiers and officers. It was also important because units no longer had to spend drill weekends training new soldiers, freeing them to focus on more advanced tasks.⁸⁵⁰

Officer training also improved for guardsmen during the Eisenhower Presidency. In the 1950s, the guard created and expanded state-run officer candidate

⁸⁴⁵ John Norris, “Two Guard Generals Favor Long Training,” *The Washington Post*, 20 February 1957, A1, A13.

⁸⁴⁶ Ibid.

⁸⁴⁷ Derthick, *The National Guard in Politics*, 119; Weiss, “Taylor Says Guard Fails in Training,” A1.

⁸⁴⁸ CNGB, *Annual Report 1958*, 30.

⁸⁴⁹ CNGB, *Annual Report 1960*, 7.

⁸⁵⁰ U.S. Congress, “[No. 22] Review of the Reserve Program,” 724.

schools (OCS) for prospective guard officers.⁸⁵¹ These schools used lesson plans built and approved by active duty officers at the Infantry School at Fort Benning, Georgia.⁸⁵² Enlisted soldiers could also volunteer to attend the active army's OCS program or Army ROTC.⁸⁵³ But the vast majority of prospective guard officers chose state OCS programs, which were generally less burdensome as they took place over multiple weekends throughout the year.⁸⁵⁴ In short, by 1960, most guard officers and soldiers were completing initial entry programs that were the same or very similar to those undertaken by active duty personnel.

Another significant development during this period was that the ARNG began consolidating weekly drills (2 hours each) into a single drill weekend held every month (about 16 hours per drill weekend).⁸⁵⁵ Such a change was important because it allowed units to spend nearly an entire workday together, providing more time to plan and execute advanced training. A two-hour drill, in contrast, dealt with major time constraints in that by the time men showed up for drill and attendance was taken, it would nearly be over. Consolidated weekend drills also allowed guard units to train in the field more frequently, given they had more time to prepare and conduct

⁸⁵¹ CNGB, *Annual Report 1958*, 30.

⁸⁵² CNGB, *Annual Report 1961*, 28.

⁸⁵³ CNGB, *Annual Report 1960*, 37.

⁸⁵⁴ CNGB, *Annual Report 1961*, 34.

⁸⁵⁵ CNGB, *Annual Report 1958*, 38; Doubler, *Civilian in Peace, Soldier in War*, 239.

movements to and from ranges.⁸⁵⁶ After about a decade of experimenting with this practice, NGB mandated all guard units switch to the monthly drill model.⁸⁵⁷

Table 3.5: The ARNG Size and Budget (1949-1960) ⁸⁵⁸		
Date	Size	Budget
1949	315,042	\$275,000,000
1950	324,761	\$216,000,000
1952*	268,000	\$218,193,073
1954	318,006	\$210,035,000
1956	404,403	\$272,231,477
1958	394,329	\$333,616,734
1960	401,765	\$410,780,000
*The drop in personnel strength was the result of guardsmen being put on active duty to serve in Korea		

Despite these improvements, ARNG maneuver units were still ill-prepared to perform their primary mission: conduct highly mobile, combined arms operations as part of the new Pentomic Division. In 1956, the army began re-organizing its divisions into the Pentomic structure.⁸⁵⁹ This new scheme did away with the traditional triangular organization of an infantry, an armor, or an airborne division by replacing the division's standard three regiments with five mobile battlegroups, which were essentially reinforced battalions with five infantry companies each.⁸⁶⁰

The army, under CSA Maxwell Taylor, created this new divisional structure for two main reasons. First, Taylor wanted the U.S. Army to be relevant in an era of

⁸⁵⁶ CNGB, *Annual Report 1963*, 12.

⁸⁵⁷ Doubler, *Civilian in Peace, Soldier in War*, 239.

⁸⁵⁸ CNGB, *Annual Report 1949*, 3, 12; CNGB, *Annual Report 1950*, 5, 12; CNGB, *Annual Report 1952*, 6-7, 13; CNGB, *Annual Report 1954*, 10, 11; CNGB, *Annual Report 1956*, 15; CNGB, *Annual Report 1958*, 29; CNGB, *Annual Report 1960*, 5, 28.

⁸⁵⁹ John Wilson, *Maneuver and Firepower: The Evolution of Divisions and Separate Brigades* (Washington, DC: U.S. Army Center of Military History, 1998), 274.

⁸⁶⁰ Doubler, *Civilian in Peace, Soldier in War*, 244.

nuclear warfare.⁸⁶¹ And to ensure the army could fight on a nuclear battlefield, Taylor believed that the army needed to develop a division that could rapidly disperse and concentrate its subordinate maneuver elements to enable their survival.⁸⁶² These elements also had the combat power and support capabilities to fight independently if necessary.⁸⁶³

The ARNG adopted the Pentomic structure in 1959.⁸⁶⁴ But it did not have the requisite training and equipment to execute Pentomic division operations. For instance, 16 of 27 guard divisions only could field three battlegroups, instead of the standard five, due to budgetary constraints.⁸⁶⁵ And all its divisions were short of armored personnel carriers (APCs), recoilless rifles, and radios, inhibiting their ability to conduct realistic training.⁸⁶⁶ But, most importantly, the ARNG did not train at the battle group-level, due to the aforementioned changes to their peacetime training routines that focused on company-level operations and below.

Despite these issues, DOD had little choice but to keep the ARNG as the army's first line reserve. As discussed, political constraints prevented it from marginalizing the guard. And rising budgetary constraints and overhead costs

⁸⁶¹ Bacevich, *The Pentomic Era*, 49-51.

⁸⁶² Ibid., 105-06.

⁸⁶³ Ibid.

⁸⁶⁴ CNGB, *Annual Report 1960*, 33; Doubler, *Civilian in Peace, Soldier in War*, 244.

⁸⁶⁵ Jerry Landauer, "New Plan to Cut Guard Detailed," *The Washington Post*, 09 July 1958, A10.

⁸⁶⁶ OSD, *Annual Report 1958*, 105.

limited its ability to invest more funds in raising the guard's personnel, equipment, and training standards.

These rising overhead costs were the result of several factors. In the 1950s, DOD devoted greater percentages of its budget to research and development (R&D) and weapons procurement than it had previously. This was due in part to how the growing complexity of modern weapon systems had greatly increased R&D costs and because soldiers needed longer training periods to understand how to operate and maintain new expensive equipment.⁸⁶⁷ DOD also had to redirect more funding away from conventional ground forces to build and maintain its growing arsenal of bombers and missiles.⁸⁶⁸

Table 3.6: U.S. Guided Missile Systems – Dollars Obligated (in Millions) ⁸⁶⁹	
Fiscal Year	Dollars Obligated
1946	72
1948	81
1950	134
1952	1,058
1954	1,067
1956	2,281
1958	5,180

Thus, the army during the Eisenhower Administration was unprepared for a general or limited war against the Soviet Union, as budgetary constraints significantly

⁸⁶⁷ Summary Evaluation of Our Actual and Potential Capabilities to Fulfill Current Military Commitments and Basic Objectives as Outlined in NSC 5906/1,” December 1, 1960 [Office of the Special Assistant for National Security Affairs, Special Assistant Series, Presidential Subseries, Box 5, Meetings with President Volume 2 (2)], 2.

⁸⁶⁸ Bacevich, *The Pentomic Era*, 100-01; “Summary Evaluation of Our Actual and Potential Capabilities to Fulfill Current Military Commitments and Basic Objectives as Outlined in NSC 5906/1,” December 1, 1960 [Office of the Special Assistant for National Security Affairs, Special Assistant Series, Presidential Subseries, Box 5, Meetings with President Volume 2 (2)], 3-4.

⁸⁶⁹ Secretary of Defense, *Annual Report 1958*, 13.

reduced its ability to maintain readiness.⁸⁷⁰ For its part, the ARNG made great strides in readiness by developing a structured peacetime training program, improving entry training standards for officers and soldiers, and by consolidating weekly training to more manageable—and potentially more productive—weekend drills. But the ARNG did not have the training, experience, and resources to execute operations above the company-level, especially once the army adopted its more complex Pentomic Division concept in 1956. In other words, the army's back-ups were almost certainly not ready to replace or augment the full-timers without significant and lengthy pre-deployment training.

The guard's situation improved somewhat during the Kennedy Administration (1961-63). Kennedy came to office with a vision of a more deployable and ready ARNG. During his first State of the Union address, he presented his goal of training two guard divisions to be deployable within three weeks of notification, while others would deploy within ten weeks—a major change from the 36-week concept in place under the STRAF program.⁸⁷¹

Kennedy's goal to enhance ARNG readiness supported his broader vision of developing an army that could wage a limited war against the Soviet Union and its proxies. Kennedy wanted these reforms because he and his advisors believed that limited wars, like the Korean War, were still possible—if not probable—as the

⁸⁷⁰ "Summary Evaluation of Our Actual and Potential Capabilities to Fulfill Current Military Commitments and Basic Objectives as Outlined in NSC 5906/1," December 1, 1960 [Office of the Special Assistant for National Security Affairs, Special Assistant Series, Presidential Subseries, Box 5, Meetings with President Volume 2 (2)], 3.

⁸⁷¹ CNGB, *Annual Report 1961*, 30.

expanding Soviet nuclear arsenal had made general war highly unlikely.⁸⁷² And the Berlin Crisis, which began in the summer of 1961, seemingly validated these assessments. That summer, Soviet Premier Nikita Khrushchev declared that the Soviet Union would no longer accept NATO occupation of West Berlin, while beginning the construction of the Berlin Wall. But the U.S. Army—and the military in general—was ill-prepared to respond to these provocations, as it was structured, trained, and armed to fight nuclear wars and support homeland defense missions, not for a limited conflict over Berlin.

The crisis also exposed ARNG shortcomings. During the summer of 1961, Secretary of Defense Robert McNamara requested Presidential authorization for activating four ARNG divisions and supporting units—about 150,000 soldiers—to form a strategic reserve that could rapidly deploy to Europe if the crisis escalated.⁸⁷³ The President, however, only authorized DOD to activate two divisions—the 32nd Infantry (WI) and the 49th Armored (TX)—and several smaller USAR and ARNG units, which reported for federal service on 19 September.⁸⁷⁴

McNamara assumed that the 49th and 32nd divisions would be deployable following six to 12 months of stateside training.⁸⁷⁵ But the mobilization proceeded

⁸⁷² Tauschweizer, *The Cold War U.S. Army*, 121.

⁸⁷³ Department of Defense, Memorandum to the President: Military Build-up and Possible Action in Europe, 1, <https://www.jfklibrary.org/Asset-Viewer/Archives/JFKPOF-077-007.aspx> (accessed 23 February 2018).

⁸⁷⁴ CIA, *Berlin Crisis Chronology*, undated 1961, 74, <https://www.cia.gov/library/readingroom/docs/1961-05-01.pdf> (accessed 23 February 2018).

⁸⁷⁵ Department of Defense, Memorandum to the President: Military Build-up and Possible Action in Europe, 1, 8, <https://www.jfklibrary.org/Asset-Viewer/Archives/JFKPOF-077-007.aspx> (accessed 23 February 2018).

slower than anticipated, much to the disappointment of McNamara.⁸⁷⁶ The main cause for delay was that mobilized guard divisions were understrength and lacked key equipment.⁸⁷⁷ Consequently, the divisions had to take time to find and absorb fillers and to acquire equipment before they could conduct full-scale training exercises.

Despite their manning and equipment issues, the mobilized guard divisions reached a combat-ready rating within four months—much faster than in previous conflicts, but slower than the three to 10-week window Kennedy had envisioned initially.⁸⁷⁸ Ultimately, none of the divisions deployed, and they were released from federal service in the summer of 1962.⁸⁷⁹

Following the Berlin Crisis, the Kennedy Administration began crafting a new approach—called Flexible Response—for containing and, if necessary, fighting the Soviet Union. Through Flexible Response, Kennedy aimed to improve the U.S. military’s ability to fight limited wars against the Soviet Union without having to resort to the use of strategic nuclear arms. As Kennedy reported to Congress, “Any potential aggressor contemplating an attack on any part of the free world with any kind of weapons, conventional or nuclear, must know that our response will be

⁸⁷⁶ John Norris, “McNamara Faces Fight Over Guard-Cut Plan,” *Washington Post*, 28 May 1962, A2.

⁸⁷⁷ U.S. Congress, Subcommittee on Preparedness Investigation; Committee on Armed Services. Senate, Proposal to Reline the Army National Guard and the Army Reserve Forces. Part 1, March 1965, 19-20, <https://congressional.proquest.com/congressional/docview/t29.d30.hrg-1965-sas-0011?accountid=14696> (accessed 15 March 2018).

⁸⁷⁸ Doubler, *Civilian in Peace, Soldier in War*, 251.

⁸⁷⁹ *Ibid.*, 252.

suitable, selective, swift and effective.”⁸⁸⁰ In pursuit of these ends, the administration boosted defense spending by \$30 billion between 1961 and 1964, enabling the army to grow from 860,000 soldiers in 1961 to over a million.⁸⁸¹ Increased spending also allowed it to modernize equipment for all sixteen active divisions and six priority guard divisions.⁸⁸² The U.S. Army, meanwhile, revised FM 100-5 in 1962 to include a greater emphasis on limited war.⁸⁸³

To prepare for limited war, the army also abandoned the Pentomic Division structure—designed for the nuclear battlefield—for one better suited for a variety of operating environments. The new structure—the Reorganized Objective Army Divisions (ROAD)—was based on an army study conducted in late 1960 and early 1961 by U.S. Continental Army Command that aimed to restructure divisions for the anticipated battlefields of the 1960s.⁸⁸⁴ The army was mainly concerned with improving its divisions’ ability to fight conventional battles against a mechanized enemy.⁸⁸⁵ Thus, the ROAD divisions, which had an infantry, armor, mechanized, and airborne variant, emphasized flexibility, mobility, and firepower.⁸⁸⁶ And it was more

⁸⁸⁰ U.S. Army Center of Military History, *American Military History Volume II: The United States Army in a Global Era, 1917-2008*, 267.

⁸⁸¹ Tauschweizer, *The Cold War U.S. Army*, 123; U.S. Army Center of Military History, *American Military History Volume II: The United States Army in a Global Era, 1917-2008*, 277.

⁸⁸² Tauschweizer, *The Cold War U.S. Army*, 123.

⁸⁸³ U.S. Army, *FM 100-5: Operations* (Washington, DC: Government Printing Office, 1962), 6-7, 12-13.

⁸⁸⁴ Wilson, *Maneuver and Firepower*, 293.

⁸⁸⁵ U.S. Army Combat Studies Institute, *Sixty Years of Reorganizing for Combat: A Historical Trends Analysis*, 23.

⁸⁸⁶ Tauschweizer, *The Cold War U.S. Army*, 114-15, 117.

flexible than the Pentomic Division in that it reintroduced three brigade headquarters to the division structure; and the division commander could tailor the numbers and types of battalions assigned to those three brigades depending on the mission and environment.⁸⁸⁷ The divisions improved in mobility with the addition of more tanks and trucks; and they improved in firepower with the addition of more machine guns, anti-tank weapons, and tanks.⁸⁸⁸ The army began converting its Pentomic Divisions to the ROAD structure in 1963.⁸⁸⁹

The ROAD division and the Flexible Response doctrine that it supported raised the challenges of soldiering at the tactical level. Junior and mid-ranking officers and NCOs at the battalion-level and below had to be able to think and act more independently as divisions increased their dispersion to limit their vulnerability to tactical nuclear strikes.⁸⁹⁰ Division commanders, meanwhile, had the added responsibility of managing an aviation battalion, in addition to the three brigades and supporting battalions, division artillery, and combat support elements.⁸⁹¹ And commanders could no longer focus solely on building unit readiness for conventional

⁸⁸⁷ Wilson, *Maneuver and Firepower*, 297.

⁸⁸⁸ Tauschweizer, *The Cold War U.S. Army*, 116.

⁸⁸⁹ *Ibid.*, 117, 120.

⁸⁹⁰ *Ibid.*, 119.

⁸⁹¹ Virgil Ney, *Evolution of the U.S. Army Division, 1939-1968* (Fort Belvoir: U.S. Army, 1969), 75.

warfare, as the 1962 version of FM 100-5 placed a greater emphasis on counterinsurgency operations.⁸⁹²

The guard needed to improve its peacetime training standards to keep up with these changes to army doctrine. Although DOD was disappointed by the guard's sluggish response to the Berlin Crisis, Secretary of Defense McNamara believed that reforming the ARNG could enable it to deploy separate brigades and even entire divisions within eight weeks, as shown in Table 3.7.⁸⁹³ Doing so was necessary because McNamara was convinced that the active army would become quickly overtaxed in a limited war against a much larger Soviet army.⁸⁹⁴

That said, Maxwell Taylor, then a special advisor to the President, did not agree with McNamara's plans, thinking that it was impossible to deploy guard divisions and brigades within eight weeks.⁸⁹⁵ And, as the previous two chapters have shown, Taylor's assessments were backed by the historical record, given it took guard divisions years to be ready for the world wars and Korea. Nevertheless, the

⁸⁹² Andrew Krepinevich, *The Army and Vietnam* (Washington, DC: Johns Hopkins University Press, 2009), 39; U.S. Army, *FM 100-5 (1962)*, 2.

⁸⁹³ Robert McNamara, Memorandum for the President: Reorganization of the Army National Guard and Reserves, 07 December 1961, 2, <https://www.jfklibrary.org/Asset-Viewer/Archives/JFKPOF-077-007.aspx> (accessed 23 February 2018); U.S. Congress, Subcommittee on Preparedness Investigation; Committee on Armed Services. Senate, Proposal to Reline the Army National Guard and the Army Reserve Forces. Part 1, March and April 1965, p. 376, <https://congressional.proquest.com/congressional/docview/t29.d30.hrg-1965-sas-0011?accountid=14696> (accessed 16 March 2018).

⁸⁹⁴ OSD, *Annual Report 1969*, p. 114.

⁸⁹⁵ Maxwell Taylor, *Swords and Plowshares: A Distinguished Soldier, Statesman, and Presidential Advisor Tells His Story* (New York: W.W. Norton & Company, 1972), 208-09.

Pentagon continued planning for the eight-week timeframe into the second half of the 1960s.⁸⁹⁶

Table 3.7: National Guard Deployment Timeline - 1965 ⁸⁹⁷	
Unit Type	Weeks of Training*
Air Defense	0
Units to “Roundout” Active Duty Army	4-8
Separate Brigades	5-8
6 Division Force	4-8
Reinforcing Reserve	24
<i>*Note: Does not include time to send out an alert, gather troops at armories, and preparation for overseas movement</i>	

To improve reserve readiness, McNamara planned to downsize and merge the ARNG and USAR into a single entity to reduce manning problems and redundancies between the components. The Berlin Crisis revealed to McNamara that many of the ARNG units mobilized were, in his view, “paper tigers” because most were around 45 percent understrength and had numerous shortfalls in key equipment.⁸⁹⁸ Cutting the overall size of the reserve component—from 700,000 to about 500,000—and merging units could reduce such manning and equipment problems while also saving DOD and estimated \$150 million per year.⁸⁹⁹

⁸⁹⁶ U.S. Congress, Subcommittee on Preparedness Investigation; Committee on Armed Services. Senate, Proposal to Reline the Army National Guard and the Army Reserve Forces, 376.

⁸⁹⁷ Ibid.

⁸⁹⁸ U.S. Congress, Subcommittee on Preparedness Investigation; Committee on Armed Services. Senate, Proposal to Reline the Army National Guard and the Army Reserve Forces. Part 1, March 1965, 12, <https://congressional.proquest.com/congressional/docview/t29.d30.hrg-1965-sas-0011?accountid=14696> (accessed 16 March 2018); Norris, “McNamara Urges Guard-Cut Plan But Governors Stiffen Opposition,” *Washington Post*, 03 July 1962; Robert McNamara, Memorandum for the President: Reorganization of the Army National Guard and Reserves, 07 December 1961, 1-2, <https://www.jfklibrary.org/Asset-Viewer/Archives/JFKPOF-077-007.aspx> (accessed 23 March 2018).

⁸⁹⁹ Robert McNamara, Memorandum for the President: Reorganization of the Army National Guard and Reserves, 07 December 1961, 1-2, <https://www.jfklibrary.org/Asset-Viewer/Archives/JFKPOF-077-007.aspx> (accessed 23 March 2018); U.S. Congress, Subcommittee on

Congress and NGAUS opposed McNamara's plans. Some members questioned whether the merger would undermine reserve readiness due to the loss in personnel as a result of the downsizing; others were concerned that the merger would leave some reservists jobless.⁹⁰⁰ Thus, Congress rejected the merger plan in 1966.⁹⁰¹ It did, however, allow DOD to eliminate the USAR's six maneuver divisions in 1965, freeing up personnel and resources to improve guard division manning and equipment levels.⁹⁰² Moving forward, the ARNG specialized primarily in maintaining maneuver units, whereas the USAR was mainly responsible for combat support, as it is today.⁹⁰³

Although the merger plan failed, DOD was able to enact other reforms in the early and mid-1960s that almost certainly improved ARNG readiness. It, for instance, increased the number of full-time staff assigned to the ARNG by 50 percent.⁹⁰⁴ Full-time staff members were important because they took care of a unit's administrative burdens between drill weekends, thereby allowing the bulk of the unit to focus on their core training tasks during drills. The ARNG also began re-

Preparedness Investigation; Committee on Armed Services. Senate, Proposal to Reline the Army National Guard and the Army Reserve Forces, 2.

⁹⁰⁰ Staff Writers, "McNamara merger of army reserve fails to get policy board's backing," *The Washington Post*, 24 December 1964, A9; Staff Writers, "Merger of guard, reserve seen killed for this year," *The Washington Post*, 12 August 1965, A2; U.S. Congress, Subcommittee on Preparedness Investigation; Committee on Armed Services. Senate, Proposal to Reline the Army National Guard and the Army Reserve Forces, 3.

⁹⁰¹ Doubler, *Civilian in Peace, Soldier in War*, 255.

⁹⁰² U.S. Army Center of Military History, *American Military History Volume II: The United States Army in a Global Era, 1917-2008*, 283.

⁹⁰³ Tauschweizer, *The Cold War U.S. Army*, 133.

⁹⁰⁴ John Norris, "New Look Pays Off for Reserves, Guard," *The Washington Post*, 02 December 1963, A1.

organizing according to the ROAD structure between 1962 and 1963; and guard units received their first M-60 main battle tanks, M-113 APCs, and self-propelled artillery during the same period.⁹⁰⁵

More importantly, the ARNG improved its training standards in the mid-1960s. Training hours increased from 8 hours a month to 16 starting in 1964.⁹⁰⁶ This increase, according to the CNGB in 1965, “greatly advanced the training” of ARNG units.⁹⁰⁷ Meanwhile, the 1964 Reserve Enlistment Program (REP) allowed guardsmen to serve beyond their initial six months of active duty entry training, if their advanced schools required it.⁹⁰⁸ What that meant was that guardsmen could more easily attend technically advanced training courses for field such as signals intelligence that could last up to a year or more. Additionally, in 1964, 8,000 guardsmen participated alongside the active duty army in the Desert Strike exercise in the Mojave Desert, which was the largest peacetime exercise for the U.S. Army since WWII.⁹⁰⁹ Collectively, these reforms set the ARNG down the path to becoming the operational reserve that we see today.

⁹⁰⁵ CNGB, *Annual Report 1963*, 9; CNGB, *Annual Report 1964*, 42.

⁹⁰⁶ Subcommittee on Preparedness Investigation; Committee on Armed Services. Senate, Proposal to Reline the Army National Guard and the Army Reserve Forces, 409.

⁹⁰⁷ Subcommittee on Preparedness Investigation; Committee on Armed Services. Senate, Proposal to Reline, 376.

⁹⁰⁸ CNGB, *Annual Report 1964*, 29.

⁹⁰⁹ Ibid., 36; Kenneth Drylie, *The National Training Center and Fort Irwin* (Charleston: Arcadia, 2018), 25.

Table 3.8: The ARNG Size and Budget (1962-1972) ⁹¹⁰		
Date	Size	Budget
1962	405,000	\$429,469,000
1964*	381,546	\$435,500,000
1966	420,924	\$578,700,000
1968	389,182	\$589,000,000
1970	409,192	\$716,900,000
1972	387,539	\$884,915,000
*The decline in size of the ARNG was due in part to rising overhead costs associated with higher recruitment standards		

However, the Vietnam War reversed much of this progress. The U.S. Army had an advisory role in Vietnam dating back to the 1950s in support of its French allies. But rising insurgent violence in the early 1960s led the United States to deploy 16,000 troops to Vietnam by late 1963.⁹¹¹ The first combat battalion arrived two years later; and U.S. involvement rapidly transitioned from an advisory role to direct combat.⁹¹² And despite overwhelming advantages in firepower and technology, the United States failed to break the North Vietnamese will to fight. The U.S. Army, moreover, was, in the words of historian Andrew Krepinevich Jr., “neither trained nor organized to fight effectively in an insurgency conflict environment,” as it was designed for conventional war against a conventional adversary, namely the Soviet Union.⁹¹³

⁹¹⁰ CNGB, *Annual Report 1962*, 6; CNGB, *Annual Report 1963*, 9; CNGB, *Annual Report 1964*, 5-6; CNGB, *Annual Report 1966*, 8, 22; CNGB, *Annual Report 1968*, 28-29; CNGB, *Annual Report 1970*, 22, 27; CNGB, *Annual Report 1972*, 21, 27; Norris, “New Look Pays Off for Reserves, Guard,” A1.

⁹¹¹ Krepinevich, *The Army and Vietnam*, 3.

⁹¹² Ibid.

⁹¹³ Ibid., 4.

Initially, DOD planned to send the ARNG and the USAR to reinforce active units in Vietnam.⁹¹⁴ But President Lyndon Johnson refused to authorize the deployment of guardsmen, although over 9,000 deployed as individual augmentees voluntarily; and nearly 100 were killed in action.⁹¹⁵ Johnson feared a mass mobilization of the guard could cause the Soviets or Chinese to mobilize their reserves and take on a more direct role in supporting the insurrection in South Vietnam.⁹¹⁶ Johnson also wanted to avoid a fight with Congress; activating the ARNG would have required congressional approval, possibly triggering a public debate on the merits of the war.⁹¹⁷ Furthermore, General William Westmoreland—the Commander of U.S. Military Assistance Command, Vietnam—had promised President Johnson he could win the war without a major mobilization of reserve forces.⁹¹⁸ And even if he did mobilize the reserves, the ARNG was limited to just one year of federal service; Westmoreland predicted the war would last longer than that.⁹¹⁹

Keeping the ARNG stateside seriously undermined its quality and reputation. During the war, it became a haven for men hoping to avoid service in Vietnam, as the

⁹¹⁴ Millet, Maslowski, and Feis, *For the Common Defense*, 525.

⁹¹⁵ The National Guard, “Remembering the Vietnam War: 50th Commemoration,” *The National Guard Bureau*, <https://www.nationalguard.mil/Features/2016/Vietnam/> (accessed 04 April 2020).

⁹¹⁶ Doubler, *Civilian in Peace, Soldier in War*, 257.

⁹¹⁷ Millet, Maslowski, and Feis, *For the Common Defense*, 525.

⁹¹⁸ *Ibid.*

⁹¹⁹ *Ibid.*

1967 Selective Service Act exempted guardsmen from the draft.⁹²⁰ In fact, as many as 90 percent of new guard enlistees in the late 1960s joined to avoid conscription.⁹²¹ And when the threat of the draft began to fade by 1971, many stopped attending drill, refused to work during drill, and did not re-enlist.⁹²² Consequently, by the summer of 1972, the guard was understrength by 40,000 personnel and likely had thousands of more soldiers on its books who were absent without leave (AWOL).⁹²³ And the ARNG's heavy-handed tactics in response to anti-war and civil rights protests during the 1960s tainted its public image, likely undermining its ability to recruit replacements.⁹²⁴

To support the war and to maintain a credible deterrent to Soviet aggression in Europe, DOD also had to cut into the guard's budget for training and equipment.⁹²⁵ Such cuts undermined the guard's ability to train, as NGB complained in its 1970 annual report.⁹²⁶ State governors, meanwhile, frequently called upon their ARNG units to respond to civil unrest in the late 1960s. Due to these stateside operations

⁹²⁰ Millet, Maslowski, and Feis, *For the Common Defense*, 526.

⁹²¹ Richard Lock-Pullan, "An Inward-Looking Time: The United States Army, 1973-1976." *The Journal of Military History*, Vol. 67, No. 2 (April 2003), 492.

⁹²² John Conaway and Jeff Nelligan. *Call Out the Guard!: The Story of Lieutenant General John B. Conaway and the Modern Day National Guard* (Paducah: Turner Publishing, 1997), 52-53.

⁹²³ Staff Writers, "Pentagon Acts on Recruiting for Reserves," *The Washington Post*, 09 June 1972, A23.

⁹²⁴ Bob Horton, "Army Acts to Upgrade Guard and Reserve," *The Washington Post*, 04 February 1969, A6.

⁹²⁵ Doubler, *Civilian in Peace, Soldier in War*, 258.

⁹²⁶ CNGB, *Annual Report 1970*, 7.

and declining budgets, most guard units could only train at the platoon to the company-level.⁹²⁷ Consequently, DOD could no longer assume guard divisions and brigades could deploy within two months of activation.

Section 2: The Dawn of the Total Force Era

In the wake of the Vietnam War, DOD planners searched for creative ways to rebuild the capabilities and reputation of the entire U.S. military to maintain a credible conventional deterrent to a rapidly modernizing Soviet army. One way they did so was by turning to the ARNG as a cost-effective means to reinforce and support forward deployed active duty units in Europe and other theaters of operation.

But the ARNG was not well-positioned to fill that role. During the Vietnam War, most guard units conducted little to no training above the company-level. And it faced a severe recruiting and retention crisis, as the end of the draft had eliminated one of the main reasons men joined the guard in the late 1960s.⁹²⁸ Those who still valued military service, meanwhile, likely questioned whether the guard was the right place for them.⁹²⁹ As Will Tankersley, the Assistant Secretary of Defense for Reserve Affairs, observed at the time, “People thought of [the guard] as a bunch of old, fat men telling war stories or as draft dodgers...”⁹³⁰

⁹²⁷ CNGB, *Annual Report 1970*, 7, 32.

⁹²⁸ CNGB, *Annual Report 1976*, 27.

⁹²⁹ Lewis Sorley, Lewis. *Thunderbolt: From the Battle of the Bulge to Vietnam and Beyond: General Creighton Abrams and the Army of His Times* (New York: Simon & Schuster, 1992), 184-85.

⁹³⁰ Martha Hamilton, “Recruiting: New Work for Guard, Reserves,” *The Washington Post*, 27 January 1977, DC1.

With its reputation sullied, guard recruitment and retention and its ability to train effectively plummeted.⁹³¹ Officer shortages were particularly acute. For example, in 1975, state OCS programs anticipated graduating 1,221 officers—far less than its goal of 2,200.⁹³² Resolving these personnel issues took time and attention away from training. One senior guard leader recalled how the environment at NGB was as if “maintaining strength had become an end in itself, while training and equipping had become peripheral issues.”⁹³³

DOD could not allow the ARNG to fall into complete disrepair due to personnel shortages that resulted in part from the Nixon Administration’s decision to end the draft and move to an all-volunteer force. The Pentagon, with urging from President Johnson, began investigating the feasibility of an all-volunteer force as early as 1963 due in part to rising political pressures in Congress to reform the Selective Service.⁹³⁴ The need for personnel to support Vietnam temporarily halted these debates.⁹³⁵ Mass protests against the draft during the Vietnam War, however, reignited calls to reform the Selective Service and made it a campaign issue during the 1968 Presidential Election.⁹³⁶

⁹³¹ CNGB, *Annual Report 1976*, 27.

⁹³² CNGB, *Annual Report 1975*, 26.

⁹³³ Conaway, *Call out the Guard*, 68.

⁹³⁴ Bernard Rostker, *I Want You! The Evolution of the All-Volunteer Force* (Washington, DC: The RAND Corporation, 2006), 3.

⁹³⁵ *Ibid.*, 29.

⁹³⁶ *Ibid.*, 4.

While on the campaign trail, the Republican presidential candidate Richard Nixon exploited popular discontent regarding the draft and campaigned on promises to transition to an all-volunteer force.⁹³⁷ Upon assuming office in 1969, Nixon fulfilled his promises and appointed a 15-member commission headed by Thomas S. Gates Jr., the Secretary of Defense for Eisenhower, to examine the feasibility of ending the draft and shifting to an all-volunteer force. A year later, the commission recommended ending peacetime conscription, citing how forcing men into service violated their freedom and undermined the quality of the armed forces by filling the military's ranks with soldiers who were unwilling to serve.⁹³⁸ Nixon accepted the findings, and the all-volunteer force became law in September 1971.⁹³⁹

The army, however, depended on conscripts to fill combat arms billets, which were overwhelmingly made up of draftees (only about 4 percent of those who volunteered went to the combat arms).⁹⁴⁰ Finding volunteers to replace conscripts was particularly challenging in the 1970s—a period in which the U.S. public held military service in low regard. A 1973 Harris Poll, for instance, revealed that the American

⁹³⁷ Staff Writers, “HHH calls Nixon irresponsible on draft,” *The Washington Post*, 18 August 1968, A15.

⁹³⁸ The Gates Commission, *The Report of the President's Commission on the All-Volunteer Force* (Washington, DC: Government Printing Office, 1970), vii, 5-6; Rostker, *I Want You! The Evolution of the All-Volunteer Force*, 4.

⁹³⁹ Ibid.

⁹⁴⁰ U.S. Army Center of Military History, *American Military History Volume II: The United States Army in a Global Era, 1917-2008*, 375.

public viewed military service as an undesirable career choice.⁹⁴¹ In fact, by the end of 1973, the army was short around 14,000 soldiers.⁹⁴²

Stabilizing the active army's strength and building an all-volunteer force imposed new financial burdens on the army. With its budget shrinking following the Vietnam War—down from \$160 billion in 1968 to \$100 billion in 1976—the army had to invest more resources into personnel.⁹⁴³ It had to offer more pay, better housing, and re-enlistment incentives to attract and retain volunteers, as opposed to conscripts, who had little choice but to serve. In fiscal year 1973, the Pentagon's budget saw an increase of \$1.8 billion in personnel costs to improve the quality of life for volunteers.⁹⁴⁴ These rising costs consumed around 45 percent of the defense budget in 1973, compared to 32 percent the year before.⁹⁴⁵

Table 3.9 Rising U.S. Military Personnel Costs (in billions) ⁹⁴⁶				
	1964	1972	1974	1976
Military	13.5	23.6	24.4	26.6
Civilian	7.7	13.5	14.2	16.5
Retired	1.2	3.9	5.1	7.3

The shrinking size of the army was alarming because in the 1970s the armed forces of the Soviet Union—buoyed by booming oil profits—were expanding and

⁹⁴¹ See 1973 Harris Poll results listed in Robert Scales, *Certain Victory* (London: Brassey's, 1994), 6-7.

⁹⁴² U.S. Army Center of Military History, *American Military History Volume II: The United States Army in a Global Era, 1917-2008*, 376.

⁹⁴³ OSD, *Annual Defense Department Report* (1978), 102.

⁹⁴⁴ OSD, *National Security Strategy of Realistic Deterrence: Secretary of Defense Melvin R. Laird's Annual Defense Department Report FY 1973* (Washington, DC: Government Printing Office, 1972), 60.

⁹⁴⁵ *Ibid.*, 32.

⁹⁴⁶ *Ibid.*, 282.

modernizing.⁹⁴⁷ Between 1964 and 1977, the Soviet armed forces grew by nearly a million men, giving it a two to one advantage in personnel over the downsized post-Vietnam U.S. military.⁹⁴⁸ Soviet tank production—including newer T-62 and T-72 models—also rose from 3,100 in 1966 to 4,250 in 1970.⁹⁴⁹ These newer model tanks matched and exceeded the capabilities of the U.S. M-60 main battle tank.⁹⁵⁰ Soviet “deep battle” concepts, moreover, provided its forces the tactics and methods to enable the Warsaw Pact to coordinate its massive armies for a rapid invasion of Western Europe that—in theory—could occur with little warning and defeat NATO in a matter of days or weeks.⁹⁵¹ And unlike before, the U.S. Army could not plan to use nuclear arms alone to deter and defeat the rising Soviet threat.

In 1970 and 1974, President Nixon provided guidance for how U.S. military operations should unfold in the event of war with the Soviets. In a series of top secret memos to senior U.S. military, diplomatic, and intelligence officials, Nixon called for NATO to develop “a credible conventional defense posture to deter and, if necessary, defend against [a] conventional attack by the Warsaw Pact forces.”⁹⁵² U.S. and

⁹⁴⁷ Gaddis, *The Cold War*, 212.

⁹⁴⁸ OSD, *Fiscal Year 1978 Annual Defense Department Report*, 9.

⁹⁴⁹ Leffler, *For the Soul of Mankind*, 238; TRADOC, *The Worldwide Equipment Guide*, 4-15.

⁹⁵⁰ This is according to DuPuy as described by Saul Bronfield, “Fighting Outnumbered: The Impact of the Yom Kippur War on the U.S. Army,” *The Journal of Military History*, 71, no 2 (2007), 476.

⁹⁵¹ According to the U.S. Army’s main publication on Soviet doctrine, Soviet forces planned to win the war within 15-21 days. U.S. Department of the Army, *Soviet Army Operations* (Washington, DC: Government Printing Office, 1978), 3-5; U.S. Army, *FM 100-5 (1976)*, 2-32.

⁹⁵² President Richard Nixon to the Secretary of State, the Secretary of Defense, Director of OEP, Director of CIA, and Director of Arms Control and Disarmament Agency, 25 November 1970, The National Security Council, National Security Decision Memorandum 95: U.S. Strategy and Forces

NATO forces, moreover, needed to be ready to wage a conventional defense for up to 90 days without the loss of substantial amounts of friendly territory.⁹⁵³ In short, Nixon essentially upended the U.S. defense plans of the 1950s and 60s that envisioned a heavy reliance on tactical nuclear weapons.

But the U.S. Army lacked the advanced equipment, tactical concepts, and personnel to deter or defeat Soviet forces with conventional means alone. U.S. Army doctrine had not been revised since 1968; and it had not accounted for improvements to Soviet arms and warfighting concepts.⁹⁵⁴ Vietnam and the move to the all-volunteer force model also caused a decline in the size and quality of the active army and the ARNG, as morale plummeted, recruitment collapsed, and disciplinary issues skyrocketed. In short, Nixon lacked the military means to achieve his strategic ends.

One way that DOD compensated was by issuing the 1973 Total Force Policy (TFP)—a policy that would revolutionize how the U.S. military integrated reserve forces into its war plans. Although issued by Secretary of Defense James Schlesinger (1973-75), it was a product of Secretary of Defense Melvin Laird (1969-73) who drafted the policy in response to Nixon's 1970 decision to move to an all-volunteer force.⁹⁵⁵ Laird believed that the reserve components of the U.S. military could

for NATO, Nixon Library and Museum, 1, http://www.nixonlibrary.gov/virtuallibrary/documents/nsdm/nsdm_095.pdf (accessed 01 March 2015).

⁹⁵³ Ibid., 2.

⁹⁵⁴ Last publication version of FM 100-5 (Operations) issued in 1968. Next version issued in 1976.

⁹⁵⁵ This decision came as the result of the Gates Commission's 1970 Report that recommended ending conscription. See the Gates Commission, *The Report of the President's Commission on an All-Volunteer Force*.

provide an affordable source of personnel to fill gaps in the active military's ranks following the end of peacetime conscription.⁹⁵⁶ He, therefore, directed his service chiefs to plan for their respective reserve components to serve as the "initial and primary source for augmentation of the active forces in any future emergency requiring a rapid and substantial expansion of the active forces."⁹⁵⁷

The TFP—combined with Kennedy's previous efforts to improve the military's ability to wage limited war—transformed how the U.S. Army employed the ARNG. Because the army was planning to fight the Soviets conventionally and with troops forward deployed in Europe, it could no longer plan for a lengthy reserve mobilization period. Instead, reservists and guardsmen had to be ready to deploy to Europe or other theaters within weeks; otherwise, a large and technologically advanced Soviet army could rapidly overrun NATO forward defenses, potentially forcing the President to authorize a massive employment of nuclear arms to halt Soviet advances. The guard, therefore, had to become an operational reserve—one available at the outset of a crisis or even during the shaping phases before a conflict.

An early proponent of an operational guard was CSA Creighton Abrams (1972-74), a decorated WWII armor officer and successor to General Westmoreland as commander of U.S. forces in Vietnam. At the time, Abrams was seeking to grow the army from 13 divisions to 16 to compensate for the growing size of the Warsaw

⁹⁵⁶ OSD, Memorandum: Support for Guard and Reserve Forces, 21 August 1970.; Conaway, *Call out the Guard*, 46-47.

⁹⁵⁷ Office of the Secretary of Defense, *Memorandum: Support for Guard and Reserve Forces*, 21 August 1970; Conaway, *Call out the Guard*, 346-47.

Pact armies.⁹⁵⁸ But budgetary shortfalls stymied those plans.⁹⁵⁹ Undeterred, Abrams turned to the ARNG's 21 maneuver brigades and eight divisions to "round out" new active divisions.⁹⁶⁰ Abrams also wanted to draw the ARNG closer into U.S. defense plans and operations to ensure the American people were more invested in future wars, unlike in Vietnam, considering guard units were embedded in local communities throughout the United States.⁹⁶¹

Abrams and his successors devised the 1973 Roundout Program to "roundout" new active duty divisions. It did so by adding one guard maneuver brigade to each newly formed army division. At the same time, the active army freed personnel by eliminating around two-thirds of its combat support capabilities, placing them in the USAR.⁹⁶² With the additional personnel, the army stood up six infantry and armor brigades, forming three divisions, each of which had two active brigades and one guard.⁹⁶³ The 29th Brigade of the Hawaii ARNG was the first unit to participate in this program with the 25th Infantry Division in 1973. Over the next three years, the

⁹⁵⁸ Stephen Duncan, *Citizen Warriors: America's National Guard and Reserve Forces & the Politics of National Security* (New York: Presidio, 1997), 144-45.

⁹⁵⁹ Ibid.

⁹⁶⁰ U.S. Department of the Army, *Department of the Army Historical Series: Fiscal Year 1974* (Washington, DC: Center of Military History, 1978), 3.

⁹⁶¹ U.S. Army Center of Military History, *American Military History Volume II*, 380. But as other historians have shown, the main reason for the TFP was to maximize manpower now that the US could no longer rely on conscription and to compensate for decreased budgets in the 1970s. For an example of this line of argument, see James Carafano, "Total Force Policy and the Abrams Doctrine: Unfulfilled Promise, Uncertain Future," *The Heritage Foundation*, 18 April 2005.

⁹⁶² Duncan, *Citizen Warriors*, 144-45; U.S. Army Center of Military History, *American Military History Volume II*, 380.

⁹⁶³ For changing count of U.S. divisions, see Trauschweizer, *The Cold War U.S. Army*, 244.

256th Infantry Brigade of the Louisiana ARNG integrated with the 5th Infantry (Mechanized) Division, and the 41st Infantry Brigade of the Oregon ARNG joined the 7th Infantry Division.⁹⁶⁴ The Roundout Program expanded in the 1980s, with the addition of eight Roundouts (one came from the USAR), allowing the active army to reach 18 divisions.⁹⁶⁵

While standing up new divisions, the army also revised its doctrine and training methods. Heading this effort was U.S. Army Training and Doctrine Command (TRADOC). Formed in 1973, TRADOC was the brainchild of CSA Abrams, who envisioned the organization leading the army's development of new doctrine and training concepts.⁹⁶⁶ In particular, Abrams wanted TRADOC to revise the 1968 edition of FM 100-5 to improve the army's ability to meet Nixon's strategic intent for containing a Warsaw Pact attack primarily with conventional means.⁹⁶⁷

To lead TRADOC, Abrams turned to Lt. General William DePuy, a hardened veteran of the Second World War and Vietnam. DePuy came to TRADOC in 1973 with a set of assumptions regarding what the army's new doctrine needed to look like. In a 1973 briefing to newly commissioned infantry officers at Ft. Benning, GA, DePuy laid out these assumptions and his vision for moving forward. He started his briefing with a discussion of the WWII U.S. Army. That army, he conceded, was

⁹⁶⁴ James Brady, "Ready to Serve?" The 48th, 155th, and 256th Brigades and the Roundout Concept During Operations Desert Shield and Desert Storm (MA Thesis, U.S. Army Command and General Staff College, 2007), 5-6.

⁹⁶⁵ Ibid.

⁹⁶⁶ Bronfield, "Fighting Outnumbered," 470.

⁹⁶⁷ See discussion in Lock-Pullan, "An Inward-Looking Time," 488.

“not very good.” In fact, he thought “they were quite awful” compared to their German adversaries.⁹⁶⁸ And he experienced that incompetence firsthand as a Captain in the U.S. Army during the invasion of France. DePuy’s division, the 90th, was “a killing machine—of our own troops,” he recalled, having lost all its infantrymen in combat during the invasion and subsequent operations.⁹⁶⁹

DePuy knew that losses like the 90th suffered in Normandy were unacceptable in the 1970s. They were unacceptable because he believed the next war—presumably with the Soviets—would be “short, violent, and important...” which mean there would be little time to recover from early defeats.⁹⁷⁰ The likelihood of another protracted counterinsurgency campaign, like Vietnam, seemed low to him, given the political atmosphere in the United States.⁹⁷¹ The Nixon Doctrine, moreover, made it official policy to stay out of foreign conflicts outside of Europe. He also knew that a war of attrition like the Second World War was unlikely. The United States did not have the infrastructure for that type of war in 1973, especially with the end of the draft.⁹⁷² Instead, he envisioned that the U.S. could compete with the Soviets by developing a qualitative advantage to offset Soviet quantitative advantages. “One American infantry battalion,” DePuy stressed to his

⁹⁶⁸ Briefing by LTG DePuy at Fort Polk, LA, 7 June 1973, reprinted on page 59 of Robert Swain, *Select Papers of General William E. DuPuy* (Ft. Leavenworth, KS: U.S. Army Command and General Staff College, 1995).

⁹⁶⁹ Thomas Ricks, *The Generals* (New York: Penguin Books, 2012), 2.

⁹⁷⁰ Briefing by LTG DePuy at Fort Polk, LA, 7 June 1973, reprinted on page 59 of Swain, *Select Papers of General William E. DuPuy*.

⁹⁷¹ Ibid.

⁹⁷² Ibid.

audience of young infantry officers, “has to be worth five of theirs....”⁹⁷³ The product of that vision was the 1976 revision of FM 100-5.

The 1976 version of FM 100-5 aimed to provide the army with the tactical concepts to “win the first battle” in a highly lethal, short war against the Soviet Union in Europe.⁹⁷⁴ Historically, the U.S. Army mobilized for war at a low state of readiness, often losing its first major battles, like Kasserine Pass (February 1943) or Task Force Smith at Osan in Korea (July 1950). But in those conflicts, the Americans had the luxury of time and space to methodically build and improve a massive army that could recover and learn from early defeats and ultimately prevail in a long war of attrition.

The army could not rely on such a formula in the 1970s. For one, the Soviet military vastly outnumbered NATO forces in Europe; and its mechanized and armored divisions had the means and methods to overrun forward deployed U.S. forces in a matter of weeks. What is more, over the previous decade, it had developed weapons systems, such as the T-72 main battle tank, that, FM 100-5 conceded, were “generally as effective as our own.”⁹⁷⁵ Such weapons equipped with improved fire control computers and optics could inflict heavy losses in a very short period, as the Israelis learned in a surprise attack by Soviet-armed Egyptian and

⁹⁷³ Ibid.

⁹⁷⁴ U.S. Army, *FM 100-5 (1976)*, 1-1.

⁹⁷⁵ Ibid.

Syrian forces in the 1973 Yom Kippur War.⁹⁷⁶ In short, “the first battle of [the] next war could well be [the] last,” as FM 100-5 warned in its opening chapter.⁹⁷⁷

To survive and thrive on this highly lethal battlefield, FM 100-5 laid out a concept for an “active defense” to preserve U.S. Army formations and delay and degrade its opposing forces.⁹⁷⁸ Divisions and brigades would forward deploy with little tactical depth, relying on a strong screening force ahead of them to detect and degrade the advance guard and main body of a Soviet attack.⁹⁷⁹ Once the main body of the Soviet forces broke through the screening force, U.S. mechanized infantry and armor units would fight a mobile defense, shifting to positions protected by cover and concealment from natural terrain and manmade obstacles.⁹⁸⁰ As opportunities emerged, U.S. mechanized and airmobile units would concentrate and strike the Soviets in vulnerable locations such as their flanks and rear, disrupting and ultimately defeating the attack, as the Israelis did against the Egyptians and Syrians in the 1973 Yom Kippur War (see chapter 5).⁹⁸¹

The Active Defense doctrine required the army to revolutionize how it trained to ensure individual soldiers and collective units were ready to fight on day one of a war. Prior to the 1970s, army training at the individual and collective level lacked

⁹⁷⁶ Ibid., 1-1, 2-2.

⁹⁷⁷ Ibid., 1-1.

⁹⁷⁸ Lock-Pullan, “An Inward-Looking Time,” 506.

⁹⁷⁹ U.S. Army Center of Military History, *American Military History Volume II*, p. 382.

⁹⁸⁰ U.S. Army, *FM 100-5 (1976)*, 3-4.

⁹⁸¹ Ibid., 3-5.

rigor. Units did not train on collective tasks, such as infantry platoon attack, to a specified standard; rather, they trained for a set amount of hours on a task based on how a particular instructor interpreted army doctrine.⁹⁸² TRADOC, therefore, decided to set standards for each collective task and created the Army Training and Evaluation Program (ARTEP) to determine a unit's ability to meet those standards. Meanwhile, at the individual soldier-level, TRADOC created the Skills Qualification Test (SQT) that tested a soldier's basic knowledge in their military occupation.⁹⁸³ Thus, soldiers and units as a whole started to train to standard, rather than time. And all units and individuals in the army—to include guardsmen—had to meet these standards.⁹⁸⁴

TRADOC, however, lacked ranges large enough for maneuver brigades to practice active defense.⁹⁸⁵ To address this challenge, DePuy and his successor, General Paul Gorman, planned to develop National Training Centers (NTCs) at sites large enough to enable brigade-sized maneuver and live-fire exercises.⁹⁸⁶ Their successor, General Donn Starry, who commanded TRADOC from 1977 to 1981, turned these plans into reality, establishing NTC at Fort Irwin, California, in 1980.

⁹⁸² Anne Chapman, *The Army's Training Revolution, 1973-1990* (Ft. Monroe: TRADOC, 1994), 3.

⁹⁸³ Ibid. 7.

⁹⁸⁴ For an example and a discussion on it see the transcript of MG PF Gorman, BG MG Thurman, and BC CJ Wright's 13 April 1976 briefing on "Training Support for Reserve Components," 5, which is available at U.S. Army Combat Studies Institute (CSI) Press digital archive of "The Papers of Paul F. Gorman," <https://cgsc.contentdm.oclc.org/digital/collection/p16040coll10> (accessed 27 March 2021).

⁹⁸⁵ U.S. Department of the Army, *Department of the Army Historical Series: Fiscal Year 1978* (Washington, DC: Center of Military History, 1980), 28.

⁹⁸⁶ Chapman, *The Army's Training Revolution, 1973-1990*, 9.

For the rest of the Cold War, all U.S. Army combat brigades and battalions cycled through NTC, where they engaged in simulated battles against full-time role players, known as the Opposing Force (OPFOR), who fought according to the tactics of the Soviet armed forces. These rotations allowed the army to test new doctrine and to gauge how well its units had been able to put it into practice.

The ARNG also had to live up to these higher standards, but with a fraction of the time to train and resources. To compensate, DOD and NGB coordinated to improve ARNG equipment and to integrate it more closely with active duty counterparts. Throughout the 1970s, the guard received newer equipment and upgrades to its existing stocks to make it more interchangeable with the active army.⁹⁸⁷ Integration with the active army also improved through the Roundout Program and through the Affiliate Program, which paired guard and reserve battalions with an active duty counterpart for mentorship and training support. By 1976, 81 ARNG battalions had such an affiliate.⁹⁸⁸ The guard also began participating in major exercises, to include the army's premier annual exercise, REFORGER (Return of Forces to Germany), which simulated a rapid reinforcement of West Germany to defend against a Soviet attack.⁹⁸⁹ Through such programs and training, the army could ensure guard units better understood what their wartime roles and responsibilities. And army leadership could be more confident that guard units could

⁹⁸⁷ Doubler, *Civilian in Peace, Soldier in War*, 281.

⁹⁸⁸ CNGB, *Annual Report 1976*, 1.

⁹⁸⁹ CNGB, *Annual Report 1978*, 29; CNGB, *Annual Report 1980*, 34.

replace or augment active ones because they were beginning to mirror the active army in terms of equipment and training more closely.

Personnel shortages, however, persisted. To address this issue, Congress authorized the ARNG to establish a full-time recruitment cadre—about 1,750 personnel—in 1978, which helped stabilize guard strength within just a year.⁹⁹⁰ These recruiters, moreover, benefited greatly from two shifts in recruitment practices. First, they started offering recruits \$1,500 cash bonuses and \$2,000 in educational aid—aid that would have likely been very appealing to young Americans at a time of an economic downturn.⁹⁹¹ And, second, they started recruiting more women and minorities.⁹⁹² In 1974, for instance, the guard only had 33,000 minorities and about 6,700 women in its ranks. By the end of the decade, those numbers rose to 90,083 and 16,868, respectively.⁹⁹³

Despite these improvements, the ARNG struggled to build and maintain readiness. A 1976 Congressional Budget Office (CBO) report found that 43 percent of ARNG units had a C4 (not ready) rating due to personnel and equipment issues.⁹⁹⁴ And the CBO worried that these ratings indicated that the ARNG would be unable to

⁹⁹⁰ CNGB, *Annual Report 1978*, 21.

⁹⁹¹ CNGB, *Annual Report 1980*, 27; Staff Writers, “Army to offer bonuses for joining the reserves,” *New York Times*, 08 December 1978.

⁹⁹² CNGB, *Annual Report 1975*, 23.

⁹⁹³ CNGB, *Annual Report 1976*, 31; CNGB, *Annual Report 1978*, 17; CNGB, *Annual Report 1975*, 30; CNGB, *Annual Report 1980*, 31.

⁹⁹⁴ CBO, *Improving the Readiness of the Army Reserve and National Guard: A Framework for Debate* (Washington, DC: Government Printing Office, 1978), 16-17.

deploy to Europe within 90 days of activation, as defense officials planned.⁹⁹⁵ Senior defense officials, including the Secretary of Defense, shared these concerns. A year earlier, Secretary of Defense Schlesinger complained that “even the highest priority Army reserve brigades do not become available for deployment as early as we would like.”⁹⁹⁶

A mobilization exercise in 1976 highlighted these readiness problems. During the exercise, the active army tested the ability of select ARNG units to deploy within 30 days of activation—a task most failed.⁹⁹⁷ The main reason for their failures was that the evaluated units had done a poor job screening their rosters for personnel who could not deploy for medical reasons—a problem that would re-emerge in the lead-up to Operation Desert Storm.⁹⁹⁸ An after action review also noted the disparity in time to train between guard units (about 38 days a year) and active duty ones (about 200 days).⁹⁹⁹ Administrative tasks, moreover, consumed many of these training days for guard units, reducing actual training time in mission essential tasks to around 22 to 28 days a year.¹⁰⁰⁰

Having only 22 to 28 training days a year seriously compromised the ability of the ARNG to develop units capable of fighting to the high standards of Active

⁹⁹⁵ Ibid., 11.

⁹⁹⁶ Duncan, *Citizen Warriors*, 144.

⁹⁹⁷ CBO, *Improving the Readiness of the Army Reserve and National Guard*, 18.

⁹⁹⁸ Ibid., 18.

⁹⁹⁹ Ibid., 20.

¹⁰⁰⁰ Ibid.

Defense doctrine. Army studies from 1978, for instance, showed that soldiers needed continuous practice—more than the once a year of gunnery guardsmen get—to achieve the marksmanship standards expected by Active Defense.¹⁰⁰¹ What is more, guard units could not find enough time to train their units in battalion, brigade, and division-level tasks, opting instead to focus on individual to company-level tasks.¹⁰⁰² What that meant was that upon mobilization guard units would have to conduct pre-deployment training on those higher-level tasks or deploy to combat without having completed such critical training.

Making matters worse, equipment and personnel issues plagued the ARNG late into the 1970s. Although the ARNG received new equipment throughout the decade, the active army in 1978 had to transfer some modernized artillery and support equipment from the guard to higher priority units in Europe.¹⁰⁰³ Personnel shortages, meanwhile, deprived the ARNG of key technicians who were necessary for maintaining and operating the ARNG's increasingly advanced equipment and technical support systems.¹⁰⁰⁴ Many guardsmen were also overage. As one senior

¹⁰⁰¹ See General Gorman's "Posture Statement of the Chief of Staff of the Army, 1977," 2-3. Available at U.S. Army Combat Studies Institute (CSI) Press digital archive of "The Papers of Paul F. Gorman."

¹⁰⁰² CNGB, *Annual Report 1975*, 33; CNGB, *Annual Report 1978*, 28.

¹⁰⁰³ Bernard Weinraub, "Ill-prepared National Guard Short of Men and Weapons," *New York Times*, 15 July 1979, E3; Staff Writers, "Guard and Reserve Losing Equipment to Units in Europe," *New York Times*, 17 January 1978, 36.

¹⁰⁰⁴ Weinraub, "Ill-prepared National Guard Short of Men and Weapons," E3.

guard officer from the time conceded, “We realize there are a lot of 40-year-old squad leaders who couldn’t go to combat.”¹⁰⁰⁵

The ARNG’s struggles drew the attention of national media and internal government watchdog groups in the late 1970s.¹⁰⁰⁶ In a 1977 report, the Government Accountability Office (GAO), an agency that provides auditing, evaluation, and investigative services for Congress, assessed that the TFP was “still far from a reality, and the expectations of it may have been overstated.”¹⁰⁰⁷ In the GAO’s estimation, it was unrealistic to assume that many guard or reserve units could deploy to Europe within 30 to 60 days.¹⁰⁰⁸ Rather, it was more realistic to assume they could do so within 120 to 180 days, as the report concluded.¹⁰⁰⁹ The ARNG was also aware of its deficiencies, despite rosy assessments of its progress in the CNGB’s annual reports. One senior guard officer in May 1980 admitted in a letter to the Carter Administration that, “We couldn’t mobilize enough firepower to stop Snow White and the Seven Dwarfs. Our equipment is 20 to 25 years old and half of it isn’t even functional.”¹⁰¹⁰

¹⁰⁰⁵ Robert Kaylor, “Where are the Weekend Warriors,” *Los Angeles Times*, 18 October 1978, C8.

¹⁰⁰⁶ Weinraub, “Ill-prepared National Guard Short of Men and Weapons,” E3; Harold Logan, “Guard, Reserve at a Curious Crossroads,” *Washington Post*, 27 June 1977, A2.

¹⁰⁰⁷ The Comptroller General of the United States, *What Defense Says About Issues in Defense Manpower Commission Report – A Summary* (Washington, DC: Government Printing Office, 1977), 9.

¹⁰⁰⁸ Ibid.

¹⁰⁰⁹ Ibid.

¹⁰¹⁰ Ronald Yates, “53 National Guard Adjutants Criticize Carter Plans in Unprecedented Move,” *The Washington Post*, 07 May 1980, A4.

These readiness issues had enormous strategic and tactical implications. “It’s not a joke,” one senior DOD official for reserve affairs remarked in 1977, “[the] survival of our country depends on [guardsmen], and the margin for error’s gone.”¹⁰¹¹ The dependency was evident in the fact that nearly 60 percent of the U.S. Army’s combat strength resided in the ARNG and USAR.¹⁰¹² And eight U.S. Army divisions depended on the readiness of Roundout brigades to deploy at full strength. In short, the ARNG’s readiness issues were compromising the ability of the U.S. Army to execute its wartime missions.

The ARNG was not alone in its struggles. The entire U.S. Army of the 1970s was unprepared to execute active defense doctrine against the Soviets successfully. During field tests in the late 1970s, active units struggled to conduct a coordinated mobile defense, as prescribed by FM 100-5.¹⁰¹³ Active defense, moreover, could not resolve the problem of how to defeat the Soviets in-depth. In other words, even if successful in the initial battle, the active army would likely have lacked the combat power to defeat follow on attacks by second and third echelon forces. And, as discussed above, guard and reserve forces would almost certainly not arrive in time to reinforce active units to absorb and defeat such attacks. Additionally, army equipment was equal to or inferior to much of what the Soviets fielded. Thus, as one

¹⁰¹¹ Logan, “Guard, Reserve at a Curious Crossroads,” A2.

¹⁰¹² Ibid.; Yates, “53 National Guard Adjutants Criticize Carter Plans in Unprecedented Move,” A4.

¹⁰¹³ Linn, *Echo of Battle*, 209.

senior U.S. Army commander from the time conceded, “the sum total of it is that we are not ready right now to fight sustained combat in Europe.”¹⁰¹⁴

Table 3.10 The ARNG Size and Budget (1974-1980) ¹⁰¹⁵		
Date	Size	Budget
1974	410,682	\$1,191,124,765
1976	376,141	\$1,807,569,283
1978	347,340	\$1,596,222,584
1980	368,254	\$1,801,631,035

The army addressed some of these deficiencies in the 1980s as its budgets increased, as new equipment developed in the late 1970s entered production, and as it refined its tactical concepts for defeating a Soviet attack into Europe. However, the qualitative gap between the active army and the ARNG widened, as guardsmen struggled to keep up with the rising standards of army doctrine and the technical sophistication of new weapons systems. Yet, despite these struggles, the army would increase the roles and responsibilities of the ARNG.

U.S. defense spending started to rise in the late 1970s due to concerns regarding the growth and improving quality of the Soviet armed forces.¹⁰¹⁶ In his 1978 annual report, Secretary of Defense Donald Rumsfeld warned “The Soviet Union, whatever its purpose, is without question engaged in a serious, steady, and sustained effort which, in the absence of a U.S. response, could make it the dominant military power in the world.”¹⁰¹⁷ The Carter and Reagan Administrations agreed with

¹⁰¹⁴ Ibid.

¹⁰¹⁵ CNGB, *Annual Report 1975*, 26; CNGB, *Annual Report 1974*, 210; CNGB, *Annual Report 1976*, 2, 101; CNGB, *Annual Report 1980*, 28, 74.

¹⁰¹⁶ The Executive Office of the President of the United States, *Historical Tables: Budget of the United States Government: Fiscal Year 2005* (Washington, DC: Government Printing Office, 2004), 162.

¹⁰¹⁷ OSD, *Annual Defense Department Report: FY 1978*, 3.

these warnings and took steps to mitigate the deteriorating military position of the United States relative to the Soviets.

President Carter ramped up defense spending during his four years in office, adding \$15 billion to the budget between 1977 and 1981.¹⁰¹⁸ Like Ford and Rumsfeld, Carter and his Secretary of Defense, Harold Brown (1977-1981), believed that the international system of the late 1970s presented significant threats to U.S. interests. In a February 1981 report to Congress, Brown expressed his concern that the 1980s could possibly become a decade “more dangerous than any we have yet known.”¹⁰¹⁹ He attributed this danger to growing Soviet military power, rising instability in the developing world, and world dependence on Mideast oil.¹⁰²⁰ Despite these fears, Carter and Brown conceded that defense spending could not accelerate too much, given the “severe economic difficulties” facing the U.S. in the late 1970s.¹⁰²¹

With these fiscal constraints in mind, Carter and Brown developed the so-called “Offset Strategy.” The Offset Strategy aimed to improve the United States’ ability to wage war not just in Europe, but also in the Middle East and other strategically important areas.¹⁰²² To do so, the United States would seek to develop qualitative advantages to “offset” the quantitative advantages of U.S. adversaries.¹⁰²³

¹⁰¹⁸ The Executive Office of the President of the United States, *Historical Tables: Budget of the United States Government: Fiscal Year 2005*, 162

¹⁰¹⁹ OSD, *Annual Defense Report: FY 1982*, x.

¹⁰²⁰ Ibid.

¹⁰²¹ Ibid., iii.

¹⁰²² Ibid., 131.

¹⁰²³ Ibid., x, 69.

This idea was not new; the army had developed its Active Defense doctrine with that goal in mind. The difference was that Carter proposed that the United States develop the military means “to defeat all potential enemies...”¹⁰²⁴ Defeat is a much more challenging task than containing and degrading a Warsaw Pact advance into West Germany, as the Nixon and Ford Administrations envisioned.

President Reagan also initiated a major U.S. military expansion and modernization effort, enabled by a massive growth in the funding of the army, as shown in Table 3.11 below. Strong growth in the U.S. economy and Regan’s unprecedently high deficit spending—spending \$1.4 billion more than revenues generated—between 1982 and 1990 helped enable and sustain such increases in military expenditures.¹⁰²⁵

Table 3.11 Rising U.S. Army Defense Spending 1980-1990 ¹⁰²⁶	
Date	Spending (\$ in Billions)
1980	34.4
1982	52.3
1984	62.2
1986	73.1
1988	75.8
1990	80.5

This massive increase to the U.S. defense budget enabled the army to modernize and address many of the conceptual and technical problems that plagued it during the 1970s. The centerpiece of the U.S. Army’s modernization effort in the

¹⁰²⁴ Ibid., 135.

¹⁰²⁵ Aided by government spending cuts elsewhere in government as well. For more on spending cuts, see Leffler, *For the Soul of Mankind*, 346; Blakeley, “Defense Spending in Historical Context: A New Reagan-esque Buildup?”, *CSBA*, 08 November 2017, <https://csbaonline.org/reports/defense-spending-in-historical-context> (accessed 26 December 2020); Benjamin Friedman, Learning from the Reagan Deficits." *The American Economic Review* 82, no. 2 (1992), 299.

¹⁰²⁶ DOD, *Annual Report 1986*, 294; DOD, *Annual Report 1988*, 326; DOD, *Annual Report 1990*, 220.

1980s was the 1982 revision of FM 100-5. Known as AirLand Battle, the 1982 revision addressed many of the conceptual gaps of Active Defense. Like Active Defense, AirLand Battle envisioned the U.S. Army defeating a Warsaw Pact invasion primarily with a high-tech and high skilled military capable of fighting outnumbered.¹⁰²⁷ But unlike Active Defense, AirLand Battle called for NATO aircraft, artillery, and cruise missiles to conduct deep attacks against second and third echelon Soviet forces to degrade them before they reached the forward edge of the battlefield.¹⁰²⁸ Whereas Active Defense had focused narrowly on fighting the first echelon forces, leaving the Warsaw Pact reserves free to mobilize and move to battle relatively unscathed.

AirLand Battle firmly established the U.S. Army's commitment to a high-tech and high-skilled form of warfare. That trend, which began with Active Defense in the 1970s, continues today. Active Defense and AirLand Battle were especially demanding on officers. General John Vessey Jr., the Chairman of the Joint Chiefs of Staff at the time of AirLand Battle's publication, observed how the new doctrine expanded a typical maneuver unit's area of operations. An infantry battalion in 1983, for instance, had to cover 40 to 50 times more space than a battalion from the Second World War.¹⁰²⁹ They also had to ensure that they integrated combined arms tactics

¹⁰²⁷ U.S. Army, *FM 100-5: Operations*, 33. The 1986 and 1982 versions of FM 100-5 are nearly identical.

¹⁰²⁸ For a full discussion on this see, Trauschweizer, *The Cold War U.S. Army*, 224-25.

¹⁰²⁹ John Vessey Jr. Statement Before the House Armed Service Committee On Strategic Nuclear Force Modernization, 21 April 1983, 45. In Joint History Office, *Selected Works of General John W. Vessey, Jr* (Washington, DC: GPO, 2008).

into their schemes of maneuver, while also coordinating operations with the U.S. Air Force. And they needed to accomplish these tasks in a compressed time frame against a larger enemy while likely suffering heavy losses.

To practice AirLand Battle, the army expanded training at NTC. Around 15 battalions cycled through NTC in 1982; by 1989, that number doubled to 30.¹⁰³⁰ Additionally, the army established the Joint Readiness Training Center (JRTC) in 1987 at Ft. Polk, Louisiana, to provide maneuver training for light infantry battalions; NTC focused on armored and mechanized infantry.¹⁰³¹

In addition to revising doctrine and enhancing training, the army also developed new technologies in the 1980s to improve its ability to execute AirLand Battle. To make that doctrine work, the army needed to ensure it had weapons systems that could survive in combat against a numerically superior enemy and inflict heavy losses on that enemy. Thus, new equipment, the army concluded, had to be highly survivable and have advanced fire control systems to score quick, accurate, and deadly hits against enemy forces.¹⁰³² Plans for developing equipment that satisfied these criteria were formulated in the early 1970s, when the army began plans for the so-called “big five” program.¹⁰³³ That program included a new main battle tank, infantry fighting vehicle (IFV), attack helicopter, transport helicopter, and air

¹⁰³⁰ OSD, *Annual Report 1989*, 131.

¹⁰³¹ *Ibid.*, 129.

¹⁰³² U.S. Army Center of Military History, *American Military History Volume II*, 384.

¹⁰³³ *Ibid.*, 383-84.

defense systems.¹⁰³⁴ These systems, including the M1 Abrams main battle tank and M2 Bradley infantry fighting vehicle, entered service in the 1980s. In addition to the big five program, the army developed and deployed the HMMWV, the multiple launch rocket system (MLRS), and upgraded self-propelled howitzers.¹⁰³⁵ Additionally, newly developed precision-guided munitions enabled U.S. aircraft and artillery to strike further and more accurately than ever before, giving it a realistic chance of degrading second and third echelon forces before they reached the front.¹⁰³⁶

The Army's big five program and similar modernization efforts in the Air Force and Navy drove up procurement costs from \$35.3 billion in 1980 to \$84.1 billion by the end of the decade, as shown in Table 3.12. Operations and maintenance costs rose as well, given much of this new equipment required extensive technical support because they used sophisticated electronics and computer systems. And attracting, training, and retaining volunteers and technical specialists forced the military to offer higher salaries and benefits. A new private in 1979, for instance, earned around \$450 a month, if he/she had no dependents. A decade later, that same private earned nearly \$1,000 a month.¹⁰³⁷

¹⁰³⁴ Ibid.

¹⁰³⁵ Ibid., 128.

¹⁰³⁶ Bronfield, "Fighting Outnumbered," 493.

¹⁰³⁷ Data from U.S. military pay charts available at the Defense Finance and Accounting Service website, <https://www.dfas.mil/MilitaryMembers/payentitlements/Pay-Tables/PayTableArchives/> (accessed 16 June 2020).

Table 3.12: Rising Costs of the All-Volunteer Force (\$ in Billions) ¹⁰³⁸				
Date	Personnel	Retirement Pay	Operations & Maintenance	Procurement
1980	31.1	11.9	46.6	35.3
1982	41.3	15.6	62.4	49.1
1984	48.4	16.5	80.0	86.1
1986		67.8	74.8	92.5
1988		76.6	81.6	80.1
1990		79.8	91.7	84.1

Increased defense spending helped the army modernize and become a higher-skilled force capable of deterring Soviet aggression with conventional arms alone. But it also contributed to an overburdening of the active army. In the 1980s, the army increased its presence in Germany by two divisions while depending its commitments to the Middle East.¹⁰³⁹ At the same time, it still maintained thousands of forces deployed to Korea and other areas across the globe. To meet these mission requirements, however, the army could not grow its end strength—which remained at around 780,000 personnel—due primarily to budgetary constraints.¹⁰⁴⁰ DOD, in turn, had to turn more to the guard and reserve to assist with peacetime and wartime missions.¹⁰⁴¹

One of the primary ways DOD increased guard and reserve integration was by expanding the Roundout program from four divisions to nine, meaning half of the army's 18 active divisions could not deploy and fight at full strength without the

¹⁰³⁸ DOD, *Annual Report 1982*, C-2; DOD, *Annual Report 1984*, 319; DOD, *Annual Report 1986*, 293; DOD, *Annual Report 1988*, 325; DOD, *Annual Report 1990*, 219.

¹⁰³⁹ Trauschweizer, *The Cold War U.S. Army*, 244. For more on the expanding commitment of U.S. forces to the Middle East and the conflict with Iran, see David Crist, *The Twilight War: The Secret History of America's Thirty-Year Conflict with Iran* (New York: Penguin Books, 2012).

¹⁰⁴⁰ DOD, *Annual Report 1989*, 226.

¹⁰⁴¹ *Ibid.*, 129.

guard.¹⁰⁴² At the same time, the guard had 10 of its own combat divisions that could reinforce the active army in Europe or in other secondary theaters of operation.¹⁰⁴³

The Reagan Administration, which was initially confident that guardsman and reservists could live up to its heightened responsibilities, invested heavily in improving ARNG capabilities. Increased spending helped the ARNG to grow its ranks throughout the decade, as shown in Table 3.5. At the same time, DOD also issued select guard units new Abrams tanks and Bradley IFVs starting in 1983.¹⁰⁴⁴ The guard, however, still received new equipment at a lower rate than active units, as only two guard battalions had M1 tanks by 1989.¹⁰⁴⁵

Table 3.13 The ARNG Size and Budget (1980-1990) ¹⁰⁴⁶		
Date	Size	Budget
1980	368,254	\$1,801,631,035
1982	409,238	\$2,449,708,000
1984	434,702	\$3,184,377,390
1986	446,872	\$5,302,707,126
1988	455,182	\$5,341,624,000
1990	456,960	\$5,187,846,000

Despite these improvements, the ARNG continued to fall short of active army expectations. In the summer of 1987, General Bernard W. Rogers, Supreme Allied Commander in Europe, complained to Congress that reserve units assigned to support operations in Europe “were undermanned, underequipped and unable to perform the

¹⁰⁴² Ibid., 128-29.

¹⁰⁴³ Ibid.

¹⁰⁴⁴ DOD, *Annual Report 1986*, 41; U.S. Army, *Department of the Army Historical Summary: FY 1983*, 104.

¹⁰⁴⁵ U.S. Department of the Army, *Department of the Army Historical Series: Fiscal Year 1989* (Washington, DC: Center of Military History, 1998), 150.

¹⁰⁴⁶ CNGB, *Annual Report 1980*, 28, 74; CNGB, *Annual Report 1982*, 22, 32; CNGB, *Annual Report 1984*, 18, 61; CNGB, *Annual Report 1986*, 16, 52; CNGB, *Annual Report 1988*, 31, 110; CNGB, *Annual Report 1990*, 20, 71.

tasks for which they were formed.”¹⁰⁴⁷ Additionally, internal army reviews from 1988, determined the ARNG suffered from substandard physical fitness, insufficient experience with modern weapons, and general inexperience in military skills relative to active forces.¹⁰⁴⁸

One reason why the ARNG struggled was that its soldiers and officers were not training to the same standards as their active duty counterparts. A 1988 GAO report revealed that only 32 percent of guardsmen were preparing for or taking their biannual skills qualification tests, compared to 74 percent of active duty soldiers.¹⁰⁴⁹ Of those 32 percent who took the exam, only 65 percent passed, compared to 92 percent pass rates by the active component.¹⁰⁵⁰ The report also found that guardsmen were not taking the exam because their leadership did not prioritize it and because, unlike the active army, a passing SQT score was not required for promotions.¹⁰⁵¹ Based on these findings, the GAO concluded that as many as 42 percent of guardsmen would require additional training if activated for war, meaning that many would be unable to deploy in the planned 30 to 60 day window.¹⁰⁵²

¹⁰⁴⁷ Duncan, *Citizen Warriors*, 41.

¹⁰⁴⁸ William Robbins, “As Reliance on the National Guard Grows, So Do Questions About Readiness,” *The New York Times*, 10 September 1989, 30.

¹⁰⁴⁹ GAO, *Readiness of Army Guard and Reserve Support Forces* (Washington, DC: Government Printing Office, 1988), 4.

¹⁰⁵⁰ *Ibid.*

¹⁰⁵¹ *Ibid.*, 4, 38.

¹⁰⁵² U.S. Department of the Army, *Department of the Army Historical Summary: FY 1989*, 138.

Such additional training would be necessary because most guard units lacked the time to train to keep up with the rising standards of army doctrine. The army designed AirLand Battle—and all the high-tech equipment the army developed to make that doctrine work—with active duty soldiers in mind. The active duty army trains throughout the year, providing numerous opportunities to learn and practice AirLand Battle, be it in school, during field exercises, or training while in garrison. The guard, meanwhile, only had around 39 days to train. And much of that training focused on individual and small unit tasks. A battalion only conducted full maneuvers with its three companies once a year during annual training or in some cases every other year.¹⁰⁵³ Brigade maneuvers with all three battalions only occurred every four years for the select units that attended NTC or JRTC.¹⁰⁵⁴

Making matters worse, administrative issues often cut into training time for mission essential tasks (METs)—tasks the army considered essential for a unit to perform its main combat missions.¹⁰⁵⁵ In the 1980s, the army expected for a guard or reserve unit to spend 80 percent of drill weekends focused on METs.¹⁰⁵⁶ However, a 1989 Brookings Institute study found that administrative tasks, such as personnel evaluations or armory maintenance, could consume nearly half a unit's drill

¹⁰⁵³ Brady, "Ready to Serve?" 40-42.

¹⁰⁵⁴ Ibid., 39-42.

¹⁰⁵⁵ For example, see U.S. Army, *TC 3-21.20: Infantry Battalion Collective Task Publication*, p. 2-1.

¹⁰⁵⁶ U.S. Army, *Department of the Army Historical Summary: FY 1989*, 152-53.

periods.¹⁰⁵⁷ What is more, guard units were generally located more than 65 miles from rifle ranges and 149 miles from their collective training sites.¹⁰⁵⁸ Units, therefore, lost precious hours of training during drills driving to and from ranges.

DOD recognized these challenges and conducted several studies in the late 1980s to examine ways to mitigate them.¹⁰⁵⁹ In 1987, one such study concluded that the ARNG and reserves needed to focus on enhancing individual soldier skills.¹⁰⁶⁰ DOD also recognized that such efforts would have little impact on building collective skills above the company-level due largely to the guard's condensed training schedule.¹⁰⁶¹ Thus, one board appointed by the Secretary of Defense in 1990 to review the TFP concluded that "brigade or division-sized ground units, are much more likely to need some post call-up training before deployment."¹⁰⁶² In other words, DOD was questioning a key assumption of the TFP and the Roundout Program that came from it—that the ARNG could deploy maneuver brigades to Europe in around 30 days. Fortunately, DOD never had to test that assumption against the Soviets, as the Cold War ended at the dawn of the 1990s.

¹⁰⁵⁷ Martin Binkin and William W. Kaufman. *U.S. Army Guard and Reserve: Realities and Risks* (Washington, DC: Brookings, 1989), 23.

¹⁰⁵⁸ GAO, *Management Initiatives Needed to Enhance Reservists' Training* (Washington, DC: Government Printing Office, 1989), 3, 34.

¹⁰⁵⁹ U.S. Army, *Department of the Army Historical Summary: FY 1989*, 153.

¹⁰⁶⁰ Ibid.

¹⁰⁶¹ National Guard Education Foundation Library, Hollinger Box 30: Force Structure Misc. (1990), Folder: Total Force Policy Study, Document 3: Document: 3 August 1990: Total Force Study Group Draft Interim Report (to go to Congress), 26.

¹⁰⁶² National Guard Education Foundation Library, Hollinger Box 30: Force Structure Misc. (1990), Folder: Total Force Policy Study, Document: 04 January 1991: Final Report of the Total Force Policy Study Group, 5.

Section 3: The Total Force Policy Tested

The 1991 Persian Gulf War provided DOD an opportunity to test whether its reserve components could meet the expectations of the TFP. On the surface, the war was an unqualified success for the guard and reserve. The ARNG deployed 297 units—37,848 personnel—to Saudi Arabia to support the war; thousands of additional guardsmen deployed to Germany, Turkey, and throughout the United States to bolster security at military installations and other facilities.¹⁰⁶³ What is more, many units that deployed to Saudi Arabia arrived within thirty days—far quicker than in Korea or the world wars.¹⁰⁶⁴ Yet it was not unqualified success. The Roundout brigades and other guard maneuver units did not deploy—despite two opportunities to do so—due to a host of personnel and training issues and some lingering anti-guard biases among active duty commanders and trainers.

The first opportunity came in August 1990, when U.S. Central Command (CENTCOM) dispatched two divisions—the 1st Cavalry and 24th Infantry—to Saudi Arabia in response to Saddam Hussein’s invasion and occupation of Kuwait.¹⁰⁶⁵ Both divisions contained a Roundout brigade from the ARNG.¹⁰⁶⁶ But the Pentagon

¹⁰⁶³ CNGB, *Annual Report 1991*, 25.

¹⁰⁶⁴ *Ibid.*, 82.

¹⁰⁶⁵ GAO, *Army Training: Replacement Brigades Were More Proficient Than Guard Roundout Brigades* (Washington, DC: Government Printing Office, 1992), 1; Richard Swain, *"Lucky War": Third Army in Desert Storm* (Ft. Leavenworth: Combat Studies Institute, 2011), 8.

¹⁰⁶⁶ GAO, *Army Training: Replacement Brigades Were More Proficient Than Guard Roundout Brigades*, 1; Swain, *Lucky War*, 8, 40.

opted to replace the guardsmen with active personnel—a decision that sparked a political firestorm back in Washington.¹⁰⁶⁷

At the Pentagon, Secretary of Defense Richard Cheney and CSA General Carl Vuono reasoned that deploying the Roundout brigades made little sense because the War Powers Act of 1973 limited federal activations of reservists to 90 days with the possibility of a 90-day extension.¹⁰⁶⁸ Vuono worried that this time limit was too restrictive, given that in his estimate, it would take at least 60 days to train each Roundout prior to their arrival in theater.¹⁰⁶⁹ In other words, by the time they finished training and arrived in theater, the Roundouts would be very close to reaching their 90 day limit. That said, Vuono still wanted to activate the Roundouts to prove the viability of the program—a program that he helped manage in the late 1980s.¹⁰⁷⁰

Deploying the Roundouts also faced resistance from CENTCOM commander, General Norman Schwarzkopf, who strongly objected to the deployment of guard maneuver units to the gulf, according to Stephen Duncan, who headed the Pentagon's office for reserve affairs at the time.¹⁰⁷¹ Schwarzkopf, in Duncan's estimation, lacked confidence in the guard's combat readiness and he also found their 180-day

¹⁰⁶⁷ Ibid., 40.

¹⁰⁶⁸ National Guard Education Foundation Library, Hollinger Box 31, Folder: Guard Call-Up, Dick Cheney Response to Les Aspin, 18 September 1990.

¹⁰⁶⁹ Duncan, *Citizen Warriors*, 37.

¹⁰⁷⁰ Norman Schwarzkopf, *It Doesn't Take a Hero: The Autobiography of General Norman Schwarzkopf* (New York: Bantam Books, 1992), 323.

¹⁰⁷¹ Duncan, *Citizen Warriors*, 36-37, 40.

deployment limit too restrictive.¹⁰⁷² Schwarzkopf also viewed Vuono's discussions about the deployment of Roundouts as politically motivated, telling him that "I understand your political problem but goddammit, we're fighting a war now."¹⁰⁷³ With support from the Chairman of the JCS (CJCS) Colin Powell, Schwarzkopf succeeded in removing the Roundouts from the deployment schedule.¹⁰⁷⁴

The ARNG and its supporters in Congress resisted Schwarzkopf's decision. Leading the opposition was Congressman Sonny Montgomery of Mississippi, a retired ARNG general and WWII veteran. Montgomery wrote to Secretary Cheney in late August 1990 expressing his concern regarding DOD's decision to keep the Roundouts stateside. In the letter, Montgomery explained how he "was fully confident that [the Roundouts] can answer this challenge."¹⁰⁷⁵ And, in an October 1990 report, Montgomery and his allies assessed that the Roundouts were ready and could deploy within 30 days of activation.¹⁰⁷⁶ He also backed his statements by helping pass legislation in November 1990 that granted the President the right to deploy reservists for up to one year.¹⁰⁷⁷ These demands and new legislation,

¹⁰⁷² Duncan, *Citizen Warriors*, 36-37, 40.

¹⁰⁷³ Schwarzkopf, *It Doesn't Take a Hero*, 323.

¹⁰⁷⁴ Ibid., 324.

¹⁰⁷⁵ National Guard Education Foundation Library, Hollinger Box 31, Folder Guard Call-Up, Letter from Congressman Montgomery to Hon. Richard Cheney, 1.

¹⁰⁷⁶ National Guard Education Foundation Library, Hollinger Box 31, Folder: Guard Call-Up, 15 October 1990 Report, "Iraq, Saudi Arabia, and the Reserve Components: Missing Lessons for the Future Force Structure," 6-7.

¹⁰⁷⁷ Conaway, *Call Out The Guard!* 176.

combined with a decision by President George Bush to double the size of U.S. forces stationed in Saudi Arabia, convinced the Pentagon to activate the Roundouts.¹⁰⁷⁸

DOD activated the 48th Infantry (Georgia ARNG), 155th Armored (Mississippi ARNG), and 256th Infantry (Louisiana ARNG) brigades between 30 November and 07 December 1991.¹⁰⁷⁹ Following activation, each brigade reported to an assigned readiness center for pre-deployment assessments; after which they were supposed to travel to NTC to partake in progressively challenging combat simulations.¹⁰⁸⁰ The Pentagon and CENTCOM hoped for the brigades to complete these tasks within 40 days, enabling them to travel to Saudi Arabia in time to participate in the looming ground offensive against the Iraqis.¹⁰⁸¹

Table 3.14: Maneuver Unit Activation Dates for 1991 Persian Gulf War ¹⁰⁸²	
Unit	Activation
48 th Infantry Brigade (GA)	30 November 1990
155 th Armored Brigade (MS)	07 December 1990
256 th Infantry Brigade (LA)	30 November 1990

But a multitude of personnel issues prevented the brigades from meeting this timeline, as revealed in a series of GAO investigations conducted after the war. The most pressing initial challenge was that brigades were critically short on trained

¹⁰⁷⁸ Doubler, *Civilian in Peace, Soldier in War*, 313.

¹⁰⁷⁹ National Guard Education Foundation Library, Hollinger Box 31, Folder: Guard Call-Up, Document: How Roundout Works—Updated Paper by Major General Ensslin Jr., National Guard Association, 2.

¹⁰⁸⁰ Conaway, *Call Out The Guard!* 176-77.

¹⁰⁸¹ GAO, *National Guard: Peacetime Training Did Not Adequately Prepare Combat Brigades for Gulf War* (Washington, DC: Government Printing Office, 1991), 4.

¹⁰⁸² CNGB, *Annual Report 1991*, 74-77.

personnel.¹⁰⁸³ One reason for this was that between 34 and 50 percent of the brigades' soldiers were non-deployable for medical reasons, requiring them to spend several weeks addressing medical readiness issues.¹⁰⁸⁴ Of those who were deployable, many were untrained or undertrained in their military occupations, as they had yet to complete key leadership or technical schools.¹⁰⁸⁵

A flawed readiness reporting system likely prevented senior active and guard leaders from identifying these problems prior to activation, as revealed during congressional hearings led by Representative Les Aspin in May 1992.¹⁰⁸⁶ During one such hearing, Aspin noted how some guard units rated their own readiness levels with little or no oversight.¹⁰⁸⁷ In absence of such supervision, some inflated their readiness levels. Aspin recalled the case of a guard medical unit that rated itself ready to deploy, even though it had no doctors.¹⁰⁸⁸ Dishonesty was also an issue. As an Army Inspector General report from after the war found, active duty officers assigned to oversee guard units during annual training tended to inflate unit performance in their assessments.¹⁰⁸⁹

¹⁰⁸³ GAO, *Army Training: Replacement Brigades Were More Proficient Than Guard Roundout Brigades*, 4.

¹⁰⁸⁴ *Ibid.*, 22.

¹⁰⁸⁵ *Ibid.*, 3, 24-25.

¹⁰⁸⁶ The National Guard Education Foundation Library, Hollinger Box 30: Force Structure, Folder: Total Force Policy Study, Document: 7 May 1992, From Les Aspin to Members, Committee on Armed Services, Topic: Combat Power from the Reserve Component, 7.

¹⁰⁸⁷ *Ibid.*

¹⁰⁸⁸ *Ibid.*

¹⁰⁸⁹ Report cited in Brady, *Ready to Serve?* 32-33.

Some units, like the 256th Brigade, also suffered from disciplinary problems. After around a month of training at Fort Hood, Texas, 60 members of the brigade went absent without leave (AWOL) because they felt mistreated, overworked, and wanted a weekend off—an incident that attracted national media attention.¹⁰⁹⁰ "A lot of guys were frustrated and tired of being lied to about getting time off," one of the unit's members told a *Los Angeles Times* reporter at the time.¹⁰⁹¹ The brigade, as a result, remained at Hood until the end of the war and never made it to NTC for evaluation.¹⁰⁹²

The 48th Brigade did arrive at NTC, where army trainers quickly discovered it lacked the training and experience to execute AirLand Battle tactics. One of the key problems that NTC trainers noted to GAO investigators was that the brigade struggled with planning and executing combined arms operations.¹⁰⁹³ This was problematic because combined arms tactics were a core component of AirLand Battle. Trainers also informed the GAO that the 48th's staff had difficulties with basic staff work. Some officers, for instance, demonstrated an inability to conduct terrain analysis others did not understand how to leverage intelligence collection platforms to find

¹⁰⁹⁰ Elizabeth Hudson, "40 in Guard Ruled AWOL at Fort Hood," *The Washington Post*, 08 February 1991, A33.

¹⁰⁹¹ Louis Sahagun and John Broder, "40 AWOL Guardsmen Come Back: Reserves: Members of a Louisiana unit return to their posts in Texas, two days after leaving. They will face military charges" *LA Times*, 08 February 1991, A11.

¹⁰⁹² Brady, *Ready to Serve?* 95.

¹⁰⁹³ The Government Accountability Office, *National Guard: Peacetime Training Did Not Adequately Prepare Combat Brigades for Gulf War*, 3, 14.

and target opposing forces, according to the GAO's findings.¹⁰⁹⁴ The brigade also could not keep more than 30 to 40 percent of its tanks running, as they had become dependent on full-time, non-deployable civilian technicians.¹⁰⁹⁵

The active duty officers and NCOs overseeing the training may also have harbored anti-guard biases that caused them to be more critical of the 48th than they would have been with active units. One member of the 48th complained in a March 1991 interview that, "We were called to active duty, yet we were still treated like the National Guard. It was like being second string, sitting on the bench for the state championship football game when you expected to play."¹⁰⁹⁶ Another member told journalists, "We got the impression a lot of people wanted us to fail."¹⁰⁹⁷ "It seemed," in their view, "like the Regular Army a lot of times was just giving us bad information or was just messing with us."¹⁰⁹⁸ The 48th's commander, BG William Holland, who was relieved of command while at NTC in January, later stated in interviews that the active duty evaluators mistreated his unit.¹⁰⁹⁹

¹⁰⁹⁴ GAO, *National Guard: Peacetime Training Did Not Adequately Prepare Combat Brigades for Gulf War*, 18.

¹⁰⁹⁵ Staff Writers, "Cheney Says Guard Units May Need Reorganizing," *The Washington Post*, 15 March 1991, A34.

¹⁰⁹⁶ Peter Applebome, "Guardsmen Return From War They Didn't Fight," *New York Times*, 27 March 1991, A14.

¹⁰⁹⁷ Ibid.

¹⁰⁹⁸ Ibid.

¹⁰⁹⁹ Associated Press, "Unit Was Mobilized and Treated Badly," *New York Times*, 05 March 1991, A18; James Kitfield, *Prodigal Soldiers: How the Generation of Officers Born of Vietnam Revolutionized the American Style of War* (Dulles: Potomac Books, paperback edition, 1997), 352.

The 48th's poor performance at NTC caused its training to extend for nearly two months—twice as long as a normal rotation. Ultimately, it did receive a combat-ready rating on 28 February—the day the ground war ended in Iraq. The Roundout brigade concept, therefore, had failed, as it took around 90 days to bring the unit to a combat-ready rating and only after extensive pre-deployment training. Shortly after the war, Secretary of Defense Cheney concluded that the Roundout concept was unrealistic and that ARNG maneuver brigades should only serve in guard divisions that receive at least 90 to 120 days of training prior to deployment.¹¹⁰⁰

Section 4: The National Guard as an Operational Reserve

Following the Persian Gulf War, the ARNG and the entire U.S. Army faced steep budget and personnel cuts. The army budget fell from around \$74 billion in 1990 to \$65 billion in 1999; and its end strength dropped from 750,600 in 1990 to 482,200 by 2000 (mostly through attrition and voluntary separation), as shown in Figure 3.1.¹¹⁰¹ DOD also wanted to slash the size of the guard and reserve to free up increasingly scarce resources for equipment modernization.¹¹⁰²

¹¹⁰⁰ Staff Writers, “Cheney Says Guard Units May Need Reorganizing,” A34.

¹¹⁰¹ OSD, *Annual Report 1999*, B-2; John S. Brown, *Kevlar Legions: The Transformation of the United States Army 1989-2005* (Washington, DC: U.S. Army Center of Military History, 2012), 124-25.

¹¹⁰² Graham Bradley, “Army Postpones Some Guard Cuts to Ease Dispute,” *Washington Post*, 07 June 1997, A6.

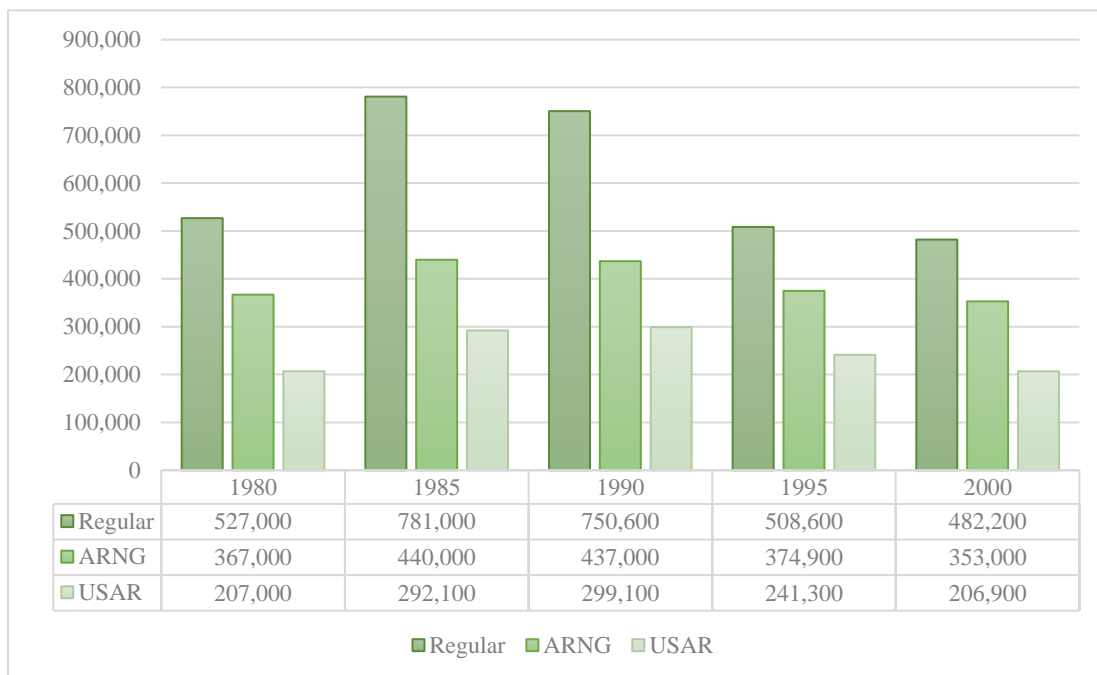


Figure 3.1: Active and Army National Guard End Strength 1980 - 2000¹¹⁰³

The ARNG and its supporters in Congress and NGAUS resisted proposed cuts to the guard.¹¹⁰⁴ One of their main arguments was that the ARNG was more cost-effective; a guard unit, they claimed, costs around 25 to 80 percent less to maintain than an active unit, due primarily to the part-time status of most of its members.¹¹⁰⁵ Meanwhile, leaders in Congress, like Sonny Montgomery, pressed the Clinton administration to abandon the cuts, citing the loss of part-time jobs in local

¹¹⁰³ OSD, *Annual Report 1985*, 284; OSD, *Annual Report 1991*, 113; OSD, *Annual Report 2001*, C-1.

¹¹⁰⁴ Colin Powell, *My American Journey* (New York: Ballentine Books, 2010), 550.

¹¹⁰⁵ Graham Bradley, "National Guard, Regular Army in Tug of War," *The Washington Post*, 20 October 1997, A12.

communities.¹¹⁰⁶ NGAUS even wrote a letter to Secretary of Defense William Cohen, arguing cuts would negatively impact Clinton's reelection bid in 1996.¹¹⁰⁷

At the same time, the ARNG worked to enhance the guard's power to determine its own budget. The main way it did so was by initiating a campaign to elevate the CNGB from a three-star billet to a four-star with a seat on the JCS.¹¹⁰⁸ This effort eventually succeeded in 2012, despite protests from the active army.¹¹⁰⁹ Previously, the guard had to rely on the CSA—an active army officer—to represent them in senior-level debates within the Pentagon regarding budgets and force structure.

Rising tension between the ARNG and DOD, which spilled into the view of the press, led Secretary Cohen to demand a compromise.¹¹¹⁰ DOD was pushing to cut 45,000 personnel from the guard and reserve.¹¹¹¹ But it agreed to drop that number to 20,000 and enact the rest of the cuts at an undetermined date.¹¹¹² Two years later, however, Cohen canceled the cuts due to a high demand for guardsmen and reservists

¹¹⁰⁶ John Lancaster, "Cheney Says Hill Hampers Troop Cuts," *The Washington Post*, 26 October 1991, A01.

¹¹⁰⁷ Staff Writers, "Rethink the Army National Guard," *The New York Times*, 27 December 1995, A14.

¹¹⁰⁸ Bradley, "National Guard, Regular Army in Tug of War," A12.

¹¹⁰⁹ Ibid.

¹¹¹⁰ Bradley, "Army Postpones Some Guard Cuts to Ease Dispute," A6.

¹¹¹¹ Brown, *Kevlar Legions*, 166.

¹¹¹² Bradley, "Army Postpones Some Guard Cuts to Ease Dispute," A6; Bradley, "National Guard, Regular Army in Tug of War," A12.

for peacekeeping operations in the Balkans.¹¹¹³ To cover the costs of keeping these troops, Congress raised defense spending by \$112 billion between 2000 and 2005, taking advantage of the booming U.S. economy of the late 1990s.¹¹¹⁴ The guard also agreed to transform 12 of its 42 maneuver brigades into combat support units, which were generally cheaper and filled more pressing needs for the active army.¹¹¹⁵

Although the ARNG's importance to army maneuver operations declined after the Cold War, DOD increased its use of guard and reserve units in peacekeeping, security, and counter-narcotics operations beginning in 1994.¹¹¹⁶ That year, Congress passed a new law allowing the President to extend involuntary reserve mobilizations from 90 to 270 days.¹¹¹⁷ DOD sought this extension to maximize its scarce resources following the end of the Cold War.¹¹¹⁸ Using the guard and reserve would also, in CSA Gordon Sullivan's (1991-95) view, "take the heat off the regulars."¹¹¹⁹

Between 1994 and 2000, over 30,000 guardsmen and reservists deployed to support peacekeeping and security assistance missions in the Balkans and the Sinai,

¹¹¹³ Associated Press, "Cohen shelves cut in reserve ranks," *The Washington Post*, 21 December 1999, A5.

¹¹¹⁴ Brown, *Kevlar Legions*, 168.

¹¹¹⁵ Bradley, "National Guard, Regular Army in Tug of War," A12.

¹¹¹⁶ Eric Schmitt, "Military Planning an Expanded Role for the Reserves," *New York Times*, 25 November 1994, A22.

¹¹¹⁷ U.S. Department of the Army, *Department of the Army Historical Series: Fiscal Year 1995* (Washington, DC: Center of Military History, 2004), 54.

¹¹¹⁸ Schmitt, "Military Planning an Expanded Role for Reserves," A22.

¹¹¹⁹ *Ibid.*

where their responsibilities gradually increased.¹¹²⁰ In 1999, the 49th Division of the Texas ARNG deployed a headquarters element to Kosovo to command active, guard, and reserve soldiers—the first time an ARNG division did so since Korea.¹¹²¹ A year later, the Pentagon gave the ARNG full responsibility for the Kosovo mission, drawing on guard divisions to manage operations in six-month rotations.¹¹²² And it did so because active duty divisions were overworked, limiting their ability to respond to a major crisis, such as a war in Korea or the Middle East.¹¹²³

As deployments increased, the ARNG also made incremental readiness gains. For instance, it received more modernized equipment—such as the M1A1 main battle tank, which became available to it as active units deactivated following the Cold War.¹¹²⁴ Such equipment transfers enabled 91 percent of ARNG units to meet all their equipment requirements by 1999—an increase from 77 percent in 1989.¹¹²⁵

ARNG training standards also improved. In the late Cold War, the guard attempted—and largely failed—to train at the battalion and brigade-level prior to activation, as evidenced by the struggles of the Roundout brigades in 1991.

¹¹²⁰ Doubler, *Civilian in Peace, Soldier in War*, 352-57; Steven Lee Myers, “Army to Shorten Tours of Reserves Serving Overseas,” *New York Times*, 05 March 2000, 1.

¹¹²¹ Steven Lee Myers, “National Guard Unit Adds Dimension to a Peacekeeper Role,” *New York Times*, 18 June 2000, 4.

¹¹²² Steven Lee Myers, “Army Will Give National Guard the Entire U.S. Role in Bosnia,” *New York Times*, 05 December 2000, A8.

¹¹²³ Steven Lee Myers, “Army Weighs an Expanded Role for National Guard Combat Units,” *New York Times*, 04 August 2000, A1.

¹¹²⁴ CNGB, *Annual Report 1997*, 36; Brown, *Kevlar Legions*, 127.

¹¹²⁵ U.S. Department of the Army, *Department of the Army Historical Series: Fiscal Year 2000* (Washington, DC: Center of Military History, 2011), 78.

Following Operation Desert Storm, DOD decided to focus ARNG training on individual skills and company-level tasks as part of the Bold Shift Program.¹¹²⁶ The goal was to establish a foundation of basic skills that units could improve upon during mobilization.¹¹²⁷ Meanwhile, the introduction of digital training tools in the 1990s helped units build skills in tank gunnery and rifle marksmanship using simulators at their own armories or nearby facilities.¹¹²⁸ Distance learning programs also helped guardsmen and reservists complete portions of their training and professional education from home or at local armories, without having to disrupt their civilian lives by attending resident courses on active duty military installations.¹¹²⁹

Although focused on company tasks, the ARNG conducted some training and operations at the brigade-level. Due to cuts to active army endstrength, DOD could not reduce its reliance on guard maneuver brigades. To maximize the guard's value as a combat reserve, DOD decided in 1993 to transfer all maneuver elements from the USAR to the ARNG, while giving the USAR some of the guard's excess combat support capabilities.¹¹³⁰ The ARNG, in turn, had to field 15 combat brigades—seven armor, seven infantry, and one armored cavalry—that could deploy within 90 days of

¹¹²⁶ Doubler, *Civilian in Peace, Soldier in War*, 338.

¹¹²⁷ RAND Corporation, *The Army Makes a Bold Shift: Improving Reserve Training*, RAND Corporation, undated 2001, https://www.rand.org/pubs/research_briefs/RB3019/index1.html (accessed 27 May 2018).

¹¹²⁸ CNGB, *Annual Report 1995*, 32.

¹¹²⁹ U.S. Army, *Historical Summary: Fiscal Year 1995*, p. 60.

¹¹³⁰ U.S. Department of the Army, *Department of the Army Historical Series: Fiscal Year 1997* (Washington, DC: Center of Military History, 2005), 8.

activation to ensure the army could wage a two theater war, if necessary.¹¹³¹ Every eight years, these brigades, which were known as the “enhanced brigades,” rotated through NTC or JRTC.¹¹³² ARNG units that were not part of the enhanced brigades program (around 110,000 personnel) would maintain lower readiness levels in terms of manning, equipment, and training.¹¹³³ And they would prepare to deploy within 150 days of activation to reinforce or augment an active division or corps during a crisis.¹¹³⁴

As the ARNG restructured for the post-Cold War era, the U.S. military deepened its commitment to maintaining a high-skilled, high-tech force. However, unlike during the 1980s, the U.S. military—and the army in particular—focused on developing lighter, more survivable forces that could deploy rapidly to respond to a range of crises across the globe from major regional wars to security assistance missions.¹¹³⁵ In response to this strategic shift, the army developed and fielded weapons such as the fire-and-forget Javelin anti-tank missile that enhanced the ability of light—and more deployable—infantry to defend themselves against armored vehicles.¹¹³⁶ The army also established the Army Digitization Office in 1994 to

¹¹³¹ U.S. Army, *Historical Summary: Fiscal Year 1995*, 54; DOD, *Annual Report 1995*, 245.

¹¹³² Brown, *Kevlar Legions*, 181.

¹¹³³ U.S. Army, *Historical Summary: Fiscal Year 1995*, 54; Bradley, “National Guard, Regular Army in Tug of War,” A12.

¹¹³⁴ DOD, *Annual Report 1995*, 36; Brown, *Kevlar Legions*, 181.

¹¹³⁵ *Ibid.*, 98, 140.

¹¹³⁶ The Javelin, unlike the army’s existing anti-tank missile, the TOW, was a top attack missile, meaning it strikes tanks in their most vulnerable area: the top of the tank, where armor is thinnest. Brown, *Kevlar Legions*, 98.

oversee its development and procurement of computer hardware and software.¹¹³⁷

These new technologies included GPS navigation that used transponders that broadcasted on a secure tactical internet to track friendly forces on the battlefield. The army also fielded new unmanned aircraft systems (UAS) and an array of other battlefield sensors to help find, fix, and destroy enemy forces.¹¹³⁸

The U.S. Army had its first opportunity to apply many of these new systems in combat following the 9/11 terrorist attacks and the ensuing Global War on Terrorism—a conflict that brought ARNG maneuver units into combat for the first time since the Korean War. But initially DOD sidelined the guard, keeping it in a support role. The George W. Bush Administration wanted to maintain a light footprint in its fight against al-Qa’ida in Afghanistan, fearing that a commitment of a large contingent of U.S. ground forces would make the Afghans dependent on the United States.¹¹³⁹

But the 2003 invasion of Iraq was far more resource intensive than the war in Afghanistan. To invade and occupy Iraq, the U.S. Army had to activate and deploy around 38,000 guardsmen—the largest mobilization of the ARNG since the Korean War.¹¹⁴⁰ And, unlike in 1991, the ARNG deployed maneuver units, including seven

¹¹³⁷ Ibid., 123.

¹¹³⁸ Ibid., 145-46, 148-49.

¹¹³⁹ Steven Coll, *Directorate S: The C.I.A. and America's Secret Wars in Afghanistan and Pakistan* (New York: Penguin Books, 2018), 134.

¹¹⁴⁰ CNGB, *Annual Report 2003*, 32; Kevin Sullivan, “Weekend Warriors No More,” *The Washington Post*, 19 July 2003, A01.

light infantry battalion.¹¹⁴¹ Those battalions, however, served in supporting roles, as active army, USMC, and UK forces spearheaded the main attack.¹¹⁴²

The Pentagon did not plan to deploy larger guard maneuver brigades until a year after the invasion, and only after they completed over six months of pre-deployment training.¹¹⁴³ The Pentagon and CENTCOM, moreover, assumed that these brigades would enter a relatively safe operating environment, as the Pentagon assessed that Iraqis would greet the United States as liberators.¹¹⁴⁴ But those assumptions quickly proved false, as an insurgency and civil war erupted between Iraqi's Sunni and Shia communities following the fall of Saddam in 2003.

Escalating insurgent violence in Iraq between 2003 and 2007 forced the Pentagon and CENTCOM to assign guard units combat missions in Iraq or supporting roles elsewhere. To free personnel for Iraq, the army had to send 2,600 guardsmen to Afghanistan and assign guard units to run operations in the Sinai and Balkans.¹¹⁴⁵ And in Iraq, CENTCOM eventually had to rotate thousands of guardsmen in to replace exhausted active duty units, leading to a situation in 2005 when half of the

¹¹⁴¹ Terry Sellers, Gregory Fontenot, E.J. Degen, and David Tohn. "On Point: The United States Army in Operation Iraqi Freedom," *Naval War College Review*: Vol. 59 (2006), No. 2, Article 14, 176-77.

¹¹⁴² Ibid.

¹¹⁴³ Thom Shanker, "U.S. To Use Mix of Regular, National Guard, and Reserve Troops in Iraq," *The New York Times*, 24 July 2003, A10.

¹¹⁴⁴ U.S. Army War College, *The U.S. Army in the Iraq War, Volume 1: Invasion, Insurgency, and Civil War (2003-2006)* (Carlisle: U.S. Army War College Press, 2019), 36, 64-66.

¹¹⁴⁵ CNGB, *Annual Report 2003*, 32.

maneuver brigades deployed to Iraq were guard.¹¹⁴⁶ This high deployment tempo would continue until around 2011, when the Obama Administration began to drawdown U.S. combat missions in Iraq and Afghanistan. In total, 500,000 army guardsmen deployed to support operations in Iraq or other theaters between 2001 and 2015.¹¹⁴⁷ Nearly half of guardsmen during this period, therefore, were combat veterans—numbers not seen since the early Cold War.¹¹⁴⁸

The prolonged deployments of guardsmen to Iraq and Afghanistan generated recruitment and retention issues and a political backlash. The dangers of serving in Iraq and Afghanistan and the length of the deployments—around 12 months in theater and several months of pre-and post-deployment training—led to recruitment shortfalls by the mid-2000s.¹¹⁴⁹ Additionally, the guard's ability to recruit soldiers coming off active duty was constrained by the fact the active army prevented some soldiers from leaving.¹¹⁵⁰ Consequently, the ARNG struggled to meet its recruitment quotas, falling 20 percent short in mid-2003 and around 30 percent short a year

¹¹⁴⁶ “About the Army National Guard,” *The National Guard*, <http://www.nationalguard.mil/AbouttheGuard/ArmyNationalGuard.aspx> (accessed 27 November 2015).

¹¹⁴⁷ Army National Guard, “ARNG by the Numbers,” September 2015, <http://arng.ng.mil/Shared%20Documents/By%20the%20Numbers/By%20the%20Numbers%20-%20SEP%202015.pdf> (accessed 27 November 2015).

¹¹⁴⁸ National Guard Bureau, “The Army National Guard: A Great Value for America,” 17 February 2012, <http://arng.ng.mil/resources/News/Publications/Documents/ValuewhitePaper17Feb2012FinalDARNGapprovedv9.pdf> (accessed 27 November 2015).

¹¹⁴⁹ Vernon Loeb, “Protests Grow over Year-Long Army Tours,” *The Washington Post*, 20 September 2003, A13.

¹¹⁵⁰ U.S. Army, *Historical Summary: Fiscal Year 2004*, 46.

later.¹¹⁵¹ Retention was also difficult, as some guardsmen questioned the value of the missions and the burdens placed upon them and their families. For example, one Florida guardsmen deployed to Iraq in 2003 complained to a reporter that his mission was “outside the scope of what the National Guard has been used for in the past.” And that his soldiers “deserve...and...have earned, the right to go home.”¹¹⁵²

Such views almost certainly reflected the fact that many guardsmen who deployed to Iraq between 2003 and 2005 had joined the pre-9/11 army. Those who joined the guard in the 1980s or 90s joined at a time in which deployments were extremely rare. And if they did deploy, they went to relatively safe locations like the Balkans and the Sinai. Those deployments were also short—around six months—and predictable, meaning guardsmen knew well in advance that they were going to deploy. Having such forewarning allowed them to prepare their employers and families. And because the deployments were safe and predictable it would have likely been much easier for a guardsmen to find a substitute from another unit within their state, as the guard is full of many young college-aged men and women who would jump at an opportunity to make additional income via a deployment.¹¹⁵³

¹¹⁵¹ Loeb, “Protests Grow Over Year-Long Army Tours,” A13; Eric Schmitt, “Guard Reports Serious Drop in Enlistment,” *New York Times*, 17 December 2004, A32.

¹¹⁵² Kevin Sullivan, “Weekend Warriors No More,” *The Washington Post*, 19 July 2003, A1.

¹¹⁵³ Most of the observations from this paragraph are from personal experience in the NG over the past decade. When a unit in my state deploys on a predictable rotation to places like Kuwait, Kosovo, or the Sinai, it is relatively easy to find someone in a different unit within your state to replace you. One reason for this is a guardsmen can make a significant amount of money while deployed, given they will have untaxed income and a housing allowance to cover their rent and mortgage. Many guardsmen are young and unemployed or underemployed as civilians, thus, opportunities for additional income for six months or more is very appealing, especially if they are going somewhere safe and if they have many months to prepare their friends, families, and employers for their absence.

Deployments to Iraq between 2003 and 2007, however, were long, dangerous, and increasingly unpopular back home.

The unpopularity of the wars led some politicians to speak out against the extensive use of guardsmen in Iraq and Afghanistan. Senator Bill Nelson of Florida, for instance, led a protest in September 2003, during which he argued that deploying guardsmen to Iraq was inappropriate and that it was going to cause them not to reenlist.¹¹⁵⁴ Some state governors also worried that deployments were compromising the guard's ability to respond to state missions, as much of its equipment and personnel were abroad in the mid-2000s—an issue that came to public light following Hurricane Katrina in 2005.¹¹⁵⁵ This tension—and the recruitment crisis—abated by 2010, as violence in Iraq subsided and as the deployment tempo decreased.¹¹⁵⁶ New generations of guardsmen who enlisted post 9/11, moreover, likely understood that service in the ARNG would require more frequent deployments.

Despite these concerns, the Pentagon had little choice but to deploy the guard to Iraq and other theaters because it simply lacked enough active duty soldiers. The post-Cold War U.S. Army had a strength of around 492,000 personnel in 2005—down from 780,800 in 1985.¹¹⁵⁷ And that downsized force was attempting—unsuccessfully—to contain rising insurgent violence in Iraq and Afghanistan, while

¹¹⁵⁴ Loeb, “Protests Grow Over Year-Long Army Tours,” A13.

¹¹⁵⁵ Robert Pear, “Bush Policies are Weakening National Guard,” *New York Times*, 27 February 2006, A10.

¹¹⁵⁶ U.S. Department of the Army, *Department of the Army Historical Series: Fiscal Year 2010* (Washington, DC: Center of Military History, 2015), 31.

¹¹⁵⁷ Brown, *Kevlar Legions*, 75.

also deploying and maintaining forces to support missions in Korea, the Balkans, and the Sinai. DOD, moreover, had a limited ability to grow the active army to meet these commitments, due to rising costs associated with the all-volunteer force and the Global War on Terrorism. Personnel costs, for instance, had risen from around \$73.8 billion in 2000 to around \$111.3 billion by 2006, as the army offered larger recruiting and retentions bonuses and other incentives to meeting recruitment quotas.¹¹⁵⁸

Although the guard was heavily involved in operations in Iraq and Afghanistan, the active army hesitated to assign guard units combat missions. Instead, they generally gave guard units support missions such as training local security forces or providing security for convoys and bases.¹¹⁵⁹ In fact, only 20 percent of guard maneuver units that deployed between 2001 and 2015 received combat assignments like clearing areas of insurgent groups, while 80 percent of their active duty counterparts received such missions.¹¹⁶⁰

There were exceptions. Faced with troop shortages as insurgent violence rose in 2005, U.S. commanders had to assign the 2nd Infantry Brigade Combat Team (2IBCT) of the Pennsylvania ARNG to secure and clear Ramadi—a city in western Iraq that was a major center for Sunni insurgent groups like al-Qa’ida in Iraq.¹¹⁶¹ U.S.

¹¹⁵⁸ OSD, *Annual Report 2005*, A-1.

¹¹⁵⁹ U.S. Army War College, *The U.S. Army in the Iraq War – Volume I*, 376; NCFA, “Recent Experience in Reserve and Guard Readiness, Mobilization, and Operational Deployment,” 10 April 2015, 2; U.S. Army, *Historical Summary: Fiscal Year 2004*, 42.

¹¹⁶⁰ NCFA, “Recent Experience in Reserve and Guard Readiness, Mobilization, and Operational Deployment,” 10 April 2015, 2.

¹¹⁶¹ See the case of the 2nd BCT (PA ARNG) in Iraq. See account of the experience by the unit’s commander at John L. Gronski, “2/28 BCT Goes to War,” State of Pennsylvania, 01 July 2007, http://www.milvet.state.pa.us/PAO/pr/2006_07_01.htm (accessed 28 November 2015).

commanders, however, only did so reluctantly because of shortages of active duty soldiers, despite protests from a U.S. Marine regiment in the vicinity of Ramadi which warned that sending guardsmen to such a dangerous area was a “recipe for disaster.”¹¹⁶²

The Marines’ warning proved accurate. Under the 2IBCT’s watch, al-Qa’ida seized portions of the city.¹¹⁶³ Frustrated, General George Casey—the overall commander of U.S. and allied forces in Iraq—ordered the brigade to mount an operation to clear the al-Qa’ida strongholds.¹¹⁶⁴ But the brigade’s initial plan to do so was predictable and rested on an incomplete intelligence picture, according to Casey. Worse, he got the sense that the unit was distracted by its pending redeployment back home.¹¹⁶⁵ Thus, Casey opted to task active duty units with retaking the city. The 2IBCT would return home, having lost 82 soldiers killed in action and another 611 wounded.¹¹⁶⁶

The 2IBCT’s experience was not an outlier. In the fall of 2005, the 48IBCT of the Georgia ARNG took control over the so-called triangle of death area just south of Baghdad.¹¹⁶⁷ Like the 2IBCT, the 48th failed to conduct presence patrols in

¹¹⁶² U.S. Army War College, *The U.S. Army in the Iraq War – Volume I*, 377.

¹¹⁶³ *Ibid.*, 604-06.

¹¹⁶⁴ *Ibid.*, 604.

¹¹⁶⁵ *Ibid.*

¹¹⁶⁶ *Ibid.*, 605.

¹¹⁶⁷ *Ibid.*, 506.

contested areas, allowing for insurgents to expand their control.¹¹⁶⁸ The 3rd Infantry Division, which oversaw the 48th, also found that the brigade suffered from widespread disciplinary problems that may have distracted the brigade and contributed to its ineffectiveness.¹¹⁶⁹ Fed up with the 48th's lackluster performance and disciplinary problems, senior army commanders in Baghdad reassigned the brigade to convoy security missions.¹¹⁷⁰ In total, 26 soldiers from the 48th died in combat during their eighteen-month deployment to Iraq.¹¹⁷¹

Such struggles convinced senior army commander to keep guard BCTs in supporting roles until 2009, when violence had subsided substantially.¹¹⁷² By that time, moreover, over 200,000 guardsmen had also gained experience in Iraq and Afghanistan; and those who had joined the guard prior to 9/11 and had a more limited desire to serve abroad had largely left the ranks.¹¹⁷³ In short, the post-2009 guard was almost certainly more willing and capable of conducting battalion to brigade-sized counterinsurgency operations than their predecessors were.

That said, a DOD policy decision in January 2007 restricted the ARNG's ability to perform combat operations above the company-level. Driving this change

¹¹⁶⁸ Ibid., 507.

¹¹⁶⁹ Ibid.

¹¹⁷⁰ Ibid.

¹¹⁷¹ Staff Writers, "Final 48th Brigade Troops Return from Iraq," *Daily Citizen-News*, 12 May 2006, https://www.dailycitizen.news/news/final-48th-brigade-troops-return-from-iraq/article_675a35c7-7114-5b17-9711-a2fa6640da7e.html (accessed 06 April 2021).

¹¹⁷² Ibid., 634.

¹¹⁷³ CNGB, *Posture Statement: 2010* (Washington, DC: NGB, 2010), 7.

was Secretary of Defense Robert Gates. In Gates' view, DOD "had pulled a bait and switch on the National Guard and Reserve," as most of its soldiers had joined expecting to train one weekend a month and two weeks a year.¹¹⁷⁴ But by the mid-2000s, many guardsmen were serving on lengthy tours that lasted 18 to 21 months, including four or five months of pre-deployment training.¹¹⁷⁵ To reduce the burden, Gates authorized a reduction in the stateside training to just 60 or 90 days, thereby limiting the total number of days on federal service to one year.¹¹⁷⁶ And by 2015, mobilization times were around 50 to 80 days for brigade-sized units and 30 days or less for company-sized units and below.¹¹⁷⁷ He also mandated that guard units aim to have a 5:1 mobilization-to-dwell ratio, meaning one year of a deployment would be followed by four non-deployment years (the active army ratio was 2:1).¹¹⁷⁸

By reducing stateside training, ARNG units lost opportunities to demonstrate and improve their collective skills above the company-level. Of course, units were able to train in those tasks prior to their activation. But the army required deploying ARNG and USAR units to restart their training cycle at basic soldier tasks and build up to battalion and brigade tasks at pre-deployment centers staffed by active duty

¹¹⁷⁴ Robert Gates, *Duty: Memoirs of a Secretary at War* (New York: Knopf, 2014), 7.

¹¹⁷⁵ Jim Garamone, "DOD Clarifies Reserve-Component Mobilization Policy," *U.S. Army*, 16 April 2007, <http://www.army.mil/article/2681/dod-clarifies-reserve-component-mobilization-policy/> (accessed 27 November 2015); NFCA, "Recent Experience in Reserve and Guard Readiness, Mobilization, and Operational Deployment," 10 April 2015, 2.

¹¹⁷⁶ Jim Garamone, "DOD Clarifies Reserve-Component Mobilization Policy," *U.S. Army*, 16 April 2007, <http://www.army.mil/article/2681/dod-clarifies-reserve-component-mobilization-policy/> (accessed 27 November 2015).

¹¹⁷⁷ CNGB, *Posture Statement: 2015* (Washington, DC: NGB, 2015), 24.

¹¹⁷⁸ NCFA, *National Commission on the Future of the Army: Report to the President and Congress of the United States* (Washington, DC: Government Printing Office, 2016), 64.

personnel.¹¹⁷⁹ 60 to 90 days was simply not enough time to reach the battalion to brigade-level tasks for maneuver units. Thus, once deployed, a theater commander could only expect guard maneuver units to have a proficiency in company-level tasks and below.

Having to restart training at the individual to company level at pre-deployment centers upset some guardsmen. They argued that they had trained on many of these tasks while on drill weekends and during annual training.¹¹⁸⁰ But, as was the case in the 1970s and 80s, administrative tasks still consumed entire drills, as complaints by guard soldiers in 2015 revealed.¹¹⁸¹ And that same year the National Commission on the Future of the Army (NCFA) found such tasks could consume up to 31 of a guard unit's 39 training days—far more than the 1970s and 80s.¹¹⁸²

These administrative and training issues declined in significance for much of President Barack Obama's Administration (2009-2017). During that period, guard and active army unit deployments declined as the U.S. withdrew from Iraq and downsized its presence in Afghanistan in 2011—a trend that reversed somewhat with the rise of ISIS in Iraq and Syria in 2014. That said, the United States largely relied on Special Operations Forces, airpower, and local allies to shoulder the fight against ISIS and to continue operations in Afghanistan against the Taliban and al-Qa'ida.

¹¹⁷⁹ NCFA "Minutes from NGAUS Conference, Nashville, TN," 12 September 2015, 4.

¹¹⁸⁰ NCFA, "Audio Recording of Part 1 of the Public Meeting, June 18, 2015."

¹¹⁸¹ *Ibid.*

¹¹⁸² NCFA, "Mandatory Training Requirements and Mobilization Force Generation Installations Information Paper," 9 September 2015, 1-2.

As it reduced its presence in Iraq and Afghanistan, the United States cut defense spending and the size of the army. These cuts were mostly the result of the Budget Control Act (BCA) of 2011. The BCA capped defense spending at \$10 trillion between FY 2011 and FY 2021 in response to the economic downturn of the late 2000s and the Democratic and Republican Party's inability to come to a compromise on spending and debt levels.¹¹⁸³ Consequently, army funding fell 14 percent between 2010 and 2015.¹¹⁸⁴ And the size of the force declined from 536,000 active duty in 2010 to 490,000 by 2015, while guard strength fell from 358,200 to 350,200 (USAR end strength remained unchanged at 258,800).¹¹⁸⁵

Active duty and ARNG relations frayed during this period because of two issues. First, in 2013, DOD began "off-ramping" ARNG units scheduled to deploy by replacing them with active units.¹¹⁸⁶ The ARNG complained that this policy was disrupting the lives of its soldiers, who had planned for the deployments, and that the active army was disparaging the guard by replacing them.¹¹⁸⁷ Active duty officers justified off-ramping because they assessed that full-time units were cheaper to deploy because the Pentagon did not have to cover the extra cost of activating and

¹¹⁸³ Todd Harrison, "What Has the Budget Control Act of 2011 Meant for Defense?" *CSIS*, 01 August 2016, <https://www.csis.org/analysis/what-has-budget-control-act-2011-meant-defense> (accessed 25 May 2018).

¹¹⁸⁴ NCFA, *The National Commission on the Future of the Army*, 39.

¹¹⁸⁵ *Ibid.*, 122.

¹¹⁸⁶ *Ibid.*, 3.

¹¹⁸⁷ *Ibid.*

training guard units.¹¹⁸⁸ Making matters worse, during a January 2014 press conference, CSA Ray Odierno stated that guard capabilities are not interchangeable with the active army—a statement that ran counter to what guard leadership have claimed for decades.¹¹⁸⁹ NGAUS leadership countered Odierno’s claims, arguing that guard and active units “are, by design, interchangeable” and that “they train to the same standard...and fight under the same doctrine.”¹¹⁹⁰

The second issue was that the active army aimed to remove all 192 AH-64 Apache attack helicopters from the ARNG by 2017, consolidating them in active formations to save an estimated \$12 billion.¹¹⁹¹ In return, the ARNG would receive 111 transport helicopters. This decision sparked a turf war between guard and active leadership, as guardsmen feared the removal of attack helicopters was an indicator that they were becoming a combat support force.¹¹⁹²

The infighting over the Apache helicopters led Congress to establish the National Commission on the Future of the Army (NCFA) in April 2015 to investigate the current state of the army and to make recommendations regarding how to

¹¹⁸⁸ Ibid.

¹¹⁸⁹ Staff Writers, “National Guard Chafes at Comments of Army Top Officer,” *Army Times*, 14 January 2014, <https://www.usatoday.com/story/news/nation/2014/01/14/army-national-guard-readiness/4472077/> (accessed 25 May 2018).

¹¹⁹⁰ Ibid.

¹¹⁹¹ NCFA, *The National Commission on the Future of the Army*, 1; Ben Watson, “Army, National Guard Fight Over Apache Helicopters,” *Defense One*, 08 April 2014, <https://www.defenseone.com/politics/2014/04/army-national-guard-fight-over-apache-helicopters/82150/> (accessed 09 June 2018).

¹¹⁹² Ibid.

optimize it for the future.¹¹⁹³ Less than a year after forming, the commission released its report recommending a compromise. Instead of removing all Apaches from the guard as the active army had proposed, the commission recommended that the guard keep four battalions—two less than what the guard wanted to keep.¹¹⁹⁴ At the same time, the commission reaffirmed the value of the TFP and the all-volunteer force.¹¹⁹⁵

The army had little choice but to embrace greater component integration—a central tenant of the TFP. Since 2014, threats to U.S. interests have multiplied, while the ability of the Pentagon to grow the active duty army to meet these threats was highly constrained due to budgetary shortfalls compounded by rising personnel and operations costs.¹¹⁹⁶ The downsized U.S. military, for instance, faced the birth and spread of ISIS, which forced the United States back into a combat role in Iraq in 2014 and expanded its counterterrorism operations into neighboring Syria—all while it continues the fight against terrorism in Afghanistan and other battlegrounds. China, meanwhile, has become more assertive, as it militarized the South China Sea, and invested in weapons that challenge U.S. naval and air supremacy in East Asia. And Russia also became more aggressive, seizing the Crimea in 2014 and deploying combat forces to Syria in 2015.

¹¹⁹³ NCFA, *The National Commission on the Future of the Army*, forward page.

¹¹⁹⁴ *Ibid.*, 3, 91.

¹¹⁹⁵ *Ibid.*, 2-3.

¹¹⁹⁶ CBO, “Growth in DoD’s Budget from 2000 to 2014, 20 November 2014, <https://www.cbo.gov/publication/49764> (accessed 21 August 2016).

In response to these threats, DOD needed more support from the ARNG. As of September 2016, the ARNG contains 27 BCTs, 45 multifunctional brigades, 51 support brigades, 2 Special Forces Groups, and 8 Division Headquarters.¹¹⁹⁷ The army had to draw on these forces to cover important missions such as the build-up of U.S. military forces in Eastern Europe to deter Russian aggression against NATO. As U.S. Army Europe Commander LTG Ben Hodges observed in April 2016, the active duty force is “paper thin.”¹¹⁹⁸ And, in Europe, Hodges conceded that he and his staff have had to place an emphasis on reserve component integration because, “I don’t have the capacity to do what I need to do without significant contributions from the guard and reserve.”¹¹⁹⁹

The main reason the army was “paper thin” in 2016 was because it lacked the budget to grow its forces. And guardsmen, as has been the case historically, are economical substitutes for active duty soldiers. The average guard unit costs between 21 and 68 percent of an active unit, depending on unit type.¹²⁰⁰ And active soldiers, who must be housed, fed, and cared for 24/7, are far more expensive than an individual guardsman. For example, in 2018, a junior NCO in the guard earned

¹¹⁹⁷ ARNG, “ARNG Overview,” *ARNG*, 05 September 2016, <https://arng.ng.mil/SitePages/Home.aspx> (accessed 25 May 2018).

¹¹⁹⁸ SFC Whitney Hughes, “Guard, Reserve Provide Breath of Fresh Air to U.S. Army Europe Mission,” *U.S. Army*, 18 April 2016, https://www.army.mil/article/166273/guard_reserve_provide_breath_of_fresh_air_to_us_army_europe_mission (accessed 10 July 2016).

¹¹⁹⁹ SGT Dennis Glass, “Lt. Gen. Hodges: U.S. Army Europe Needs Reserve Components to be Successful,” *U.S. Army Reserve*, 09 June 2016, <https://www.usar.army.mil/News/News-Display/Article/795255/Lt-gen-hodges-us-army-europe-needs-reserve-components-to-be-successful/> (accessed 06 July 2016).

¹²⁰⁰ OSD, “Report to Congress: Unit Cost and Readiness for the Active and Reserve Components of the United States,” 20 December 2013, 4.

around \$364 a month.¹²⁰¹ His/her active duty counterpart, meanwhile, made \$2,733 a month in base pay and around \$1,000 in housing and living allowances, depending on their locality and whether they have dependents.¹²⁰² Although its budget rose during the Trump Administration (2016 to present), the army had to set aside much of that new money to invest in technology to upgrade or replace aging Cold War-era equipment.¹²⁰³

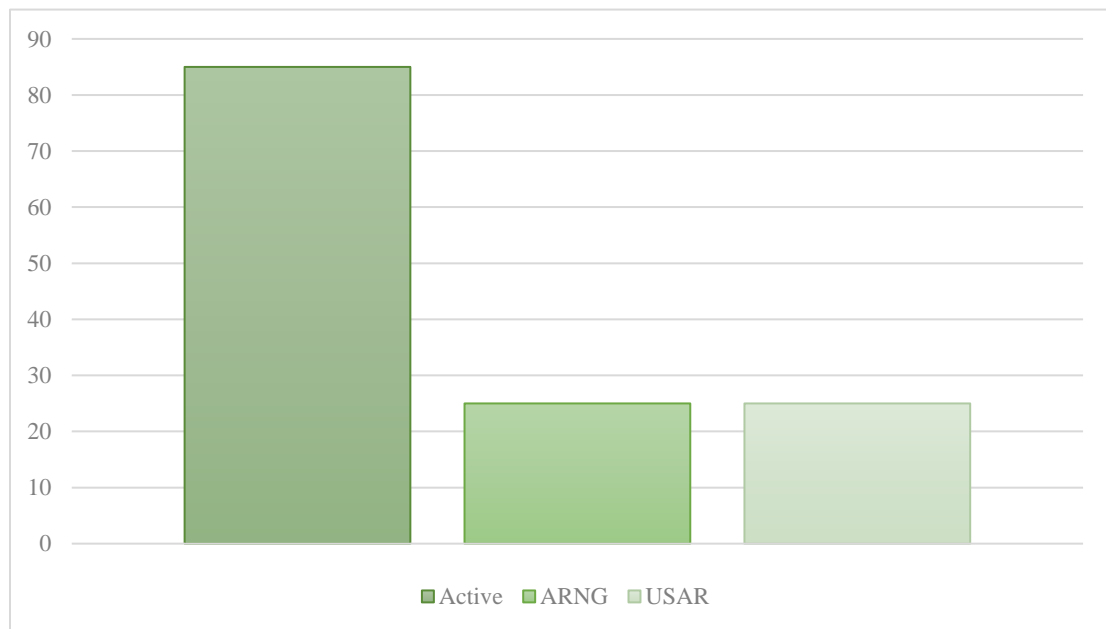


Figure 3.2: Annual Cost per Soldier in FY2012 Dollars (dollars in thousands)¹²⁰⁴

¹²⁰¹ Figure generated using the ARNG’s drill paycheck calculator available at <https://www.nationalguard.com/pay/calculator> (accessed 21 June 2018).

¹²⁰² Base pay figures for the U.S. Army in 2018 are available at DFAS, “Military Pay Charts – 1949 to 2018,” <https://www.dfas.mil/militarymembers/payentitlements/military-pay-charts.html> (accessed 21 June 2018); Housing allowance is calculator available at Defense Travel Management Office, “BAH Calculator,” <http://www.defensetravel.dod.mil/site/bahCalc.cfm> (accessed 21 June 2018).

¹²⁰³ Jed Judson, “The Army is Creating a Modernization Command to Keep Projects on Track,” *Defense News*, 09 October 2017, <https://www.defensenews.com/digital-show-dailies/ausa/2017/10/09/the-army-is-creating-a-new-modernization-command-to-keep-projects-on-track/> (accessed 28 February 2018).

¹²⁰⁴ The Army National Guard, “The Army National Guard: A Great Value for America White Paper,” 17 February 2012 (Version 1), 2,

The army's investment in new technology reflected a broader shift in U.S. national security strategy from counterterrorism to great power conflict and changes to the character of war. The 2018 U.S. National Defense Strategy states: "We are facing increased global disorder, characterized by a decline in the long-standing rules-based international order—creating a security environment more complex and volatile than any we have experienced in recent memory. Inter-state strategic competition, not terrorism, is now the primary concern in U.S. national security."¹²⁰⁵ The strategy also acknowledged how rapid technological change in areas such as robotics is altering the character of war.¹²⁰⁶

In response to these changes to the character of war and the operating environment, the army revised its operations doctrine—now called FM 3-0—in October 2017. This new version, called Multi-Domain Battle (renamed Multi-Domain Operations in May 2018), refocused army doctrine on combined arms warfare against a peer or near-peer adversary, after over a decade of focusing on counterinsurgency and counterterrorism.¹²⁰⁷ To adapt and survive in this new operational context, FM 3-0 called for the army to conduct multi-domain operations that sought to synchronize and employ weapons systems and tactics across all domains of warfare: air, land, maritime, space, and the information environment

<http://arng.ng.mil/resources/News/Publications/Documents/ValuewhitePaper17Feb2012FinalDARNGapprovedv9.pdf> (accessed 25 August 2016).

¹²⁰⁵ U.S. Department of Defense, *Summary of the 2018 National Defense Strategy of the United States* (Washington, DC: Government Printing Office, 2018), 1.

¹²⁰⁶ Ibid.

¹²⁰⁷ U.S. Army, *FM 3-0: Operations* (Washington, DC: Government Printing Office, 2017), forward; TRADOC, "General Townsend Announces MDO at LANPAC," *YouTube*, 23 May 2018.

(includes cyberspace).¹²⁰⁸ By doing this, the army intended for its units—working with joint and allied partners—to identify, create, and exploit windows of opportunities to converge multi-domain capabilities “for best effect” while preventing the enemy from doing the same.¹²⁰⁹ What that meant was that a maneuver commander had to be able to locate, suppress, and destroy enemy air and artillery systems (i.e. creating a window of opportunity) using electronic, kinetic, and cyber capabilities that enable friendly forces to wage offensive or defensive operations.

In short, success on the battlefield, the army believed, required more than the integration of tanks, artillery, infantry, and airpower, as was the case during the AirLand Battle era. Now, the army had to integrate all of those capabilities with cyber, electronic attack, information operations, space-based platforms, and, in some cases, naval forces.¹²¹⁰ Such responsibilities were typically reserved for the highest level commanders in the army; but now mid and senior-level commanders on the battlefield now had to be prepared to manage—or at least consider—these disparate capabilities.

The anticipated rise in the technical sophistication of warfare and the shift in U.S. strategy towards great power competition, moreover, convinced the army in the summer of 2018 to extend initial entry training for new infantry soldiers from 14 to 22 weeks, adding more time for weapons training, vehicle familiarization, hand-to-

¹²⁰⁸ U.S. Army, *FM 3-0: Operations* (2017), 1-6, 1-7.

¹²⁰⁹ *Ibid.*

¹²¹⁰ *Ibid.*

hand combat, and combat lifesaver training.¹²¹¹ Extending initial entry training “is about increasing our readiness and preparing for the future,” Sergeant Major of the Army Daniel Dailey explained in June 2018.¹²¹² And it is “the first step toward achieving our vision of the Army of 2028. With more time to train on critical infantry tasks, we’ll achieve greater lethality.”¹²¹³ The Army of 2028 is an initiative announced in June 2018 by the Secretary of the Army Mark Esper to increase the readiness of the army to fight a peer or near-peer adversary, like China, while retaining its ability to wage counterinsurgency and counter-terrorism operations.¹²¹⁴ And a primary focus of the initiative was to develop and retain high-skilled soldiers.¹²¹⁵

These changes to army training, doctrine, and technology caused senior army leaders to re-examine ARNG training and readiness standards. In 2015, the ARNG Director, LTG Timothy Kadavy (2015-19), concluded that the current 39-day training period—a standard set in 1916—did not account for major changes to the art and science of warfare that had occurred over the last century.¹²¹⁶ Army CSA Mark

¹²¹¹ Devon Suits, “Army to Extend OSUT for Infantry Soldiers,” *U.S. Army*, 25 June 2018, https://www.army.mil/article/207623/army_to_extend_osut_for_infantry_soldiers (accessed 25 June 2018).

¹²¹² Ibid.

¹²¹³ Ibid.

¹²¹⁴ David Vergun, “Army Secretary Esper Announces ‘Army Vision’ for 2028,” *Army Times*, 05 June 2018, https://www.army.mil/article/206488/army_secretary_esper_announces_army_vision_for_2028 (accessed 25 June 2018).

¹²¹⁵ Ibid.

¹²¹⁶C Todd Lopez, “Army National Guard Director: Two Weeks Annually, Weekend per Month Enough?”

Milley (2015-19) echoed these concerns in an October 2015 speech to the Association of the U.S. Army, stating “We want the Guard and Reserve to be more responsive. It is possible that if a conflict breaks out in the future, it’ll happen in a faster rate of speed. Thirty-nine days of training ahead of time and counting on post-mobilization training may not be a wise thing for us to do as we go forward.”¹²¹⁷ After a year as director, Kadavy moved to address these training and readiness concerns through the ARNG 4.0 initiative.

The purpose of ARNG 4.0 is to improve the guard’s ability “to rise to the challenges of the 21st century and meet the requirements of the Total Army.”¹²¹⁸ Among other things, the initiative aimed to increase training for guard Armored and Stryker Brigade Combat Teams (ABCTs and SBCTs) from 39 to 63 days.¹²¹⁹ Those units are also moving, as of 2018, to a 4:1 deployment to dwell time ratio from the standard 5:1, as set by Secretary Gates a decade earlier.¹²²⁰ ARNG 4.0 is also attempting to increase deployment opportunities for guard maneuver units, to include division headquarters. In 2016, the 29th Infantry Division (Maryland and Virginia ARNG) Headquarters deployed to Kuwait and Jordan to serve as a headquarters from

https://www.army.mil/article/158810/army_national_guard_director_two_weeks_annually_weekend_per_month_enough (accessed 17 June 2018).

¹²¹⁷ Tan, “Top Army General Outlines Plans for New Brigades, New Technologies.”

¹²¹⁸ ARNG, “ARNG 4.0: Focused Readiness,” *National Guard Bureau*, undated 2017, <http://www.nationalguard.mil/Resources/ARNG-Readiness/> (accessed 25 May 2018).

¹²¹⁹ Ibid.

¹²²⁰ Matthew Cox, “Army Guard Plans for Short-Notice Deployments, More Training Days,” *Military.Com*, 02 May 2018, <https://www.military.com/daily-news/2018/05/02/army-guard-plans-short-notice-deployments-more-training-days.html> (accessed 26 May 2018).

Operation Spartan Shield—a task force that serves as the quick reaction force for a Mideast crisis.¹²²¹ This was the first time that the 29th commanded subordinate units in a deployed environment since WWII.¹²²² Guard division headquarters have continued to rotate into this mission over the past four years. BCT's are also receiving new missions. In 2018, the 278th Armored Cavalry Regiment of the Tennessee ARNG deployed to Poland as part of NATO's enhanced forward presence mission to assure NATO partners in Eastern Europe that the alliance can and is willing to defend against Russian aggression in Eastern Europe.¹²²³

To improve its readiness for such deployments, the ARNG gained additional opportunities to attend NTC and JRTC and to integrate with active army units for exercises. In 2016, Kadavy and Milley restarted a modified version of the Roundout Program, known as the Associated Unit program. The program integrates guard and active duty combat and combat support units from the brigade-level down in joint training exercises; and, eventually, these partnered units will conduct deployments

¹²²¹ U.S. Army Center for Army Lessons Learned, *Observation Report: USARCENT Intermediate Division Headquarters (IDHQ) Operation Spartan Shield, 29th Infantry Division* (Ft. Leavenworth: CALL, 2018), 2.

¹²²² Ibid.

¹²²³ CNGB, *2019 Posture Statement*, 17; For more on the Enhanced Forward Presence initiative, see NATO, "NATO's Enhanced Forward Presence Factsheet," May 2017, https://www.nato.int/nato_static_fl2014/assets/pdf/pdf_2017_05/1705-factsheet-efp.pdf (accessed 21 June 2018).

together.¹²²⁴ Meanwhile, the number of guard BCTs rotating through NTC and JRTC increased from two a year to four.¹²²⁵

In short, Kadavy and Milley attempted to revolutionize guard maneuver units by expanding and intensifying training and by providing units more opportunities to deploy and integrate with active counterparts. And they did so because army doctrine demanded highly trained units and because U.S. national security strategy overstretched the active army. Additionally, the re-emergence of great power competition, which became the focus of army strategy, increased the risk of large-scale conventional combat operations that could quickly overwhelm the small active army, whose forces remained spread across multiple theaters.

Increased and intensified training and deployment opportunities for ARNG maneuver units will almost certainly improve their ability to reinforce and replace active units. However, the challenge for DOD will be to ensure that increased training and deployments do not eliminate the guard's cost advantage over the active duty army or harm recruitment and retention, especially considering the unprecedented operational tempo that guardsmen have faced in recent years which, in the words of one defense journalist, is "pushing the National Guard to the brink."¹²²⁶

¹²²⁴ Michelle Tan, "Army units change patches as part of active, Guard, and Reserve pilot program," *Army Times*, 19 August 2016.

¹²²⁵ CNGB, *Posture Statement: 2019* (Washington, DC: NGB, 2019), 11; Erich B. Smith, "Readiness Enhanced with Army National Guard," *National Guard Bureau*, 26 February 2018, <http://www.nationalguard.mil/News/Article/1450485/readiness-enhanced-with-army-national-guard-40/> (accessed 27 February 2018).

¹²²⁶ Jeff Schogol, "Constant mobilizations may be pushing the National Guard to the brink," *Task and Purpose*, 17 March 2021.

How the Israel Defense Force (IDF) reserve handled similar pressures is the topic of the next case study. Unlike the U.S. Army, the IDF practices near universal conscription to build and maintain the active and reserve components of its armed forces. Thus, all reservists have at least two years or more of active service before entering the reserves. Nevertheless, as the next two chapters show, even reservists with extensive active experience struggled to maintain readiness in the era of high-tech and high-skilled war

Chapter 4: The Heights of Reserve Performance

“Every squad commander is a general.”

Palmach motto¹²²⁷

Since its founding as a national state in 1948, Israel’s existence has been under constant dire threat. Surrounded by larger hostile neighbors with little geostrategic depth, Israel lacked the time, space, and resources—human, material, and financial—to rely solely on full-time professional soldiers for defense. Instead, it had to maximize its military potential by developing a highly trained reserve composed of former soldiers, who in the event of war, reinforced and augmented the active conscript force and a cadre of professional officers and technicians. And for the first three decades of its existence, Israel succeeded in swiftly mobilizing and fielding armies that proved capable of outperforming and defeating internal and external adversaries within 24 to 48 hours of mobilization.

Israel succeeded in creating such an effective reserve for several reasons. First, it employed a cadre system—like the German Army did in the world wars—that placed veteran leaders in command of reserve brigades and divisions. Second, most reservists had extensive training acquired in their three years of conscript duty and from around 30 days a year or more of annual training while in the reserves. That training, moreover, was planned and overseen by long-service professionals, many of whom had combat experience. And, finally, Israeli reservists had the advantage of

¹²²⁷ Staff Writers, “Organizational Structure and Combat Forces,” http://www.irgon-haagana.co.il/show_item.asp?levelid=61005&itemid=49699&itemtype=3&prm=t=4 (accessed 12 August 2018).

fighting adversaries who suffered from serious deficiencies in leadership, personnel, and tactical skill. These factors enabled Israel to develop what one historian called history's best "citizens army" during its formative wars: the 1948 War of Independence, the 1956 Suez Crisis, the 1967 Six-Days War, and the 1973 Yom Kippur War.¹²²⁸ This chapter examines how and why these conditions enabled Israel to field such an effective reserve army. In doing so, it sets the stage for an examination in chapter 5 of how changes to these conditions following the 1973 Yom Kippur War caused a steep decline in Israeli reserve performance.

Section 1: Laying the Foundations

Understanding how Israel developed a highly capable reserve requires an examination of the history of the militias from which the Israel Defense Forces (IDF) emerged in 1948. Early Israeli political and military leaders formed militias to protect their burgeoning communities during the British Mandate (1919-48). And through these experiences, they formed policies and practices that the IDF later employed to build a highly effective reserve army. Those practices included: universal military service, rigorous training schedules for part-time fighters, an emphasis on aggressive, offensive-minded small-unit leadership, and the placement of veteran officers in charge of part-time soldiers. Additionally, the Jewish immigrants who came to Palestine during the Mandate and in the decades leading up

¹²²⁸ See cover to Zeev Schiff's *A History of the Israeli Army: 1874 to the Present- Israel's Foremost Military Expert Tells the Story of The Worlds Best Citizen Army* (New York: MacMillan, 1985).

to it had unique backgrounds that imbued them with the will, and in many cases, the skills to fight, lead, and sacrifice—traits that made them excellent soldiers.

Jewish settlers began arriving in Ottoman Palestine from Europe in the 1880s and 90s. Many came to Palestine to flee rising anti-Semitic violence and discrimination in Europe.¹²²⁹ Upon arrival to Palestine, which had a population of around 380,000 (27,000 of whom were Jewish), the settlers started purchasing land and establishing communities. Collectively these communities—and the Palestinian Jewish community as a whole—were called the *Yishuv* (Hebrew for settlement).¹²³⁰

Following WWI, the Yishuv established its first formal defense force, known as the *Haganah* (Hebrew for defense) in response to rising violence and civil unrest in Palestine in 1920.¹²³¹ Such unrest resulted from simmering Arab anger in response to the 1917 Balfour Declaration in which Britain, which had conquered Palestine during WWI, expressed its support for the “establishment in Palestine of a national home for the Jewish people.”¹²³² Initially, the Arab population of Palestine protested the declaration peacefully.¹²³³ But the protests turned violent during the *Nabi Musa* festival in April 1920, when Palestinian notables called for resistance to the Balfour

¹²²⁹ Gunther Rothenberg, *The Anatomy of the Israeli Army* (London: B.T. Batsford, 1979), 14; Anita Shapira, *Israel: A History* (Waltham: Brandis University Press, 2012), 7, 12.

¹²³⁰ Shapira, *Israel: A History*, 28-30.

¹²³¹ Mordechai Naor, *Ha'Hagana* (Tel Aviv: IDF, 1985), 54.

¹²³² Bruce Hoffman, *Anonymous Soldiers: The Struggle for Israel, 1917-1947* (New York: Vintage Books, 2015), 6.

¹²³³ Gudrun Kramer, *A History of Palestine: From the Ottoman Conquest to the Founding of the State of Israel* (Princeton: Princeton University Press, 2011), 207.

Declaration, leading to violent anti-Jewish riots.¹²³⁴ Eventually, the British deployed forces to quell the unrest, but only after the deaths of five Jews and four Arabs.¹²³⁵

The Haganah operated in secret under the leadership of the Labor Zionists—the dominant political organization in the Yishuv.¹²³⁶ The Labor Zionists viewed the Haganah as a defensive force that operated as an “emergency instrument that can prove useful in difficult times but is better if not needed.”¹²³⁷ And they structured it as a people’s militia composed primarily of farmers and laborers, including women, who served voluntarily on a part-time basis.¹²³⁸ About a dozen members served full-time.¹²³⁹

Tasked with defending the Yishuv, the Haganah faced an uncertain and difficult security environment. It had to operate under the rule of the British, who gained formal control of Palestine following the San Remo Conference in April 1920.¹²⁴⁰ In theory, the British were supportive of the Yishuv, as evidenced by the Balfour Declaration. But, in reality, British authorities on the ground held generally

¹²³⁴ Ibid., 208; Anita Shapira, *Land and Power: The Zionist Resort to Force, 1881-1948* (Stanford: Stanford University Press, 1999), 110.

¹²³⁵ Hoffman, *Anonymous Soldiers*, 11.

¹²³⁶ Reuven Gal, *A Portrait of the Israeli Soldier* (New York: Praeger, 1986), 3.

¹²³⁷ Shapira, *Land and Power*, 125.

¹²³⁸ Rothenberg, *The Anatomy of the Israeli Army*, 23; Hoffman, *Anonymous Soldiers*, 9; Van Creveld, *The Sword and the Olive*, 26.

¹²³⁹ Rothenberg, *The Anatomy of the Israeli Army*, 23; Van Creveld, *The Sword and the Olive*, 26.

¹²⁴⁰ Shapira, *Israel: A History*, 75.

negative opinions of the Jewish settlers and tended to favor the Arab majority.¹²⁴¹

What is more, they barred Jews from owning weapons, forcing the Haganah to operate clandestinely.¹²⁴² But the biggest challenge facing the Haganah was that the Jewish community was vastly outnumbered by the Arab Muslims, as shown in Table 4.1 below. And the Muslim community grew increasingly hostile to the Yishuv during the Mandate period, especially as Jewish immigration spiked in the 1930s and 40s.

Table 4.1: Demographics of Palestine During the British Mandate ¹²⁴³			
Religion	1922	1931	1946
Muslim	640,798	777,403	1,175,196
Jewish	94,752	176,648	602,586
Christian	76,194	93,029	148,910
Other	8,515	10,314	15,637
Total	820,259	1,057,214	1,942,349

Yet social and cultural conditions in the Yishuv and the Haganah's structure helped offset some of these disadvantages. Namely, it could recruit immigrants, who, in the words of one of the IDF's founders, were "young, passionately idealistic, and had in many cases already experienced the taste of paramilitary underground activities when defending the ghettos of Eastern Europe against anti-Semitic pogroms."¹²⁴⁴ And among these immigrants were military veterans who had fought in the British or Russian armies in WWI. Some also had experience as trainers—

¹²⁴¹ Hoffman, *Anonymous Soldiers*, 7.

¹²⁴² Staff Writers, "The Foundations of the Hagana," http://www.irgon-haagana.co.il/show_item.asp?levelid=61005&itemid=49697&itemtype=3&prm=t=4 (accessed 12 August 2018).

¹²⁴³ Kramer, *A History of Palestine*, 183.

¹²⁴⁴ Yigal Allon, *The Making of Israel's Army* (London: Sphere Books, 1971), 18.

experience they used to develop Haganah training and leadership courses in the 1920s¹²⁴⁵

For much of the 1920s, the Haganah was able to train and operate in peace; but rising Jewish immigration to Palestine inflamed tensions between the Palestine Arab and Jewish communities. That tension came to a head in late August 1929, when violence erupted over Jewish prayer rights at the Western Wall in Jerusalem. The Haganah was caught unprepared by the scale and intensity of subsequent fighting.¹²⁴⁶ Nevertheless, they managed to mobilize about 300 members at the outset, dispersing them among settlements that accepted protection.¹²⁴⁷ And these fighters—sometimes with help from British police and local civilians—were generally able to repulse Arab attacks in urban areas, taking advantage of the fact that many of the assailants lacked firearms and mostly operated as mobs, not organized units.¹²⁴⁸ Ultimately, 133 Jews and 116 Arabs died in the fighting.¹²⁴⁹

The leadership of the Yishuv was dissatisfied by the Haganah's performance during the 1929 riots, leading many to conclude that they had to invest more in

¹²⁴⁵ Van Creveld, *The Sword and the Olive*, 24-25.

¹²⁴⁶ Rothenberg, *The Anatomy of the Israeli Army*, 24-25.

¹²⁴⁷ Benny Morris, *Righteous Victims: A History of the Zionist-Arab Conflict, 1881-1998* (New York: Vintage Books, reprint edition, 2011), 119.

¹²⁴⁸ Hillel Cohen, *Year Zero of the Arab-Israeli Conflict 1929* (Waltham: Brandis University Press, 2015), 106; Staff Writers, "Activity during the Early Years," http://www.irgon-haagana.co.il/show_item.asp?levelid=61005&itemid=49698&itemtype=3&prm=t=4 (accessed 12 August 2018); Rothenberg, *The Anatomy of the Israeli Army*, 24; Morris, *Righteous Victims*, 114-16.

¹²⁴⁹ Morris, *Righteous Victims*, 116.

defense.¹²⁵⁰ To enhance its self-defense capabilities, the Yishuv grew the Haganah to over 15,000 members—including a cadre of full-time officers and administrators to manage daily operations—during the 1930s.¹²⁵¹ The influx of thousands of Western European immigrants, who were fleeing Hitler’s rise, helped sustain that growth. This wave of immigrants, moreover, was different in that many of them came from more educated and affluent backgrounds; some even had experience working in mid and senior-level positions in industry and government.¹²⁵² Thus, the Haganah gained access to a higher skilled pool of recruits and administrators. More immigrants also enabled the Yishuv to widen its tax base, helping fund militia reforms.¹²⁵³

The 1936 Arab Revolt provided the Haganah an opportunity to test and improve its new capabilities. The revolt, which occurred in two phases between 1936 and 1939, erupted as a result of rising Arab anger over the aforementioned spike in Jewish immigration.¹²⁵⁴ To pressure the British to halt immigration, Palestinian Arabs embarked on a labor strike that turned violent, when Arab militias attacked Jewish civilians in mid-April.¹²⁵⁵

¹²⁵⁰ Rothenberg, *The Anatomy of the Israeli Army*, 23-24.

¹²⁵¹ Van Creveld, *The Sword and the Olive*, 43.

¹²⁵² Kramer, *A History of Palestine*, 240.

¹²⁵³ Van Creveld, *The Sword and the Olive*, 38; Hoffman, *Anonymous Soldiers*, 38-39.

¹²⁵⁴ Rothenberg, *The Anatomy of the Israeli Army*, 18.

¹²⁵⁵ Benny Morris, *1948: A History of the First Arab-Israeli War* (New Haven: Yale University Press, 2008), 16; Eyal, “The Arab Revolt, 1936-1939 A Turning Point in the Struggle for Palestine,” in *A Never-ending Conflict: A Guide to Israeli Military History* (New York: Praeger, 2004), 22.

Although better organized than in 1929, the Arabs lacked the firepower to compete with the British and the Haganah.¹²⁵⁶ Arab forces, moreover, struggled to breach the fortified defenses manned by Haganah members around Jewish settlements.¹²⁵⁷ Thus, Palestinian notables agreed to a truce with the British in October 1936. But they took up arms again a year later to resist a new British proposal—which Yishuv leaders accepted—to partition Palestine into a Jewish-controlled and an Arab-controlled area.¹²⁵⁸ Yet, still, the Arabs lacked the combat power to defeat the British and the Yishuv. What is more, their paramilitary formations suffered around 3,000 to 6,000 killed in action, while thousands more were imprisoned or sent into exile.¹²⁵⁹ These high losses, combined with the arrival of additional British forces in 1939, ended the revolt.¹²⁶⁰

During the second half of the revolt, the Haganah had the opportunity to enhance its small unit combat capabilities by partnering with the British to form the Special Night Squads (SNS). Established in 1938 under the leadership of British army captain Charles Orde Wingate, the SNS was composed of squad-sized units of select Haganah members and British soldiers who conducted night raids on Arab forces

¹²⁵⁶ Laila Parsons, *The Commander: Fawzi al-Qawuqji and the Fight for Arab Independence 1914-1948* (New York: Hill and Wang, 2016), 127-129.

¹²⁵⁷ Eyal, “The Arab Revolt, 1936-1939 A Turning Point in the Struggle for Palestine,” in *A Never-Ending Conflict*, 24.

¹²⁵⁸ Morris, *1948*, 18.

¹²⁵⁹ *Ibid.*, 21.

¹²⁶⁰ *Ibid.*, 19-20.

inside Palestine.¹²⁶¹ By working with Wingate, who was an expert in irregular warfare, Haganah leaders learned how to empower junior leaders to ensure they could think and act independently. Additionally, as Yigal Allon—who served in the SNS and became a senior IDF commander in the 1948 War—recalled, Wingate helped teach the Haganah how to patrol, how to conduct ambushes, and raids, which “effectively pulled the Haganah out of its trenches” and made it “adopt a more active kind of defense.”¹²⁶² Although the British abolished the SNS when the revolt ended, its legacy lived on through Haganah leaders who formed the IDF.¹²⁶³

Following the Arab Revolt, the Haganah reorganized into three groups: the Field Corps, the Home Guard, and the *Gadna*. Men between the ages of 18 and 26 served in the Field Corps, which was responsible for defending settlements and offensive operations.¹²⁶⁴ While in the Field Corps, men trained six hours each month.¹²⁶⁵ The Home Guard, meanwhile, was composed of men and women between ages 27-50; their job was to defend settlements, although some served in offensive

¹²⁶¹ Tom Segev, *One Palestine, Complete: Jews and Arabs Under the British Mandate* (New York: Owl Books, 2001), 430; Schiff, *A History of the Israeli Army*, 13.

¹²⁶² Allon, *The Making of Israel's Army*, 21.

¹²⁶³ Segev, *One Palestine, Complete: Jews and Arabs Under the British Mandate*, 430.

¹²⁶⁴ Staff Writers, “Organizational Structure and Combat Forces,” http://www.irgon-haagana.co.il/show_item.asp?levelid=61005&itemid=49699&itemtype=3&prm=t=4 (accessed 12 August 2018).

¹²⁶⁵ Staff Writers, “Command and Training,” http://www.irgon-haagana.co.il/show_item.asp?levelid=61005&itemid=49701&itemtype=3&prm=t=4 (accessed 12 August 2018).

units.¹²⁶⁶ They trained six hours every three months.¹²⁶⁷ The Gadna (a Hebrew acronym for “youth battalions”) was a voluntary organization for boys and girls 15 to 18 years old.¹²⁶⁸ Its primary purpose was to train Jewish youth to defend the Yishuv, while essentially acting as an emergency reserve.¹²⁶⁹ Training for the Gadna occurred twice a week in the evenings and two Saturdays a month.¹²⁷⁰ In short, the Haganah had created a three-tier reserve. But unlike a traditional reserve system, as seen in Europe, the Haganah’s reserve lacked a sizable full-time force to back-up.

The most important structural change for the Haganah during this period was the creation of a mobile strike force known as the *Palmach* (a Hebrew acronym for assault companies, *Plugot Machatz*) in 1941.¹²⁷¹ The Haganah national command—in cooperation with the British—created the Palmach to defend Palestine against a feared Axis invasion.¹²⁷² The British chose to support such an effort based in part on the assessment of A.W. Lawrence (the brother of T.E. Lawrence), a member of the British Special Operations Executive. In Lawrence’s estimation, the Yishuv had a high military potential, as its members were “mentally tough, highly disciplined and

¹²⁶⁶ Staff Writers, “Organizational Structure and Combat Forces.”

¹²⁶⁷ Staff Writers, “Command and Training.”

¹²⁶⁸ Staff Writers, “Organizational Structure and Combat Forces.”

¹²⁶⁹ Ibid.

¹²⁷⁰ Ibid.

¹²⁷¹ Staff Writers, “Activity during the Early Years,” http://www.irgon-haagana.co.il/show_item.asp?levelid=61005&itemid=49698&itemtype=3&prm=t=4 (accessed 12 August 2018).

¹²⁷² Colin Shindler, *A History of Modern Israel* (New York: Cambridge University Press, 2008), 36-37.

used to guerrilla warfare,” making them ideal for waging an insurrection against the Nazis if they occupied Palestine.¹²⁷³

Initially, the Palmach was composed of 600 men, all of whom were part-time volunteers mostly from agricultural settlements (*Kibbutzim*), organized into six platoons.¹²⁷⁴ Over the next seven years, it became, in the words of one historian, “the heart and brain” of the Haganah.¹²⁷⁵ Many future Israeli commanders and politicians, including nearly all IDF chiefs of staff who served between 1953 and 1983, were Palmach veterans.¹²⁷⁶

Those interested in joining the Palmach underwent an intensive selection and training process overseen by the group’s commander, Yitzhak Sadeh. A decorated WWI veteran from the Russian army, Sadeh immigrated to Palestine and served in various Jewish militia units during the 1920s and 30s.¹²⁷⁷ As the Palmach commander, he handpicked the best and brightest leaders from the Haganah to build his leadership cadre, often choosing men like Yigal Allon and Moshe Dayan, who had served in the SNS.¹²⁷⁸

¹²⁷³ Hoffman, *Anonymous Soldiers*, 116.

¹²⁷⁴ Staff Writers, “Organizational Structure and Combat Forces.”; Schiff, *A History of the Israeli Army*, 18.

¹²⁷⁵ Gal, *A Portrait of the Israeli Soldier*, 7.

¹²⁷⁶ Yitzhak Rabin, *The Rabin Memoirs* (Berkeley: University of California Press, expanded edition, 1997), 13; Van Creveld, *The Sword and the Olive*, 51.

¹²⁷⁷ Schiff, *A History of the Israeli Army*, 17.

¹²⁷⁸ Ibid.; Martin Van Creveld, *Moshe Dayan* (London: Weidenfeld & Nicolson, 2004), 47, 52.

Its training program aimed to grow independent-minded and empowered tactical leaders, as evidenced by its motto, “every squad commander is a general.”¹²⁷⁹ The development of this mindset was important because it would help the Haganah—and eventually, the IDF—produce and sustain a military culture centered around aggressive and flexible operations. Such operations would play a critical role in helping the IDF offset the quantitative advantages of its many adversaries.

During its first year of operations, the Palmach prepared for a guerilla war against the Nazis. But it started developing a more conventional-style force structure when the threat of invasion and occupation faded after the German defeat at el-Alamein in 1942. Thus, between 1941 and 1944, its ranks doubled to around 1,300 members, including 300 women.¹²⁸⁰ At the same time, it began organizing its platoons into companies, battalions, and eventually brigade-level organizations.¹²⁸¹ These brigades, moreover, were backed by a reserve of around 400 Palmach veterans who had served at least two years.¹²⁸² Reservists still trained a couple of weeks a year.¹²⁸³ But to be a leader in the reserve, one had to complete three to four years of regular Palmach service.¹²⁸⁴ In doing so, the Palmach ensured that its reserve

¹²⁷⁹ Gal, *A Portrait of the Israeli Soldier*, 7; Staff Writers, “Organizational Structure and Combat Forces.”

¹²⁸⁰ Schiff, *A History of the Israeli Army*, 19.

¹²⁸¹ Allon, *The Making of Israel’s Army*, 30; Rabin, *The Rabin Memoirs*, 14.

¹²⁸² Allon, *The Making of Israel’s Army*, 32; Schiff, *A History of the Israeli Army*, 19.

¹²⁸³ Ibid.

¹²⁸⁴ Ibid.

component had experienced, veteran leadership. The IDF would employ similar practices during and after the 1948 War of Independence.

Section 2: The Citizens Army Goes to War

The 1948 War started as a civil war between the Yishuv and the Palestinian Arabs in late 1947, as the British—exhausted financially and militarily by WWII—decided to end their rule over Palestine and withdraw no later than May 1948.¹²⁸⁵ As the British departure loomed, the United Nations (UN) recommended dividing Palestine into an Arab-controlled and Jewish-controlled state—a plan that the Yishuv accepted with reservations and the Palestinian Arabs and their allies rejected, triggering a violent confrontation.¹²⁸⁶

The Arabs had reason to be confident they could defeat the Yishuv militarily. They had the potential to field a much larger military force, as their population was around twice the size of the Yishuv.¹²⁸⁷ The Palestinians also had the support of neighboring Arab states, whose armies collectively outnumbered and outgunned the Haganah, which lacked armored forces and artillery at the start of the war.¹²⁸⁸

¹²⁸⁵ Ahron Bregman, *Israel's Wars: A History Since 1947* (New York: Routledge, third edition, 2010), 11-12, 14.

¹²⁸⁶ *Ibid.*, 12.

¹²⁸⁷ Gal, *A Portrait of the Israeli Soldier*, 9.

¹²⁸⁸ Kenneth Pollack, *Arabs at War: Military Effectiveness, 1948-1991* (Lincoln: Bison Books, 2004), 15, 169.

Table 4.2 Haganah/IDF Strength 1947-48 (Reproduced with modifications from Rothenberg, <i>The Anatomy of the Israeli</i>) ¹²⁸⁹			
	December 1947	15 May 1948	12 October 1948
Mobilized Strength	4,000	32,500	80,000
Units	<ul style="list-style-type: none"> • 4 Palmach Battalions • Unknown numbers of Haganah companies 	<ul style="list-style-type: none"> • 3 Palmach Brigades • 6 Haganah Brigades 	<ul style="list-style-type: none"> • 3 Palmach Brigades • 9 Haganah Brigades
Artillery and Anti-Aircraft Guns	<ul style="list-style-type: none"> • 0 	<ul style="list-style-type: none"> • 6 – 65mm • 10 – 20mm 	<ul style="list-style-type: none"> • 250, including 60 75mm
Mortars	<ul style="list-style-type: none"> • ~50 – 3 inch • 650 – 2 inch 	<ul style="list-style-type: none"> • 105 – 3 inch • 682 – 2 inch 	<ul style="list-style-type: none"> • 12 – 120mm • 33 – 6 inch • 389 – 3 inch • 618 – 2 inch
AT Weapons	<ul style="list-style-type: none"> • 10 	<ul style="list-style-type: none"> • 75 	<ul style="list-style-type: none"> • 675
Light and medium machine guns	<ul style="list-style-type: none"> • 775 	<ul style="list-style-type: none"> • 1,550 	<ul style="list-style-type: none"> • 7,550
Rifles	<ul style="list-style-type: none"> • 10,500 	<ul style="list-style-type: none"> • 22,000 	<ul style="list-style-type: none"> • 60,000
Sub machine guns	<ul style="list-style-type: none"> • 3,700 	<ul style="list-style-type: none"> • 11,000 	<ul style="list-style-type: none"> • 22,000
Tanks	<ul style="list-style-type: none"> • 0 	<ul style="list-style-type: none"> • 3 inoperable 	<ul style="list-style-type: none"> • 10 – H-35 • 1 – Sherman • 2 – Cromwell
Planes	<ul style="list-style-type: none"> • 12 – light 	<ul style="list-style-type: none"> • 10 – Light 	<ul style="list-style-type: none"> • 10 – ME-109 • 14 – Spitfire • 3 – B-17 • 1 – DC-3
Warships	<ul style="list-style-type: none"> • 0 	<ul style="list-style-type: none"> • 0 	<ul style="list-style-type: none"> • 3 – Corvette

The Yishuv also had little territorial depth to absorb an invasion, as its population was concentrated in a narrow strip of land along the Mediterranean coast. And the Arabs held much of the high ground along the main avenues of approach to Jewish population centers in northern and central Palestine, including Jerusalem.¹²⁹⁰ The Yishuv, moreover, did not have a strong ally to call upon because the British and

¹²⁸⁹ Rothenberg, *The Anatomy of the Israeli Army*, 58.

¹²⁹⁰ Rabin, *The Rabin Memoirs*, 23.

Americans avoided choosing sides, as some feared that an independent Jewish state would align with the Soviets given the socialist leanings of the Yishuv's leaders.¹²⁹¹

But the qualitative military balance favored the Yishuv. Over the previous three decades, it had developed an army of cohesive units imbued with a high will to fight. And, as discussed above, the Haganah—and especially those with Palmach backgrounds—had received extensive training and some combat experience over the previous two decades. In late 1947, Palmach members had completed around one-year of training on average; and Haganah members had an average of 50 days of training.¹²⁹² Some of the new immigrants flooding into the Yishuv after WWII also had experience serving in state armies or fighting as partisans in Europe against the Nazis.¹²⁹³ The Palestinian Arabs, meanwhile, had lost many of their best and most experienced fighters during the 1936 Arab Revolt.

The Yishuv, despite its small size, could also maximize its resources by drawing on nearly all members of its society. In late 1947, the Haganah had 45,000 members (about 2,100 were members of the Palmach).¹²⁹⁴ There were also two smaller right-wing organizations, the Irgun and Stern Gang (about 3,000 fighters), who operated independently and sometimes at odds with the Haganah.¹²⁹⁵

¹²⁹¹ Rothenberg, *The Anatomy of the Israeli Army*, 42-43.

¹²⁹² *Ibid.*, 51.

¹²⁹³ Staff Writers, "Staff H.Q. Haganah," *The Palestine Post*, 01 January 1948, 4.

¹²⁹⁴ Bregman, *Israel's Wars*, 15.

¹²⁹⁵ *Ibid.*

Individuals under 18, including members of the Gadna, and individuals too old to fight, served in a home guard, filling valuable combat support roles.¹²⁹⁶

The Yishuv was able to develop such capabilities because its society feared defeat meant national annihilation. Just a few years earlier, Hitler had murdered millions of Jews in the Holocaust, and many survivors had fled to Israel. Neighboring Arab states, moreover, were threatening to destroy the Yishuv, leading to fears of a second Holocaust.¹²⁹⁷

In terms of demographics, the members of the Yishuv were much younger than their Palestinian counterparts. During the 1920s and 30s, the Yishuv's leaders purposely sought young immigrants because they considered them "good pioneering material" for settling and developing the country.¹²⁹⁸ What is more, many of these young men and women were well-educated and physically fit.¹²⁹⁹ The Palestinians, in contrast, had an older population, which suffered from widespread illiteracy.¹³⁰⁰

Still, the Yishuv's had to contend with a multitude of military weaknesses and shortfalls. It, for instance, lacked combat support services, such as dedicated logistics and maintenance units, forcing it improvise those capabilities for much of the war.¹³⁰¹ It was also woefully under-equipped. David Ben Gurion—Israel's first

¹²⁹⁶ Allon, *The Making of Israel's Army*, 43.

¹²⁹⁷ Shapira, *Israel: A History*, 158

¹²⁹⁸ Morris, *1948*, 81.

¹²⁹⁹ *Ibid.*, 82.

¹³⁰⁰ *Ibid.*

¹³⁰¹ Allon, *The Making of Israel's Army*, 43.

prime minister—recalled in his memoirs that only about a third of the 45,000 members of the Haganah could be supplied with arms at the start of the civil war.¹³⁰² And not a single Haganah commander in late 1947 had experience leading units above the company-level in combat.¹³⁰³

Ben Gurion recognized these weaknesses and took steps in the lead-up to the civil war to address them.¹³⁰⁴ In the aftermath of WWII, he worked with allies and donors in Europe and the United States to raise funds and arms for the Haganah.¹³⁰⁵ In 1947, when he became head of the defense portfolio for the Jewish Agency, he and his military advisors started developing contingency plans for a defense of the Yishuv from an invasion by neighboring Arab states.¹³⁰⁶

To defend against an invasion, Haganah chief of operations Yigael Yadin ordered his forces to organize their battalions into brigade-level units. This order led to the formation of six Haganah brigades between November 1947 and May 1948: the *Alexandroni*, *Carmeli*, *Etzioni*, *Givati*, *Golani*, and *Kiryati* brigades. Meanwhile, the Palmach, which grew to 10 battalions, organized itself into three brigades: *Yiftach*, *Harel*, and *Ha'Negev* brigades.¹³⁰⁷ And to build, sustain, and reinforce an enlarged

¹³⁰² David Ben Gurion, *Memoirs* (Cleveland: World Publishing Company, 1970), 86.

¹³⁰³ Rothenberg, *The Anatomy of the Israeli Army*, 46.

¹³⁰⁴ Neil Silberman, *A Prophet from Amongst You: The Life of Yigael Yadin* (Boston: Addison-Wesley, 1993), 87.

¹³⁰⁵ Van Creveld, *The Sword and the Olive*, 63.

¹³⁰⁶ Rabin, *The Rabin Memoirs*, 19.

¹³⁰⁷ Rothenberg, *The Anatomy of the Israeli Army*, 45.

military, Ben Gurion had Israeli youth—including women—between the ages of 17 and 25 register for national service, setting the stage for national conscription.¹³⁰⁸

As the civil war loomed in late 1947, Ben Gurion placed the Haganah on full-time orders, transitioning them into a semi-active duty force.¹³⁰⁹ And over the next five months, those forces gained combat experience fighting and ultimately defeating Palestinian paramilitary groups.¹³¹⁰ Thus, by the time the conventional Arab armies attacked in May 1948, many Haganah members were battle-tested and were starting to resemble regulars.

On 14 May, as the British mandate came to an end, the Yishuv declared independence, renaming itself Israel. In response, the Arab League launched an invasion of Israel with a loosely organized task force of about 23,500 soldiers from Egypt, Transjordan, Iraq, Syria, and Lebanon.¹³¹¹ Abdul Rahman Azzam Pasha—the Secretary-General of the Arab League at the time—warned the invasion would be “a great war of destruction and slaughter that will be remembered like the massacres carried out by the Mongols and the Crusaders.”¹³¹²

The Arab League planned for each army to advance on separate axes, dividing Palestine into several areas of responsibility. The Syrians and Lebanese

¹³⁰⁸ Bregman, *Israel's Wars*, 15.

¹³⁰⁹ Ariel Sharon, *Warrior: An Autobiography* (New York: Simon & Schuster, second edition, 2002), 40.

¹³¹⁰ *Ibid.*, 44.

¹³¹¹ Allon, *The Making of Israel's Army*, 15; Bregman, *Israel's Wars*, 24.

¹³¹² Ronen Bergman, *Rise and Kill First: The Secret History of Israel's Targeted Assassinations* (New York: Random House, 2018), 25.

were responsible for northern Palestine and the Egyptians were responsible for the south.¹³¹³ Once Israeli forces engaged those armies, the Jordanians and Iraqis were supposed to launch an assault into Israel's vulnerable center.¹³¹⁴

However, because the Arabs lacked a unified command and failed to coordinate operations, the IDF was able to defeat the northern and southern invasions in detail.¹³¹⁵ But the Israelis did not enjoy the same level of success against the Jordanians. The Jordanian force, known as the Arab Legion, entered Palestine on 15 May, taking East Jerusalem, including the Jewish Quarter.¹³¹⁶ Fortunately, for the Israelis, the Legion was unable to press into central Israel, as initially planned because the Jordanian King wanted to minimize his losses.¹³¹⁷

During the summer of 1948, multiple UN-back truces went into effect, buying the IDF time to reorganize and continue its transition from a people's militia to a more conventional-style army.¹³¹⁸ In June, around 4,000 Jews from abroad joined the ranks of the IDF, enabling it to replace losses and grow. And among these foreigners were combat veterans of WWII, some of whom were experienced pilots who helped the Israelis establish the Israeli Air Force (IAF).¹³¹⁹ Meanwhile, to unify the Israeli

¹³¹³ Sachar, *A History of Israel*, 316.

¹³¹⁴ Ibid.

¹³¹⁵ Ibid.

¹³¹⁶ Morris, *1948*, 210; Rabin, *The Rabin Memoirs*, 32.

¹³¹⁷ Morris, *1948*, 188-89; Pollack, *Arabs at War*, 272.

¹³¹⁸ Allon, *The Making of Israel's Army*, 46.

¹³¹⁹ Morris, *1948*, 85.

military, Ben Gurion forced independent militias to disband and integrate into the IDF.¹³²⁰ The IDF also integrated the Palmach brigades into its command structure and established two new brigades including its first armored brigade (the 8th) using newly acquired tanks and half-tracks.¹³²¹

By the end of the war, the IDF had grown to 12 infantry and two armored brigades that reported to one of four frontal commands: northern, eastern, central, and southern.¹³²² With these reinforcements, the IDF expelled the Egyptians and Syrians by early 1949. However, efforts to dislodge the Arab Legion near Jerusalem failed.¹³²³

In the end, the War of Independence was Israel's bloodiest war, costing it around 6,000 dead—about 1 percent of the population—and thousands more wounded.¹³²⁴ Yet the Israelis achieved their primary objective of ensuring the independence of the Israeli state and securing most of the land allotted to it under the UN's Partition Plan. What is more, they realized that goal with an army of citizen-soldiers—the vast majority of whom started the war as part-time soldiers.

Israel was able to succeed with these part-time soldiers for several reasons. First, their adversaries were poorly led, lacked coordination, and conducted predictable operations. The lone exception was Transjordan's Arab Legion. Yet the

¹³²⁰ Ben Gurion, *Memoirs*, 90-91.

¹³²¹ Rothenberg, *The Anatomy of the Israeli Army*, 54; Schiff, *A History of the Israeli Army*, 30.

¹³²² Ibid.; Allon, *The Making of Israel's Army*, 49-50.

¹³²³ Pollack, *Arabs at War*, 280-82.

¹³²⁴ Van Creveld, *Moshe Dayan*, 69.

legion was too small to withstand heavy attrition and, therefore, unable to drive deeper into Israel, allowing the Israelis to concentrate on defeating the less capable Syrians, Egyptians, and Iraqis. Second, the IDF had high-quality officers and NCOs who had gained extensive combat experience during the civil war phase of the 1948 War and in the previous two decades of fighting in Palestine. As Yitzhak Rabin—the Palmach veteran and future Israeli Prime Minister—noted in his memoir, by the end of the 1948 War he had “been under arms for six years...”¹³²⁵ These experienced leaders helped preserve and improve the IDF’s fighting quality, even as new, untested soldiers entered its ranks. Third, IDF operations in 1948 were relatively simple in comparison to the more expansive mechanized operations it would become known for in later years. As historian Gunther Rothenberg explained, “the War of Independence remained mainly an infantry war, fought by small units.”¹³²⁶ And finally, the more experienced men of the Palmach commanded most of the larger and complex operations (about 20 percent of those killed in action were from the Palmach, even though it was a fraction of the size of the overall Haganah/IDF).¹³²⁷ The IDF would build upon these experiences and lessons during the next two decades to create a highly professional citizen’s army.

¹³²⁵ Rabin, *The Rabin Memoirs*, 44.

¹³²⁶ Rothenberg, *The Anatomy of the Israeli Army*, 65.

¹³²⁷ Van Creveld, *Moshe Dayan*, 69.

Section 3: Building the Citizens Army

Following the War of Independence, Israel continued to rely on citizen-soldiers—conscripts and reservists—for national defense. Overseeing the development of this citizen's army was Prime Minister David Ben Gurion, who served as Minister of Defense as well, and the first two IDF Chiefs of the General Staff (CGS), Yaakov Dori (1948-49) and Yigael Yadin (1949-52).¹³²⁸

Ben Gurion and his military chiefs understood that Israel faced difficult strategic circumstances that necessitated the efficient use of Israel's population for national defense. Although it had secured independence, Israel was still surrounded by larger, hostile Arab states that were determined to destroy it.¹³²⁹ And if they attacked, Israel was vulnerable to being rapidly overrun due to its small size and narrow geographic configuration. The threat was especially grave if its neighbors conducted a coordinated invasion that forced the IDF to divide its small army along multiple fronts.¹³³⁰ Making matters worse, Israel had no military ally that it could call upon for support in the event of such an invasion, as the special relationship with the United States would not develop until the late 1960s. And it could not form a large standing army to deter or contain such an attack because of its small population and weak economy.¹³³¹

¹³²⁸ Gal, *Portrait of an Israeli Soldier*, 11.

¹³²⁹ Allon, *The Making of Israel's Army*, 59.

¹³³⁰ Ibid.

¹³³¹ Gal, *Portrait of an Israeli Soldier*, 12.

With these challenges and constraints in mind, Ben Gurion sought to develop an army that had the “best and most advanced training and proper military equipment, so that the superior quality of the armed forces will compensate for its inferior quantity...”¹³³² But to ensure that this army did not cause undue stress on the Israeli economy, Ben Gurion and his military advisors built the army around part-time reservists, who were cheaper to maintain than full-time professionals.¹³³³

The foundation of this new army was the Defense Service Law of 1949 that the Knesset—the Israeli Parliament—approved in September 1949.¹³³⁴ The law, which Ben Gurion, Yadin, and Dori wrote, mandated universal military service for nearly all Israeli citizens.¹³³⁵ The service law, however, faced some resistance from former Palmach officers who wanted to develop a small professional army backed by a popular militia—a proposal that Ben Gurion rejected.¹³³⁶ Instead, he wanted to ensure that Israel—through mass conscription and the maintenance of a large trained reserve—could maximize its military potential to defend against a coordinated invasion by its neighbors.¹³³⁷ He also wanted universal military service to help

¹³³² Allon, *The Making of Israel's Army*, 56, 60; Yitzhak Greenburg, “The Swiss Armed Forces as a Model for the IDF Reserve System--Indeed?” *Israel Studies*, Vol. 18 (Fall 2013), No. 3., 100-01.

¹³³³ *Ibid.*; Allon, *The Making of Israel's Army*, 56, 60.

¹³³⁴ Rothenberg, *The Anatomy of the Israeli Army*, 71.

¹³³⁵ *Ibid.*

¹³³⁶ *Ibid.*, 71-73.

¹³³⁷ *Ibid.*

Israel—a diverse nation of immigrants from different countries—build national cohesion by acting as “an educational force for national unity.”¹³³⁸

The service law divided the IDF into three components: the standing conscript army (*Sherut Hova*), the reserve (*Sherut Miluim*), and a small cadre of career officers and technicians (*Sherut Keva*).¹³³⁹ The conscript army was composed of all Israeli youth—including young women—drafted into the military at age eighteen. Men mainly served in the combat arms, while women almost exclusively served in combat support roles, such as logistics, medical services, and intelligence.¹³⁴⁰ Arabs living in Israel, Orthodox women, married women, mothers, full-time students in rabbinical studies, and those with mental or physical disabilities were exempt.¹³⁴¹ Christian and Bedouin citizens, meanwhile, could volunteer for service; many did.¹³⁴² The professional cadre oversaw training, unit administration, and technical fields.¹³⁴³ The reserve, composed of discharged conscripts, was the largest and the most important element that provided the IDF with the bulk of its combat power.

The reserve was the most important component of the IDF because the standing army was too small to defeat an invasion on its own. Its role was simply to hold the line against an invading force for upwards of 72 hours, buying time for the

¹³³⁸ Bregman, *Israel's Wars*, 42.

¹³³⁹ Allon, *The Making of Israel's Army*, 56-57.

¹³⁴⁰ *Ibid.*, 57.

¹³⁴¹ Bregman, *Israel's Wars*, 45; Rothenberg, *The Anatomy of the Israeli Army*, 72.

¹³⁴² Bregman, *Israel's Wars*, 45.

¹³⁴³ Rothenberg, *The Anatomy of the Israeli Army*, 72.

reserves to mobilize and launch a counterattack.¹³⁴⁴ The reserves, therefore, needed to be highly trained and ready to fight with little to no notice.

To ensure its reserves could perform this vital function, the IDF required all reservists to undergo intensive basic and advanced initial entry training followed by at least 36-months of active service (48-months for officers).¹³⁴⁵ The famed U.S. Army military historian General SLA Marshall in the mid-1950s observed Israeli training. And he claimed that the training was “threefold tougher than in the U.S. Army” due to its extended length and annual field exercises.¹³⁴⁶ Reservists, moreover, continued to train once discharged from active service, as will be described in more detail below.

Perhaps the most important element of the early IDF’s training programs was that it trained all its NCOs—be they reservists or conscripts—to think and act independently. The reason for this was that the IDF lacked a technological edge over its adversaries in the 1940s and 50s. To compensate, it sought to develop a tactically adept and agile infantry force that could outmaneuver the more cumbersome Soviet-style armies of its adversaries. One way it did this was by ensuring that its infantry squads were highly trained and were capable of independent maneuver by breaking into two four to five-man teams.¹³⁴⁷ Conducting such maneuvers required a trained

¹³⁴⁴ Emanuel Sakal, *Soldier in the Sinai: A General’s Account of the Yom Kippur War* (Lexington: University of Kentucky Press, 2014), 68.

¹³⁴⁵ IDF, *Military Service (7th Edition)*, 44, http://archive.moia.gov.il/Publications/idf_en.pdf (accessed 31 March 2020); IISS, *Military Balance 2018*, 340.

¹³⁴⁶ English and Gudmundsson, *On Infantry*, 169.

¹³⁴⁷ *Ibid.*, 167-68.

squad leader—usually a junior NCO—who had the skills and experience to identify and exploit opportunities as they arose without having to wait for direct guidance from officers at the platoon or company-level. The IDF, therefore, ran demanding squad leadership courses that produced highly effective infantry NCOs, giving its reserve and conscript units a distinct advantage in flexibility over the infantry of its adversaries who did not empower its NCOs.¹³⁴⁸ Yigael Allon later explained in his memoirs why such a program was essential for the IDF:

The most brilliant plan by the most capable general depends for its tactical execution on [squad] leaders. Poor [squad] leaders may ruin the best-laid plan...It follows, then, that the [squad] leader is to be trained as a tactical commander and as an educator of men...¹³⁴⁹

The IDF reserve and active duty officer corps also benefited from this NCO training program, as all IDF combat arms officers previously served as NCOs and likely graduated from the squad leadership course. Unlike in most armies, the IDF has no officer academy or ROTC-like program.¹³⁵⁰ What this meant was that the IDF had experienced junior officers leading its small units (in reserve and active forces), unlike in other armies, such as the U.S. Army, in which most newly commissioned officers have no prior military experience. And all IDF officers served at least 48 months on active duty, meaning they would have extensive full-time experience

¹³⁴⁸ Ibid.

¹³⁴⁹ Ibid., 168.

¹³⁵⁰ Ibid.

before discharging into the reserves.¹³⁵¹ What is more, once in the reserves, officers still had to meet nearly all the same professional standards as conscripts in terms of training and education.¹³⁵²

The IDF organized its reservists into eight fully functional infantry brigades commanded primarily by reserve officers.¹³⁵³ Initially, however, some IDF commanders worried that part-time officers could not handle the demands of command and staff positions at the brigade-level. But they had little choice but to allow them to fill those roles because of a shortage of full-time officers.¹³⁵⁴ That said, the IDF worked hard to ensure that almost all its reserve units were fully staffed and equipped in peacetime, ensuring that they had the means to conduct realistic peacetime maneuvers and to mobilize and deploy quickly in a crisis.¹³⁵⁵ What is more, reserve units experienced minimal personnel turnover, thereby boosting unit cohesion.¹³⁵⁶ And because all reservists had served previously on active duty, they did not have to devote time during training to teach basic soldiers skills, unlike the volunteer reserve systems of the United States and Britain.

Reserve training was relatively demanding compared to other armies in which reservists did not train at all or for only a few hours a week (see chapter 1). Until age

¹³⁵¹ IDF, *Military Service (7th Edition)*, 44; IISS, *Military Balance 2018*, 340.

¹³⁵² Staff Writers, “Career Planning for Reserve Officers,” *The Jerusalem Post*, 29 July 1953, 2.

¹³⁵³ Adds two armor brigades by 1956: Rothenberg, *The Anatomy of the Israeli Army*, 82, 85.

¹³⁵⁴ *Ibid.*, 82.

¹³⁵⁵ Gal, *Portrait of an Israeli Soldier*, 12.

¹³⁵⁶ Van Creveld, *The Sword and the Olive*, 115.

48, every Israeli reservist trained for 30 to 45 days a year (14 to 21 days for older reservists in support units).¹³⁵⁷ Each training day lasted around 12 hours, compared to the reserve components of other armies that often train around eight hours a day or less.¹³⁵⁸ And reserve officers regularly trained beyond their annual requirements to ensure the successes of their respective units.¹³⁵⁹ In fact, one reserve officer at the time claimed in an interview with an Israeli newspaper that he devoted as many as 80 days a year to the military.¹³⁶⁰ Ultimately, CGS Yadin established this rigorous training approach to develop highly professional reservists. They would be, in his words, “regular soldiers who happened to be on leave eleven months of the year.”¹³⁶¹

Reserve training took place all at once or in two separate sessions; the goal was for the first half to focus on advanced individual training and the second half on unit-level maneuvers, although it is unclear how often that worked out.¹³⁶² Concentrating reserve training into one or two blocks likely helped build readiness. That is, the ability of a unit to perform its assigned mission to the standard expected of it by its leadership and doctrine. As discussed in the case study of the ARNG, reserve units that break training into multiple periods over a year often waste precious

¹³⁵⁷ Louis Williams, *Israel Defense Forces: A People's Army* (Tel Aviv: Israeli Ministry of Defense, 1989), 12; Kenneth Love, “Israel’s Forces Outweigh Arabs,” *The New York Times*, 30 August 1955, 14.

¹³⁵⁸ Staff Writers, “Men 20 to 49 Being Called,” *The Jerusalem Post*, 30 June 1950, 3.

¹³⁵⁹ Staff Writers, “High Praise for Reserves in North,” *The Jerusalem Post*, 17 September 1952, 3.

¹³⁶⁰ Sraya Shapiro, “Part-Time Civilians,” *The Jerusalem Post*, 15 March 1954, 4.

¹³⁶¹ Allon, *The Making of Israel's Army*, 56-57.

¹³⁶² Staff Writers, “Reserve Duty Year to Start April 1,” *The Jerusalem Post*, 05 July 1951, 3.

time with routine tasks such as taking attendance, handing out equipment, and getting soldiers back into a military mindset. What is more, by concentrating training into one or two sessions, the IDF could conduct more field maneuvers that would be difficult to achieve if they had broken training into weekends, like the ARNG or weekday evenings like the British Army Reserve.¹³⁶³

Reserve officers and NCOs, however, had little control over planning and assessing training, unlike the U.S. Army. In the IDF, planning and evaluating training was the responsibility of full-time personnel at combined arms centers.¹³⁶⁴ This policy applied to both individual and collective events. Full-time staff, for instance, managed tank gunnery and maneuver training.¹³⁶⁵ This approach likely improved unit readiness in three ways. First, it prevented undertrained reserve officers and NCOs from providing incomplete or unsatisfactory training to their units. Second, it ensured that all units trained at or near the same standard. And finally, the teaching staff of the combined arms centers relieved reserve officers and NCOs of the burden of preparing training events, enabling them to focus their limited time on leading their units in the field.

To ensure reserve units could quickly mobilize in the event of a crisis, the IDF organized its reserves geographically. That is, reserve units drew its personnel and

¹³⁶³ See previous chapters for ARNG; for British Army practices, see The British Army, “Your Time: How Much will it Take?” <https://apply.army.mod.uk/what-we-offer/reserve-soldier/reserve-soldier-time> (accessed 01 January 2019).

¹³⁶⁴ Ash Sherwood, *The Training Aspect of Reserve Battalion Combat Readiness* (MA Thesis, U.S. Army Command and General Staff College, 1983), 33.

¹³⁶⁵ Ibid.; CIA, “National Intelligence Estimate: Israel,” 29 June 1972, 6, https://www.cia.gov/library/readingroom/docs/DOC_0001518685.pdf (accessed 01 January 2020).

supplies from nearby towns and cities, reducing the time it would take for a soldier to get from his/her home to their assembly locations.¹³⁶⁶ It would also make reservists' lives more comfortable as they would not waste time during their assemblies commuting to and from their training sites.¹³⁶⁷ Once mobilized, however, reserve units could be moved among commands—north, central, or southern—to meet operational requirements.¹³⁶⁸

Thus, by the mid-1950s, the IDF had enacted five key practices and policies that set a foundation for its future battlefield successes with reserve forces:

1. All reservists had three to four years of active training and experience gained as conscripts;
2. Reserve training was demanding, lengthy, and reduced wasted time by concentrating training into one or two periods and by decreasing the distance required for a reservist to travel from his/her home to their local armories. Plus, reserve training was managed by experienced, full-time personnel who had access to unit supplies in nearby supply depots;
3. Reserve officers had to maintain the same education and training standards as the conscript force; and they, like their full-time counterparts, had served previously as enlisted soldiers, where they may have gained leadership

¹³⁶⁶ Greenburg, "The Swiss Armed Forces as a Model for the IDF Reserve System—Indeed?," 104, 106.

¹³⁶⁷ Ibid., 104-05.

¹³⁶⁸ Ibid.

experience as NCOs and, in some cases, attended the infantry squad leadership course;

4. Reserve units were generally fully manned and equipped in peacetime;
5. And reservists spent many years with the same unit, boosting unit cohesion.

These policies and practices helped ensure that the IDF reserve had a high degree of experience and time to train. And as the next chapter shows, when the IDF later abandoned or curtailed these practices, the quality and performance of the IDF reserve declined precipitously.

Sustaining this reserve army and conscript force was expensive, requiring Israel to devote a considerable percentage of its national wealth for defense, as shown in Table 4.4. In fact, defense spending was around 10 percent of GDP in 1950 and rose to nearly 15 percent in 1956.¹³⁶⁹ Those percentages would rise even further in the following decades.

Israel was able to convince its population to accept such high defense spending and the large burden of universal military service because of a legitimate fear that failing to do so risked national annihilation. For those long-time residents of the Yishuv, the memories of Arab attempts to destroy their communities in 1936 and 1948 were still fresh. And those new immigrants from Europe had experienced—or narrowly escaped—the horrors of the Holocaust. Arab rhetoric calling for the

¹³⁶⁹ Central Bureau of Statistics, “Defence Expenditure in Israel, 1950-2014,” August 2016, p.11, https://www.cbs.gov.il/he/publications/DocLib/2016/1651/e_print.pdf (accessed 01 January 2019).

destruction of Israel also borrowed some of the anti-Semitic propaganda of the Nazis, amplifying fears of a potential Second Holocaust.¹³⁷⁰

Table 4.4: Israel Defense Expenditures (2017 USD) ¹³⁷¹			
Year	Estimated Defense Spending as Percent of GDP	Estimated Expenditure (Thousands)	U.S. Aid (Millions)
1950	~9	1.17	~35.1
1953	~6	2.20	73.6
1956	~14	10.09	50.8
1959	~10	8.76	53.3

Given these fears and a larger sense of collectivism that pervaded Israeli society at the time, soldiers serving in the IDF were also willing to fight with little pay and benefits (about \$600 a year).¹³⁷² Consequently, many troops had to rely on public welfare to cover their living expenses.¹³⁷³ The state also placed special taxes on the employers of reservists to ensure that a reserve soldier could receive at least 65 to 80 percent of their civilian pay while on duty.¹³⁷⁴ Keeping salaries low and using special taxes to pay for reservist pay enabled the IDF to devote more of its budget towards operations, training, and equipment.¹³⁷⁵

¹³⁷⁰ Moshe Brilliant, “Tel Aviv is Tense,” *The New York Times*, 29 October 1956, 3.

¹³⁷¹ Israel Central Bureau of Statistics, “Defence Expenditure in Israel, 1950-2017,” July 2017, 29, https://www.cbs.gov.il/he/publications/DocLib/2019/1758/e_print.pdf (accessed 02 April 2020); World Bank, “Military expenditure (% of GDP) – Israel,” <https://data.worldbank.org/indicator/MS.MIL.XPND.GD.ZS?end=2018&locations=IL&start=1960&view=chart> (accessed 03 January 2020); Jewish Virtual Library, “U.S. Foreign Aid to Israel,” <https://www.jewishvirtuallibrary.org/total-u-s-foreign-aid-to-israel-1949-present> (accessed 23 February 2020).

¹³⁷² Rothenberg, *The Anatomy of the Israeli Army*, 76, 80.

¹³⁷³ *Ibid.*, 81.

¹³⁷⁴ Love, “Israel’s Forces Outweigh Arabs,” 14.

¹³⁷⁵ Unfortunately, there is no publicly available data to see how the IDF broke down its defense spending in the 1950s. I assume, however, that the IDF devoted a great percentage of its resources towards operations, training, and equipment considering that the CGSs of the period all focused on those aspects of the military.

Although the IDF had a high will to fight and a well-trained reserve, it still faced numerous challenges in its first decade of existence. One of which was the fact that the army lacked a standard doctrine because its senior and mid-level officers had come from such varied military backgrounds. Some had trained and fought as light infantry with the Palmach or Haganah; others had fought in the conventional armed forces of European armies in WWII.¹³⁷⁶

To standardize the Israeli way of war, Yadin established schools and training programs that taught IDF personnel a mobile, combined arms approach to warfare that fused British, Palmach, and other tactical concepts.¹³⁷⁷ The resulting doctrine was highly flexible. It, for instance, did not produce or encourage the use of battle drills and detailed standard operating procedures for unit operations. Prominent IDF tacticians like Moshe Dayan preferred that soldiers and officers improvised solutions to tactical problems, eschewing by-the-book solutions. This view was highly influenced by the culture promoted by Palmach officers in the 1930s and 40s.¹³⁷⁸ Ultimately, what Dayan and Yadin wanted was an army that could rapidly mobilize, outfight, and outmaneuver larger Arab adversaries to end wars quickly on favorable terms.¹³⁷⁹ The army, moreover, needed to avoid battles of attrition that Israel could not afford because of the small size of its population and industry.¹³⁸⁰

¹³⁷⁶ Rothenberg, *The Anatomy of the Israeli Army*, 80.

¹³⁷⁷ Rabin, *The Rabin Memoirs*, 48; Rothenberg, *The Anatomy of the Israeli Army*, 80.

¹³⁷⁸ Ibid.

¹³⁷⁹ Van Creveld, *The Sword and the Olive*, 106-07.

¹³⁸⁰ Ibid.

Israel, however, confronted a readiness crisis in the early 1950s that limited its ability to put its doctrine into practice. The IDF lacked enough armored vehicles and trucks to conduct mobile operations.¹³⁸¹ And many of its best and experienced officers were retiring or promoted to the senior ranks, thereby reducing the number of combat veterans in the junior and mid ranks.¹³⁸²

Additionally, a spike in immigration because the 1950 Law of Return flooded the IDF with inexperienced soldiers between 1950 and 1955.¹³⁸³ Integrating these new immigrants—who were subject to conscription and reserve service—forced the IDF to devote much of its training time and resources towards improving immigrant education.¹³⁸⁴ The immigration boom also caused command and control issues, as the IDF simply lacked enough officers and NCOs to train and control its growing army.¹³⁸⁵

The IDF's poor state of readiness in the early 1950s was evident in its struggles to respond to raids by Arab paramilitary forces from bases in neighboring Jordan and Egypt.¹³⁸⁶ The IDF concluded in 1953 that only about 18 percent of its responses to these cross-border attacks were effective.¹³⁸⁷ In a number of cases,

¹³⁸¹ Rothenberg, *The Anatomy of the Israeli Army*, 87.

¹³⁸² Gal, *Portrait of an Israeli Soldier*, 13.

¹³⁸³ Bregman, *Israel's Wars*, 39; Rothenberg, *The Anatomy of the Israeli Army*, 84.

¹³⁸⁴ Allon, *The Making of Israel's Army*, 57.

¹³⁸⁵ Rothenberg, *The Anatomy of the Israeli Army*, 79.

¹³⁸⁶ Schiff, *A History of the Israeli Army*, 71.

¹³⁸⁷ Rothenberg, *The Anatomy of the Israeli Army*, 89.

Israeli performance was degraded by poor morale and disciplinary problems.¹³⁸⁸

Dayan later attributed these unsatisfactory incidents to the loss of training time caused by the distraction of dealing with difficulties arising from immigration.¹³⁸⁹

Dayan, who became CGS in December 1953, focused much of his time addressing the readiness issues that were undermining the IDF's ability counter cross border raiders.¹³⁹⁰ However, budget constraints due to a downturn in the Israeli economy prevented him from making serious changes to IDF training practices.¹³⁹¹ That said, he was able to reduce IDF participation in immigration programs, leaving those tasks to civilian agencies.¹³⁹² And he worked to establish a more aggressive officer corps by mandating that all senior combat arms officers attend a grueling parachute training course.¹³⁹³ He also reduced the size of combat support elements in the military, opting to rely on civilian contractors for some tasks such as laundry services so as to free personnel for the combat arms.¹³⁹⁴

Later, in 1955 and 1956, Dayan secured more funding for the army—about a 10 percent increase—in response to Egypt's acquisition of new weapons, including

¹³⁸⁸ Ibid., 88-90.

¹³⁸⁹ Ibid., 88.

¹³⁹⁰ Moshe Dayan, *Moshe Dayan: Story of My Life: An Autobiography* (New York: William Morrow and Company, 1976), 172-73; Rothenberg, *The Anatomy of the Israeli Army*, 91.

¹³⁹¹ Dayan, *The Story of My Life*, 172-73.

¹³⁹² Rothenberg, *The Anatomy of the Israeli Army*, 91.

¹³⁹³ Ibid., 93.

¹³⁹⁴ Dayan, *The Story of My Life*, 172-73.

over 100 tanks and military aircraft, from the Soviet Union.¹³⁹⁵ With more funding, the IDF was able to begin mechanizing its army, acquiring 100 AMX-13 light tanks, 150 U.S. half-tracks, and 60 French 105mm howitzers.¹³⁹⁶ With that equipment, the IDF stood up its first two mechanized reserve brigades (the 27th and 37th).¹³⁹⁷ Additionally, the IDF began mounting 105mm howitzers on AMX-13 tank chassis, giving it its first self-propelled howitzer.¹³⁹⁸ These equipment upgrades helped the IDF develop a more mobile force that, in turn, was better prepared to execute the combined arms doctrine IDF officers had developed in the early 1950s.

Section 4: The Suez Crisis and the Reserve Stumbles

The IDF faced its first major combat test in 1956 when Israel, alongside Great Britain and France, went to war against Egypt. Four years earlier, Gamal ‘Abd al-Nasser and fellow Egyptian army officers known as the Free Officers overthrew the Egyptian monarchy and nationalized the Suez Canal, a vital strategic waterway for British and French shipping.¹³⁹⁹ In response, the French and British conspired to overthrow Nasser. And to do so, they secured support from Israel, which was looking to strike the Egyptians before they could integrate newly acquired Soviet weapons into their arsenal.¹⁴⁰⁰

¹³⁹⁵ Bregman, *Israel's Wars*, 55.

¹³⁹⁶ Gudmundsson, *On Artillery*, 155; Rothenberg, *The Anatomy of the Israeli Army*, 100-101.

¹³⁹⁷ *Ibid.*, 100.

¹³⁹⁸ Gudmundsson, *On Artillery*, 155.

¹³⁹⁹ Pollack, *Arabs at War*, 29; Schiff, *A History of the Israeli Army*, 88.

¹⁴⁰⁰ *Ibid.*, 88, 90.

After agreeing to participate in the Anglo-French operation, Ben Gurion authorized Moshe Dayan to devise Operation Kadesh (the biblical name for the Sinai). The operation had three objectives: 1) destroy paramilitary bases in the Sinai, 2) destroy the ability of Egyptian armed forces to launch offensive operations from the Sinai into Israel, and 3) reopen the Strait of Tiran to Israeli shipping.¹⁴⁰¹ To secure these objectives, Dayan planned to utilize ten brigades—seven of which were from the reserves.¹⁴⁰²

Once committed, the brigades were to advance into the Sinai along three avenues, bypassing main defenses and seizing key terrain near the Suez to cause the Egyptian units within the Sinai to collapse.¹⁴⁰³ The 77th *Ugdah*—a division-level task force—composed of three reserve brigades (1st Infantry, 27th Mechanized, and 11th Infantry) was responsible for advancing along the first avenue that extended from Gaza to el-Qantara.¹⁴⁰⁴ Meanwhile, the 9th Brigade (reserve) was responsible for seizing Sharm el-Sheikh along the southern axis to destroy Egyptian gun emplacements near the Straits of Tiran, where they were harassing Israeli shipping.¹⁴⁰⁵ The main effort, however, was along the third avenue that passed through Abu Ageila to Ismailia on the eastern banks of the Suez.

¹⁴⁰¹ Rothenberg, *Anatomy of the Israel Army*, 105.

¹⁴⁰² Edward Luttwak and Daniel Horowitz, *The Israeli Army* (New York: Harper Collins, 1975), 157; Pollack, *Arabs at War*, 31.

¹⁴⁰³ Moshe Dayan, *Diary of the Sinai Campaign* (New York: Harper & Row, 1966), 61.

¹⁴⁰⁴ Pollack, *Arabs at War*, 32-33.

¹⁴⁰⁵ Luttwak and Horowitz, *The Israeli Army*, 156-57; Schiff, *A History of the Israeli Army*, 95.

The campaign would start on this avenue with the 202nd Parachute Brigade dropping a battalion deep into the Sinai to seize and hold the Mitla Gap, thereby blocking a key line of communication linking Egypt's Sinai-based units with the mainland.¹⁴⁰⁶ The 38th Ugdah (4th Infantry, 10th Infantry, and 37th Mechanized Reserve brigades), the 7th Armor Brigade (a conscript unit), and two battalions from the 202nd would then attack westward along the central avenue to link up with the lead element at Mitla.¹⁴⁰⁷

Opposing the Israelis were around 42,000 Egyptian soldiers and Palestinian paramilitary units.¹⁴⁰⁸ In the northeast Sinai, the Egyptians had the 3rd Infantry Division, the 8th Infantry Division, and several battalions of Palestinian paramilitary formations and Egyptian national guardsmen deployed in and near Gaza. Further south, the Egyptians stationed a reinforced infantry battalion near Sharm el-Sheik.¹⁴⁰⁹

The Egyptians had the advantage of operating from prepared battle positions, but the IDF outnumbered them (around 45,000 versus 30,000). And the Israelis had more armored vehicles, as the Egyptians kept most of their tanks in reserve along the Suez to counter the Anglo-French invasion force.¹⁴¹⁰ The Egyptians also had the

¹⁴⁰⁶ Dayan, *Diary of the Sinai Campaign*, 36.

¹⁴⁰⁷ George Gawrych, *Key to the Sinai: The Battles for Abu Ageila in the 1956 and 1967 Arab-Israeli Wars* (Ft. Leavenworth: Combat Studies Institute, 1990), 22, 24.

¹⁴⁰⁸ CIA, "Middle East Situation," 07 March 1956, 2, <https://www.cia.gov/readingroom/docs/CIA-RDP79R00890A000700030020-5.pdf> (accessed 08 April 2021).

¹⁴⁰⁹ Trevor Dupuy, *Elusive Victory: The Arab-Israeli Wars, 1947-1974* (New York: Harper & Row, 1978), 144, 146.

¹⁴¹⁰ Pollack, *Arabs at War*, 31-33.

added disadvantage of fighting the Israelis while facing an attack in their rear by the French and British. What is more, the Israelis had the advantage of surprise, as the Egyptians were not expecting a significant attack in the Sinai.¹⁴¹¹

The war began on 29 October 1956, when Israeli paratroopers successfully seized the Mitla Pass. Three days later, the 27th Infantry and 1st Infantry (Golani) Brigades took el-Arish, opening the northern road into the Suez. Meanwhile, to the south, the 77th Ugdah advanced on Abu Ageilia, where they faced fierce resistance, stalling its attack until the Egyptian high command made a hasty decision to withdraw all forces from the Sinai.¹⁴¹² When this happened, the Egyptians had to abandon their prepared battle positions and were cut to pieces by the more agile Israeli forces.¹⁴¹³ Further south, the 9th Infantry Brigade began its advance on Sharm el-Sheikh on 02 November, securing its objectives and removing the Egyptian threat to Israeli shipping three days later.¹⁴¹⁴ By 05 November, the IDF was in control of the entire Sinai, having achieved all its tactical objectives while suffering 231 killed in action; the Egyptians lost around 3,000.¹⁴¹⁵

During the campaign, the IDF benefited from the poor tactical performance of the Egyptian army. Officers often abandoned their men in battle, leaving them

¹⁴¹¹ Ibid., 30-31.

¹⁴¹² Schiff, *A History of the Israeli Army*, 93.

¹⁴¹³ Ibid.

¹⁴¹⁴ Dayan, *The Story of My Life*, 255-56; Van Creveld, *The Sword and the Olive*, 147.

¹⁴¹⁵ Schiff, *A History of the Israeli Army*, 93, 96-97; Staff Writers, "The Sinai Campaign," *Israel Ministry of Foreign Affairs*, <https://mfa.gov.il/mfa/aboutisrael/history/pages/the%20sinai%20campaign%20-%201956.aspx> (19 December 2019).

without commanders who could coordinate defensive actions and call-in additional support from higher headquarters.¹⁴¹⁶ And even those units that had good officers had to deal with the fact that commanders stationed back in Cairo or the Canal Zone had to approve major tactical decisions, limiting the Egyptian's ability to match the high tempo of Israeli operations.¹⁴¹⁷ The Egyptian high command, moreover, made a fatal mistake of ordering a hasty withdrawal of Egyptian forces in the Sinai while those forces were still in contact with the IDF.¹⁴¹⁸

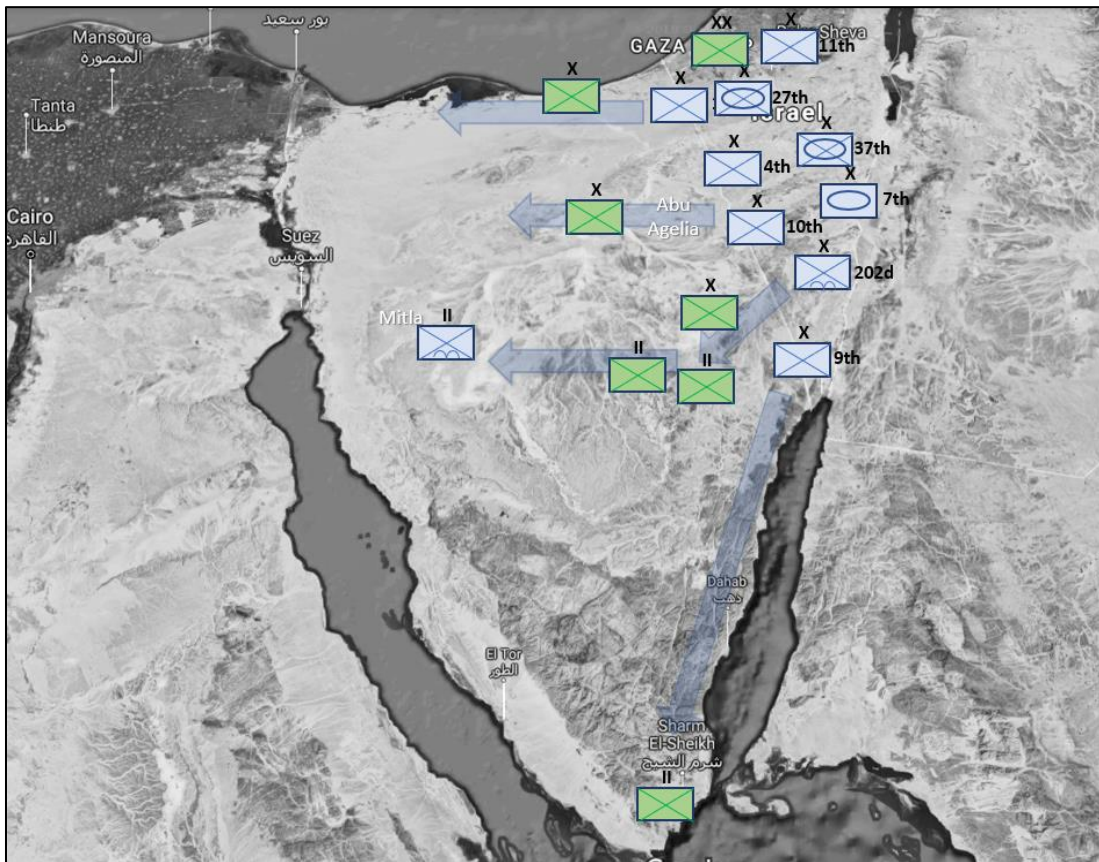


Figure 4.1: The Israeli Conquest of the Sinai, October-November 1956

¹⁴¹⁶ Pollack, *Arabs at War*, 41.

¹⁴¹⁷ Schiff, *A History of the Israeli Army*, 93.

¹⁴¹⁸ Ibid.

Although the Israelis had achieved their primary objectives, the IDF reserve's performance was uneven. The mobilization process did not flow as smoothly as intended. Initially, the IDF had planned to mobilize the reserve a week before the start of the campaign. But Dayan worried such a move would alert the Egyptians to the Israelis intentions.¹⁴¹⁹ Thus, he delayed mobilization to 24 October—just five days before the start of the operation.¹⁴²⁰ Additionally, many reserve units quickly discovered that they lacked updated contact information for their soldiers, leading to instances in which only around 50 percent of some units' personnel received a mobilization alert.¹⁴²¹ To resolve this problem, the IDF broadcast alerts over the radio starting 28 October—a decision that succeeded in getting nearly all reservists to their units.¹⁴²²

But precious pre-deployment training time was reduced by two days for many of these late-arriving soldiers and officers. Compressing the mobilization period also meant that some commanders and staff had “insufficient time to study their expected tasks,” as Dayan later concluded.¹⁴²³ What time they did have was spent receiving and processing equipment and personnel and moving to assembly areas.¹⁴²⁴ Dayan

¹⁴¹⁹ Dayan, *Diary of the Sinai Campaign*, 38.

¹⁴²⁰ Van Creveld, *The Sword and the Olive*, 142.

¹⁴²¹ Dayan, *Diary of the Sinai Campaign*, 69-70, 86.

¹⁴²² Ibid., 69; Staff Writers, “Tel Aviv is Tense,” 1.

¹⁴²³ Dayan, *Diary of the Sinai Campaign*, 85-86.

¹⁴²⁴ Luttwak and Horowitz, *The Israeli Army*, 146.

confessed in his diary that the rushed mobilization probably contributed to some of the difficulties reserve units experienced during the Sinai campaign.¹⁴²⁵

The reserve units that suffered the most difficulties were part of the 38th Ugdah—the task force responsible for the central axis. The 38th had the difficult mission of seizing the Umm Qatef ridgeline—a few kilometers east of Abu Ageila—from Egypt's 6th Infantry Brigade.¹⁴²⁶ Dayan wanted to clear Umm Qatef so the 7th Armor Brigade and 202nd Parachute Brigade could move towards the canal.¹⁴²⁷

The 38th Ugdah tasked the 10th and 4th reserve infantry brigades with seizing Umm Qatef. The battle started well for the Israelis when the 4th brigade dislodged a battalion of Egyptian national guardsmen defending Kusseima to the southeast of the ridgeline.¹⁴²⁸ Securing Kusseima opened a southern route into Umm Qatef, allowing the Israelis to attack Egypt's 6th Infantry Brigade from the east and the south. Meanwhile, to the north of Kusseima, the 10th brigade, under the command of Colonel Shmuel Goder, a decorated veteran of the Soviet artillery corps in WWII, advanced eastwards to attack the Egyptians at Umm Qatef.¹⁴²⁹ The 10th, which was composed mostly of older reservists, was supposed to strike at the same time the 4th

¹⁴²⁵ Dayan, *Diary of the Sinai Campaign*, 85-86.

¹⁴²⁶ Gawrych, *Key to the Sinai: The Battles of Abu Ageila*, 14, 24.

¹⁴²⁷ Dayan, *Diary of the Sinai Campaign*, 115.

¹⁴²⁸ Gawrych, *Key to the Sinai: The Battles of Abu Ageila*, 25, 37-40.

¹⁴²⁹ *Ibid.*, 24, 50.

attacked from the south.¹⁴³⁰ But for unknown reasons, the 4th never received that order; and the 10th unwittingly went into battle alone.¹⁴³¹

The Egyptians, positioned on the high ground, had clear observation and fields of fire that they exploited to force the advancing Israelis back with accurate anti-tank and artillery fire.¹⁴³² Dayan, however, was unsatisfied and wanted Guder to mount a second attack that evening. But during the follow up attack, two of Guder's infantry battalions got lost in the dark and were unable to coordinate their attacks once they made contact with the Egyptians.¹⁴³³ Frustrated, Dayan relieved Guder of command, replacing him with Colonel Israel Tal, a veteran of the British Jewish Brigade in WWII who would go on to become a major figure in the IDF in the 1960s.¹⁴³⁴

The failures of the 10th Brigade forced Dayan to send the newly formed 37th Mechanized Brigade (reserve) to reinforce the attack against Umm Qatef on 31 October.¹⁴³⁵ The unit, however, was not at a high state of readiness, as it had yet to conduct any collective training.¹⁴³⁶ That said, its commander, Colonel Shmuel Galinka, was highly enthusiastic about the prospect of getting to command in battle—

¹⁴³⁰ Dupuy, *Elusive Victory*, 165; Yigal Henkin, *The 1956 Suez War and the New World Order in the Middle East: Exodus in Reverse* (Lanham: Lexington Books, 2015), 148.

¹⁴³¹ Dupuy, *Elusive Victory*, 165.

¹⁴³² Ibid.

¹⁴³³ Dayan, *Diary of the Sinai Campaign*, 118.

¹⁴³⁴ Dupuy, *Elusive Victory*, 167.

¹⁴³⁵ Henkin, *The 1956 Suez War and the New World Order in the Middle East*, 152.

¹⁴³⁶ Ibid.

perhaps over enthused as he may have read inaccurate intelligence that stated the Egyptians were collapsing at Umm Qatef.¹⁴³⁷ Thus, he decided to concentrate his forces and conduct a mass frontal assault; but the Egyptians had not broken.¹⁴³⁸ Making matters worse, the 37th attacked at night with their vehicle headlights on, revealing their positions to the Egyptians.¹⁴³⁹ Unsurprisingly, the attack failed; and the 37th suffered 80 casualties while many its officers were killed in action, including Galinka.¹⁴⁴⁰ Following this debacle, the IDF General Headquarters in Tel Aviv decided to abandon plans to seize Umm Qatef.¹⁴⁴¹

In the end, the war was a tactical success for the IDF in general and the reserves in particular. The IDF had proven it could go toe-to-toe with a well-equipped, albeit poorly led, army. And despite some administrative challenges, the reserve demonstrated that it could, in fact, mobilize within 72 hours and go into battle and achieve its assigned missions, apart from the 10th and 37th brigades at Umm Qatef.

That said, the Israelis were unable to secure a total victory. The United States and the Soviet Union—hoping to win favor with the Arab states—pressured the IDF to withdraw from the peninsula and Gaza, which it did by mid-March 1957.¹⁴⁴² Thus,

¹⁴³⁷ Ibid.

¹⁴³⁸ Dupuy, *Elusive Victory*, 167.

¹⁴³⁹ Ibid.

¹⁴⁴⁰ Ibid., 168.

¹⁴⁴¹ Ibid.

¹⁴⁴² Dayan, *The Story of My Life*, 259.

the Egyptians were able to reoccupy the peninsula. But the UN agreed to take control over Sharm el-Sheikh, allowing Israeli shipping to continue through the Straits of Tiran unimpeded.¹⁴⁴³

Section 5: Becoming an Elite Reserve

Between 1956 and 1967, the IDF implemented a series of reforms that would have important implications for reserve readiness in future conflicts, as the next chapter shows. The reforms—based in part on lessons learned from the 1956 Suez Crisis—also transformed how the IDF waged war and how it prepared its reserves to meet their wartime responsibilities.

The centerpiece of these reforms was a shift in IDF military doctrine, which still emphasized rapid mobile offensive operations that aimed to terminate wars quickly and decisively. However, Dayan's successors as CGS—Chaim Laskov (1958-61), Tzvi Tzur (1961-63), and Yitzhak Rabin (1964-68)—decided to place armor brigades in the lead of ground operations, not mechanized infantry as Dayan had preferred.¹⁴⁴⁴ The IDF judged that these reforms as necessary because the Egyptians and other Arab states acquired Soviet arms and developed Soviet-style doctrines that also placed a heavy emphasis on armored warfare.¹⁴⁴⁵

To put this new doctrine into practice, the IDF invested heavily in tanks, acquiring hundreds of new American made-M-48 Patton and British-made Centurion

¹⁴⁴³ Ibid.

¹⁴⁴⁴ Gawrych, *Key to the Sinai: The Battles of Abu Ageila*, 68.

¹⁴⁴⁵ Allon, *The Making of Israel's Army*, 69-72; Paul Kohn, "Israel Army Completes Manoeuvres," *The Jerusalem Post*, 22 July 1960, 4.

tanks.¹⁴⁴⁶ Brigadier General Israel Tal, who ran the armored corps from 1964 and 1967, helped convince IDF leadership to do so because he wanted a medium tank—like the M-48—that had the armor and mobility to penetrate fortified defenses and go toe-to-toe against the Soviet-made T-54/55 tanks that the Arabs were acquiring.¹⁴⁴⁷ That said, Tal’s vision for armored forces—which the IDF fully embraced by 1967—lacked a combined arms element, as he preferred for armor to operate behind enemy lines without direct infantry support.¹⁴⁴⁸

To improve the ability of tanks to fight without the infantry, the IDF bolstered the firepower of its armor formations. One of the main ways it did this was by fitting tanks with the British-made L7 105mm cannon.¹⁴⁴⁹ This new type of tank cannon was stabilized, enabling tank crews to fire accurately on the move at targets up to 1,500 meters away.¹⁴⁵⁰ At the same time, the IDF doubled its inventory of self-propelled artillery and mortars to provide ground commanders with mobile indirect fires systems that could maneuver alongside tanks and APCs.¹⁴⁵¹

¹⁴⁴⁶ Israel had around 1,000 tanks by 1967, whereas in 1957 its tank arsenal was around 200-300. See CIA, “Military Capabilities of Israel and the Arab States,” 26 May 1967, 4, <https://www.cia.gov/library/readingroom/docs/CIA-RDP79T00826A002000010049-0.pdf> (accessed 19 January 2019).

¹⁴⁴⁷ Gawrych, *Key to the Sinai: The Battles of Abu Ageila*, 69.

¹⁴⁴⁸ English and Gudmundsson, *On Infantry*, 170.

¹⁴⁴⁹ Rothenberg, *The Anatomy of the Israeli Army*, 122.

¹⁴⁵⁰ Gudmundsson, *On Armor*, 166-67.

¹⁴⁵¹ Gudmundsson, *On Artillery*, 155.

As tanks became the central arm of the Israeli army, the IDF order of battle changed. By 1962, the IDF fielded five armored brigades—up from one in 1956.¹⁴⁵² And by 1967, it had around seven to nine armored brigades (counts vary), as shown in Table 4.5 below.¹⁴⁵³ At the same time, the IDF started operating its first armored division—which was a reserve formation—in 1961.¹⁴⁵⁴

Table 4.5: IDF Size and Order of Battle, 1948-1967 ¹⁴⁵⁵			
Year	Active	Reserve	Maneuver Brigades
1948	80,000		12 – 3 Palmach; 9 Haganah
1950	~30,000	~70,000 to 80,000	11 (1 active armor and 1 infantry bde and 1 paratroop battalion; 8 reserve infantry)
1955-56	~85,000 to 100,000 (more than half were likely reservists)		1 paratrooper 1 armor 2 mechanized 13 infantry
1962	~30,000	~150,000	1 paratroop 5 armor 1 mechanized 17 infantry
1964	~30,000	~220,000	1 paratrooper ~ 5 armor ~ 2 mechanized ~17 infantry (including territorials)*
1966	~55,000	~204,000	3 to 4 paratrooper ~ 5 to 9 armor ~ 3 mechanized ~ 17 infantry (including territorials)
1967	~55,000	~225,000	3 to 4 paratrooper ~ 7 to 9 armor ~ 2 to 3 mechanized ~ 17 infantry (including territorials)

¹⁴⁵² CIA, “The Arab-Israeli Situation,” 06 April 1961, map 1, <https://www.cia.gov/readingroom/docs/CIA-RDP79S00427A000400060001-9.pdf> (accessed 08 April 2021).

¹⁴⁵³ Dupuy, *Elusive Victory*, 338; IISS, *Military Balance 1966*, 37.

¹⁴⁵⁴ Sharon, *Warrior*, 180; Van Creveld, *The Sword and the Olive*, 159.

¹⁴⁵⁵ Rothenberg, *The Anatomy of the Israeli Army*, 58, 85, 101; CIA, “The Arab-Israeli Situation,” 06 April 1961, map 1; IISS, *Military Balance 1964*, 32; CIA, “Military Capabilities of Israel and the Arab States,” 26 May 1967, 8; IISS, *Military Balance 1966*, 37; IISS, *Military Balance 1966*, 37; Dupuy, *Elusive Victory*, 338.

			Note: IDF organized these forces into four armored divisions or as independent brigades.
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*Note: Numbers are approximate, as the IDF kept its order of battle secret.*¹⁴⁵⁶

** Territorials are primarily reserve infantry units focused on defensive operations inside Israel's borders.*

IDF leaders also transformed and expanded the IAF, whose fighter-bomber fleet grew by 50 percent between 1956 and 1967.¹⁴⁵⁷ This transformation occurred because Israeli military leaders were underwhelmed by the IAF's performance in 1956, as they had to rely on the British and French to protect their airspace during the war.¹⁴⁵⁸ And they were highly impressed by how modern French and British aircraft inflicted heavy losses on the Egyptian air force.¹⁴⁵⁹

IDF planners aimed to use the air force to gain air superiority quickly at the start of a war, thereby allowing its combat aircraft to focus on providing close air support to ground forces.¹⁴⁶⁰ To ensure the IAF's success, the IDF began diverting its best conscripts to the air force, whereas previously, they had served in combat arms units in the army.¹⁴⁶¹ The rising importance of the IAF would significantly affect reserve readiness in later years.

Israel was able to support these reforms by growing its defense budget, taking advantage of its booming population and national wealth. Between 1948 and 1965,

¹⁴⁵⁶ Rothenberg, *The Anatomy of the Israeli Army*, 120.

¹⁴⁵⁷ David Rodman, *Combined Arms Warfare in Israeli Military History: From the War of Independence to Operation Protective Edge* (Brighton: Sussex Academic Press, 2019), 21.

¹⁴⁵⁸ Schiff, *A History of the Israeli Army*, 99; Gawrych, *Key to the Sinai: The Battles of Abu Ageila*, 67-69.

¹⁴⁵⁹ Ibid.

¹⁴⁶⁰ Ibid.

¹⁴⁶¹ Ibid.

the Israeli population increased from around 650,000 to 2.4 million as birthrates and immigration increased.¹⁴⁶² At the same time, the Israeli economy expanded by about 10 percent every year between 1957 and 1965, providing the Israeli state with a larger tax base to grow and modernize its armed forces.¹⁴⁶³

The IDF also benefited from the fact that the government devoted a high percentage of its overall budget to military training, equipment, and operations. In fact, in 1961, the CIA estimated that Israel spent around 26 percent of its budget on the military—about \$236,000,000 per year.¹⁴⁶⁴ And much of those funds went to operations, training, and equipment, as the IDF had low personnel costs compared to other armies, like those of the United States. Most Israeli soldiers were part-time reservists who the IDF did not have to feed and shelter throughout the year. Pay for those on active duty was also extremely low.¹⁴⁶⁵

Table 4.6: Israel Defense Expenditures (2018 USD) ¹⁴⁶⁶				
Year	Defense Spending as Percent of GDP	Israeli GDP (billions)	Estimated Expenditure (billions)	U.S. Aid (billions)
1960	7.46	2.60	.19	.06
1963	9.75	2.99	.26	.09
1966	9.44	3.98	.38	.13
1969	19.09	5.33	.87	.16

¹⁴⁶² Van Creveld, *The Sword and the Olive*, 156.

¹⁴⁶³ Ibid., 157.

¹⁴⁶⁴ CIA, “The Arab-Israeli Situation,” 06 April 1961, 6.

¹⁴⁶⁵ Irving Heymont, “Israeli Defense Forces,” *Military Review*, 08 February 1967, 41

¹⁴⁶⁶ World Bank, “Military expenditure (% of GDP) – Israel,” <https://data.worldbank.org/indicator/MS.MIL.XPND.GD.ZS?end=2018&locations=IL&start=1960&view=chart> (accessed 03 January 2020); World Bank, “Israel GDP,” <https://data.worldbank.org/country/israel?view=chart> (accessed 03 January 2020); Jewish Virtual Library, “U.S. Foreign Aid to Israel,” <https://www.jewishvirtuallibrary.org/total-u-s-foreign-aid-to-israel-1949-present> (accessed 23 February 2020).

The Israeli public tolerated high defense spending because many believed that Israel's national survival was at stake. During the 1960s, Egypt and other Arab powers had issued statements declaring that their aim was "the destruction of Israel."¹⁴⁶⁷ And the Israeli public—and government—mostly believed that rhetoric was true, despite the fact the Arabs were overmatched militarily by the Israelis, as would become evident in 1967.¹⁴⁶⁸ Israeli government officials also held public lectures and wrote newspaper articles to explain why high defense spending was necessary, citing grave threats to Israeli security.¹⁴⁶⁹

However, these technological changes presented challenges to reservists. Reserve and conscript armor units in the early 1960s struggled to maintain some of the new high-tech equipment they were receiving. Brigadier General Tal initially blamed such problems on lax maintenance standards.¹⁴⁷⁰ But eventually he came to understand that the conscripts and reservists did not have enough time and training to learn the intricacies of the complex electrical, hydraulic, and optical systems on the newer Centurion and Patton tanks.¹⁴⁷¹ Adding to the challenge was the fact that crews and maintainers had to learn how to work on around ten different vehicle types.¹⁴⁷² The IDF, unlike most armies, did not have a standard line of vehicles;

¹⁴⁶⁷ Bregman, *Israel's Wars*, 61.

¹⁴⁶⁸ Ibid.

¹⁴⁶⁹ Shimon Peres, "Strategy, Security, and Deterrents," *The Jerusalem Post*, 19 April 1961; Van Creveld, *The Sword and the Olive*, 155.

¹⁴⁷⁰ Rothenberg, *The Anatomy of the Israeli Army*, 123.

¹⁴⁷¹ Ibid.

¹⁴⁷² Ibid.

instead, it had tanks and armored vehicles from Britain, France, and the United States, in addition to modified versions of these vehicles.¹⁴⁷³ To address this challenge, Tal established a more rigorous maintenance program built around newly written standard operating procedures in 1965; he also assigned maintainers to specific vehicles, as opposed to having them learn how to maintain all types.¹⁴⁷⁴ By 1967, IDF units began seeing improvements in its maintenance program.¹⁴⁷⁵

In addition to improving maintenance programs, the IDF intensified its reserve and conscript training, as it began division-level exercises during Haim Laskov's tenure as CGS (1958-60).¹⁴⁷⁶ Reserve and conscript units also conducted more armor exercises in Israel's Negev desert, which would help prepare them for operating against the Egyptian army in the Sinai.¹⁴⁷⁷ Some reservists even spent their entire 30-day training period focused on such exercises.¹⁴⁷⁸ Training for tank crews was particularly rigorous, as the IDF placed a heavy emphasis on ensuring its tanks could outshoot their adversaries.¹⁴⁷⁹ Reservists would also have to conduct periodic

¹⁴⁷³ Ibid.

¹⁴⁷⁴ Ibid, 123-24.

¹⁴⁷⁵ Ibid., 124.

¹⁴⁷⁶ Gawrych, *Key to the Sinai: The Battles of Abu Ageila*, 71; Van Creveld, *The Sword and the Olive*, 159.

¹⁴⁷⁷ Gawrych, *Key to the Sinai: The Battles of Abu Ageila*, 71-72; Kohn, "Israel Army Completes Manoeuvres, 4.

¹⁴⁷⁸ Ibid.

¹⁴⁷⁹ Simon Dunstan, *Centurion vs T-55: Yom Kippur War 1973* (Oxford: Osprey Publishing, 2009), 35; Gawrych, *Key to the Sinai: The Battles of Abu Ageila*, 69-72.

training—beyond their 30-day obligations—on new equipment that the IDF had acquired.¹⁴⁸⁰

The IDF also worked to improve personnel readiness for reserve units. One way it did this was by removing reservists over the age of 40 and assigning them to support units, given the poor performance of older reservists during the Sinai campaign.¹⁴⁸¹ IDF officers also traveled to the United States to observe how U.S. national guardsmen conducted armor maneuvers within their condensed training schedules.¹⁴⁸² Others attended technical schools taught by the U.S. Army in fields such as tank warfare.¹⁴⁸³ And some officers who attended those schools would go on to take command of reserve units.¹⁴⁸⁴

Further growth in the size of the IDF in the late 1950s and early 1960s enabled it to place more active duty officers into reserve brigades and divisions, thereby bolstering the experience level of those units.¹⁴⁸⁵ Active duty officers, meanwhile, were able to leverage such opportunities to gain valuable command experience and the ability to spend more time with their families or on professional development, given the slower operational tempo of reserve units compared to active

¹⁴⁸⁰ Gal, *Portrait of an Israeli Soldier*, 42-43.

¹⁴⁸¹ Gawrych, *Key to the Sinai: The Battles of Abu Ageila*, 72.

¹⁴⁸² Jac Weller, “Israeli Armor: Lessons from the Six-Day War,” *Military Review*, November 1971, 46.

¹⁴⁸³ Ori Orr, *These Are My Brothers: A Dramatic Story of Heroism During the Yom Kippur War* (Tel Aviv: Contento Publishing, 2003), 14.

¹⁴⁸⁴ *Ibid.*, 14, 21.

¹⁴⁸⁵ *Ibid.*

duty ones in peacetime.¹⁴⁸⁶ As one reserve commander from later recalled, “there was time to learn since we didn’t carry the daily burden of ongoing security and training programs.”¹⁴⁸⁷ That said, service in the reserves had drawbacks. Some officers, for instance, considered the command of reserve units to be less prestigious, given the slower operational tempo and the lower quality equipment that reserve units generally received.¹⁴⁸⁸

Some reserve units often received lower quality equipment because the IDF prioritized certain reserve units over others. During his tenure as CGS, Yitzhak Rabin divided IDF ground units into two broad roles—defensive and offensive—based on the quality of personnel and equipment in each unit.¹⁴⁸⁹ Rabin assigned armor, mechanized, and parachute units—units found primarily in the active component of the IDF—to the offensive role.¹⁴⁹⁰ Purely infantry units, which were more common in the reserves, were assigned territorial defense missions.¹⁴⁹¹ Reserve units, however, would continue to figure prominently in IDF operations outside Israel in the decades that followed Rabin’s tenure as CGS. But his policy foreshadowed the current era in which the IDF relies almost exclusively on full-time units for offensive operations, as will be discussed in the next chapter.

¹⁴⁸⁶ Ibid., 23-24, 30.

¹⁴⁸⁷ Ibid., 33.

¹⁴⁸⁸ Ibid., 12, 23, 28.

¹⁴⁸⁹ Rabin, *The Rabin Memoirs*, 66.

¹⁴⁹⁰ Ibid.

¹⁴⁹¹ Ibid.

In summary, the IDF became a more mobile and lethal force in the decade following the Suez campaign. And it was able to ensure that its reserve forces could keep up with these changes by improving upon its already rigorous conscript and reserve training standards. Such reforms would help the IDF achieve a decisive military victory against its neighbors during the 1967 Six-Day War.

Section 6: A Victory for the Reserves

The 1967 Six-Day War began with a conflict over Israel's National Water Carrier Project, which diverted water from the Sea of Galilee and the Jordan River to support Israeli agriculture and industry. Many throughout the Arab World, including the Syrian Government, viewed the diversion as an attempt to attract even more Jewish settlers to Israel and expand its borders.¹⁴⁹² To disrupt the project, the Syrian military shelled construction sites in northern Israel and sponsored terrorist attacks on Israeli settlements, provoking retaliatory Israeli airstrikes in April 1967.¹⁴⁹³ Because he had signed a mutual defense pact with Syria, Egyptian President Gamal 'Abd al-Nasser deployed around seven divisions and an independent infantry brigade (about 100,000 troops) into the Sinai on 14 May and closed the Strait of Tiran to Israeli shipping.¹⁴⁹⁴

¹⁴⁹² Gat, "Nasser and the Six Day War," 614.

¹⁴⁹³ David Lesch, *The Arab-Israeli Conflict: A History* (New York: Oxford University Press, first edition, 2007), 205.

¹⁴⁹⁴ Bregman, *Israel's Wars*, 73; Morris, *Righteous Victims*, 302; Abraham Rabinovich, *The Battle for Jerusalem: An Unintended Conquest* (Middleton: Chappell & Co, 50th anniversary edition, 2017), 34.

In response, the Israelis developed a three-phase plan to expel the Egyptian military from the Sinai using three divisions assigned to Southern Command.¹⁴⁹⁵ Northern and Central Command would remain on the defense to block any potential Syrian or Jordanian intervention.¹⁴⁹⁶ The first phase featured a deep IAF strike against Egyptian Air Force (EAF) bases west of the Suez to destroy Egyptian aircraft while they were still on the ground. During phase two, the army—using reserve and conscript armored and mechanized units—would breach the Egyptian frontline defenses near Abu Ageilia and el-Arish and move west to seize the Giddi and Mitla Pass near the Suez Canal.¹⁴⁹⁷ In phase three, the IDF would use armored forces—supported by the IAF—to destroy the Egyptian army as it sought to retreat through the passes.¹⁴⁹⁸

Among the three divisions assigned to Southern Command were multiple reserve brigades, which would play a leading role in the operation. The northern division, which the IDF placed along the border with Gaza, was commanded by Brigadier General Tal.¹⁴⁹⁹ Under Tal's command were three maneuver elements, including the elite 7th Armored Brigade, equipped with new Centurion and Patton

¹⁴⁹⁵ Michael Oren, *Six Days of War: June 1967 and the Making of the Modern Middle East* (New York: Presidio, 2003), 178; Rabin, *The Rabin Memoirs*, 98.

¹⁴⁹⁶ Gawrych, *Key to the Sinai: The Battles of Abu Ageila*, 88.

¹⁴⁹⁷ Ibid.

¹⁴⁹⁸ Chaim Herzog, *The Arab-Israeli Wars: War and Peace in the Middle East* (New York: Vintage, 2015), 157.

¹⁴⁹⁹ Oren, *Six Days of War*, 178.

tanks.¹⁵⁰⁰ The other armored brigade—the 60th—was a reserve formation with older AMX-13 and Sherman tanks.¹⁵⁰¹ Additionally, the Israelis placed a reserve paratrooper brigade (the 55th) in the north to provide infantry support for the tank brigades assigned to breach Arab fortifications.¹⁵⁰²

In the south was a reserve division commanded by the veteran Ariel Sharon, now a brigadier general. Sharon's division consisted of a mix of conscripts and reservists tasked with seizing Umm Qatef and Abu Ageilia to open the central axis of advance into the Sinai.¹⁵⁰³ To ensure it had the necessary firepower and mobility to avoid a repeat of the failed attack of 1956, Sharon's division received several attachments, including six battalions of artillery, two reserve infantry brigades, and a combat engineer battalion.¹⁵⁰⁴ He also received two reserve paratrooper battalions carried by helicopters and a conscript armored brigade.¹⁵⁰⁵ Once Sharon breached the Umm Qatef fortifications and seized Abu Ageilia, he was supposed to advance west to the Mitla and Giddi passes to help block the Egyptian army's retreat.¹⁵⁰⁶

¹⁵⁰⁰ Ibid., 179.

¹⁵⁰¹ Ibid.; Pollack, *Arabs at War*, 64.

¹⁵⁰² Bregman, *Israel's Wars*, 75; Oren, *Six Days of War*, 179.

¹⁵⁰³ Sharon, *Warrior*, 187.

¹⁵⁰⁴ Bregman, *Israel's Wars*, 75.

¹⁵⁰⁵ Ibid., 75; Steven Pressfield, *The Lion's Gate: On the Front Lines of the Six Day War* (New York: Sentinel, 2014), 209; Rothenberg, *The Anatomy of the Israeli Army*, 142.

¹⁵⁰⁶ Gawrych, *Key to the Sinai: The Battles of Abu Ageila*, 88.

Between Sharon and Tal, was a second division commanded by Avraham Yoffe, containing two reserve armor brigades equipped with Centurion tanks.¹⁵⁰⁷ Yoffe's main task was to advance between Tal's and Sharon's divisions over severely restricted terrain to surprise the Egyptians' second line of defense and reserve in the central Sinai.¹⁵⁰⁸ Once through the restricted terrain, one brigade would move toward Bir Lahfan to block an Egyptian counterattack; the other brigade would help Sharon by flanking the Egyptian defenses at Umm Qatef from the west.¹⁵⁰⁹ Later in the operation, Yoffe was supposed to advance toward Mitla and coordinate with Tal to defeat the Egyptian 3rd Infantry and 4th Armored Divisions.¹⁵¹⁰

¹⁵⁰⁷ Bregman, *Israel's Wars*, 75; Sharon, *Warrior*, 183.

¹⁵⁰⁸ *Ibid.*, 187.

¹⁵⁰⁹ Gawrych, *Key to the Sinai: The Battles of Abu Ageila*, 88.

¹⁵¹⁰ *Ibid.*

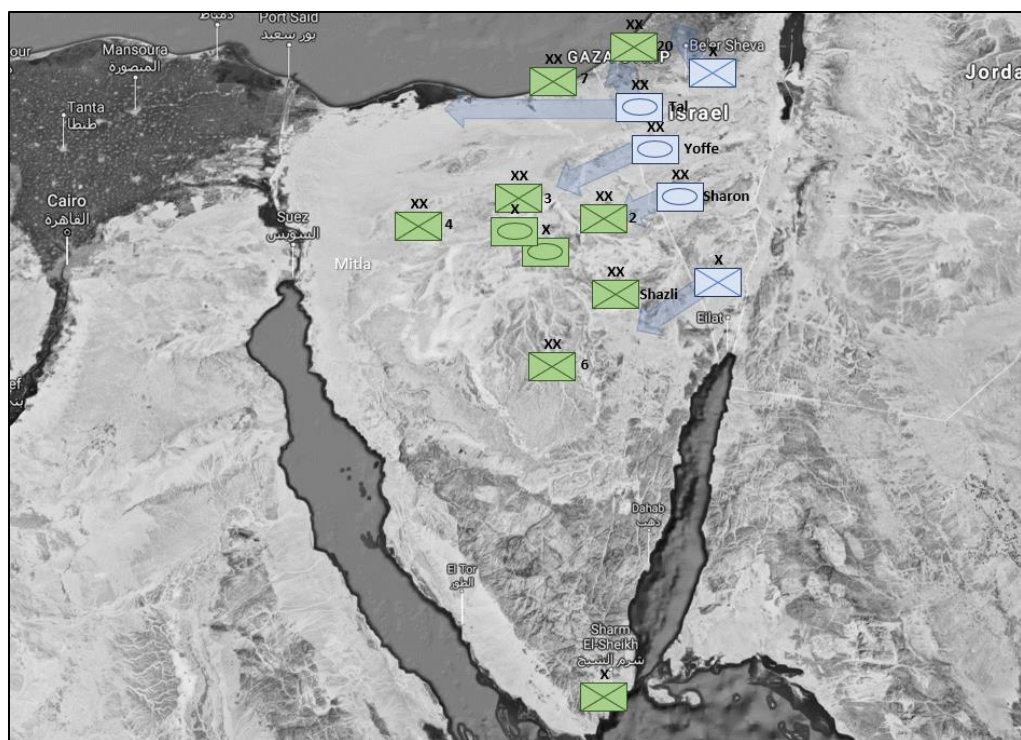


Figure 4.2: Israeli Plan of Attack: Sinai Front, 05 June 1967

The IDF reserves entered the war at a much higher state of readiness than in previous conflicts due to the aforementioned personnel, equipment, and training improvements. And unlike in 1956, Israeli reservists undertook several weeks of pre-deployment training before the start of the war, as Prime Minister Levi Eshkol (1963-67) approved a partial reserve mobilization in response to the Egyptian movement into the Sinai on 19 May.¹⁵¹¹

This additional training was necessary for two reasons. For one, it allowed individuals who had not attended all their training to catch up with their comrades. Although reserve training was mandatory, some missed important training events due

¹⁵¹¹ Bregman, *Israel's Wars*, 74-75.

to school, work, or personal conflicts.¹⁵¹² Extra training was also necessary because it likely helped reservists get back into a military mindset and accustomed to 24-hour operations. Sharon's reserve division, for instance, trained "day and night" in the Negev desert in the two weeks leading up to the war, focusing in particular on bringing reservists up to the same level of abilities as conscripts.¹⁵¹³

However, the relatively lengthy reserve mobilization damaged the Israeli economy. Some businesses had to shut down temporarily or curtail their operations as their employees were called away unexpectedly for service.¹⁵¹⁴ And tourism declined as war seemed likely by late May, costing the Israeli economy around \$500,000 a day.¹⁵¹⁵ These economic pressures eventually convinced Eshkol and Rabin to release 30,000 reservists back to their civilian jobs on 31 May.¹⁵¹⁶ The IDF later recalled them via radio broadcasts sent out on the morning of 05 June, after it initiated its attack against Egypt.¹⁵¹⁷

As planned, the war began with an IAF attack on Egypt at around 0745 on 05 June 1967. Ten flights of four IAF aircraft bombed EAF facilities across Egypt, destroying 298 of its 420 aircraft.¹⁵¹⁸ Making matters worse for Egypt, senior

¹⁵¹² Charles Mohr, "Rapid Mobilization of Reservists a Key Factor in Israeli Victory," *New York Times*, 13 June 1967, 18.

¹⁵¹³ Sharon, *Warrior*, 181.

¹⁵¹⁴ Terrence Smith, "Reserve Call-up Costly to Israel," *New York Times*, 29 May 1967, 4.

¹⁵¹⁵ Ibid.

¹⁵¹⁶ Rabin, *The Rabin Memoirs*, 93; Rabinovich, *The Battle for Jerusalem*, 66.

¹⁵¹⁷ Ibid., 95.

¹⁵¹⁸ Kenneth Pollack, *Armies of Sand: The Past, Present, and Future of Arab Military Effectiveness* (New York: Oxford University Press, 2018), 2.

Egyptian military commanders concealed the results of the raid from Nasser and units deployed in the Sinai entered battle thinking they had air support.¹⁵¹⁹

Shortly after the start of the IAF raid, IDF ground operations commenced, when three Israeli Ugdot (plural for Ugdah, meaning a division-level task force) advanced into the Sinai.¹⁵²⁰ Facing the Israelis was a large—but weak—Egyptian army of around 100,000 personnel, half of whom were poorly trained reservists rushed to action because much of the active Egyptian army was deployed to Yemen.¹⁵²¹ The Egyptians also employed a cumbersome command and control system that passed orders and intelligence through six layers of bureaucracy between the General Staff and frontline units.¹⁵²² Such a system was ill-suited for fighting against the Israelis, an opponent who, as previously described, employed a highly decentralized command system that enabled them to maintain a higher operational tempo.

Exploiting these advantages, the Israelis rapidly destroyed the Egyptian army in the Sinai in one of history's most lopsided battles. In the north, conscript units in Brigadier General Tal's Ugdah captured critical positions along the northern route to the Suez, defeating the Egyptian 7th Infantry Division.¹⁵²³ In the south, Israeli reservists from Sharon's Ugdah made greater contributions in the battle to seize the

¹⁵¹⁹ Ibid., 2-3.

¹⁵²⁰ Morris, *Righteous Victims*, 319.

¹⁵²¹ Guy Laron, *The Six Day War: The Breaking of the Middle East* (New Haven: Yale University Press, 2017), 81; Gawrych, *Key to the Sinai*, 78-79.

¹⁵²² Oren, *Six Days of War*, 160.

¹⁵²³ Pollack, *Arabs at War*, 64

Umm Qatef ridgeline from the Egyptian 2nd Infantry Division—the same location Egyptian forces had previously held off Israeli attacks during the 1956 Sinai campaign. During the battle, Sharon used a brigade of reserve paratroopers to attack and degrade the 2nd Infantry Division's artillery units west of Umm Qatef, helping Israeli infantry and armor units seize the ridgeline and open the central and southern approaches towards the Suez.¹⁵²⁴

The most significant contribution by reserve forces in the Sinai campaign came on the central axis with Yoffe's Ugdah. Yoffe, a reserve officer who had extensive combat experience with the British army in WWII, the Haganah, and with the IDF in 1956, successfully maneuvered his Ugdah through severely restricted terrain between Sharon and Tal during the first day of the war.¹⁵²⁵ In doing so he caught the Egyptians by surprise, as they were not expecting tanks to be able to advance over the rough terrain of the central Sinai.¹⁵²⁶ In the ensuing engagements against the Egyptian 4th Armored Division, Israeli tank crews took advantage of their long-range gunnery skills to destroy nine Egyptian T-55s, at the cost of one friendly tank loss, forcing the Egyptians to flee towards Jebel Libni.¹⁵²⁷ The next day, Yoffe's reservists pursued and defeated fleeing Egyptians at Jebel Libni, where IDF tanks destroyed an additional 30 or more T-55s without losing a single loss.¹⁵²⁸

¹⁵²⁴ Gawrych, *Key to the Sinai: The Battles of Abu Ageila*, 96, 108-09.

¹⁵²⁵ Simon Dunstan, *The Six Day War 1967: Sinai* (Oxford: Osprey Publishing, 2012), loc. 386 (22%) [Kindle e-book].

¹⁵²⁶ Pollack, *Arabs at War*, 71.

¹⁵²⁷ Ibid.

¹⁵²⁸ Ibid.

When news of the 4th Armored Division's defeat reached Cairo, the Egyptian High Command ordered a hasty retreat of all Egyptian forces in the Sinai to more defensible terrain near the Giddi and Mitla Passes.¹⁵²⁹ But the order caused a wave of panic to sweep throughout the Egyptian ranks, leading to a route.¹⁵³⁰ On 09 June, Nasser decided to cut his losses and agreed to a ceasefire with the Israelis. The cost of the army's incompetence was the death of over 10,000 Egyptian soldiers and the loss of Egyptian control over the Sinai.¹⁵³¹

Reservists also played a critical role in the central front against the Jordanians. As discussed, Israel wanted to avoid a fight with the Jordanians. But King Hussein of Jordan, who had signed a mutual defense pact with Egypt on 30 May, faced tremendous political pressure from his people—many of whom were Palestinian refugees—to join the battle.¹⁵³² Thus, on 05 June, Hussein reluctantly agreed to fight, having been fed lies by Egypt that the Egyptian army and air force were routing the Israelis in the Sinai.¹⁵³³

The Jordanian army performed well in combat against the Israelis in 1948. But much had changed since then. It no longer had British officers in charge of its ground forces. And many of its soldiers deployed to the West Bank were not

¹⁵²⁹ Ibid.; Morris, *Righteous Victims*, 319.

¹⁵³⁰ Pollack, *Arabs at War*, 72.

¹⁵³¹ Laron, *The Six-Day War*, 247; Morris, *Righteous Victims*, 327.

¹⁵³² Bregman, *Israel's Wars*, 86; Rabinovich, *The Battle for Jerusalem*, 65.

¹⁵³³ Bregman, *Israel's Wars*, 86-87.

professionals; instead, they were part-time Palestinian reservists and militiamen who, unlike the Israelis, infrequently trained in peacetime.¹⁵³⁴

That said, the Jordanians still posed a threat to Israel; several of their units were equipped with modern U.S.-made Patton tanks, and many of its officers were professional and well trained.¹⁵³⁵ And their seven infantry brigades deployed inside the West Bank were arrayed in prepared battle positions supported by two armored brigades deployed near the Jordan valley plus an Iraqi mechanized brigade in western Jordan that could be called into action.¹⁵³⁶

Facing the Jordanians were around seven reserve IDF brigades and one conscript brigade, including:

- The 16th Infantry Brigade (known as the Jerusalem or Etzioni Brigade), which was a reserve unit composed mostly of Jerusalem residents commanded by Colonel Eliezer Amitai, a veteran of the 1948 war.¹⁵³⁷
- The 10th Armored Brigade (known as the Harel brigade), commanded by Colonel Uri Ben-Ari, a veteran reserve officer of the 1956 campaign and one of Israel's first tank commanders who helped write Israeli armor doctrine in the 1960s.¹⁵³⁸

¹⁵³⁴ Rabinovich, *The Battle for Jerusalem*, 82.

¹⁵³⁵ Bregman, *Israel's Wars*, 74

¹⁵³⁶ Ibid.

¹⁵³⁷ Oren, *Six Days of War*, 186.

¹⁵³⁸ Rabinovich, *The Battle for Jerusalem*, 54.

- Ugdah Peled, a division-level task force commanded by Brigadier General Elad Peled whose forces were attached to Central Command from Northern Command.¹⁵³⁹ Its three main elements were the 37th Armored Brigade (reserve), the 45th Armored Brigade (conscript), and the 9th Infantry Brigade (reserve).¹⁵⁴⁰
- The 4th and 5th Infantry Brigades, both of which were reserve.¹⁵⁴¹
- The 55th Paratrooper Brigade, a reserve unit commanded by Mordechai “Motta” Gur, an active duty officer and Haganah veteran whose paratroopers mostly consisted of tough young men from farming collectives.¹⁵⁴²

Although led by veterans, the reservists in the Jerusalem sector were not at the same state of readiness as those in the Sinai. The hundreds of reservists from the Jerusalem brigade who were deactivated in late May, for instance, had to be rushed back into service—some still wearing civilian clothes—on 05 June with little time to prepare.¹⁵⁴³ And units tasked with breaching obstacles, like the 55th paratroopers, lacked sufficient quantities of Bangalore torpedoes—used for cutting paths through obstacles—and grenades because those supplies were diverted to the Sinai front.¹⁵⁴⁴ The reservists in the 10th Armored Brigade and Ugdah Peled also went to battle

¹⁵³⁹ Oren, *Six Days of War*, 193

¹⁵⁴⁰ Simon Dunstan, *The Six Day War 1967 – Jordan and Syria* (Oxford: Osprey Publishing, 2013), location 513 (32%) [Kindle e-book]; Rothenberg, *The Anatomy of the Israeli Army*, 144.

¹⁵⁴¹ Dunstan, *The Six Day War 1967 – Jordan and Syria*, location 513 (32%).

¹⁵⁴² Rabinovich, *The Battle for Jerusalem*, 29, 52.

¹⁵⁴³ *Ibid.*, 107.

¹⁵⁴⁴ *Ibid.*, 200.

equipped mainly with WWII-era Sherman tanks whose cannons struggled to penetrate the frontal armor of newer Jordanian Patton tanks.¹⁵⁴⁵

The Jordanian attack began on the morning of 05 June with the capture of the UN compound in Jerusalem and shelling of Israeli cities.¹⁵⁴⁶ Initially, the Israeli cabinet opted for a limited response, dispatching IAF fighters to bomb Jordanian airfields at Mafraq and Amman.¹⁵⁴⁷ But as the IAF attacked, Dayan decided to escalate, authorizing ground incursions into the West Bank to retake the UN compound and prevent the Jordanians from driving into central Israel.¹⁵⁴⁸ To do so, the Jerusalem Brigade was to retake the UN compound and advance toward the southern wall of the Old City of Jerusalem. At the same time, the 10th Armored Brigade (reserve) with support from the 4th Infantry Brigade would envelop the city from the north while seizing key high ground along the Jerusalem-Tel Aviv road.¹⁵⁴⁹ Meanwhile, paratroopers from the 55th brigade (reserve), who had redeployed from the Sinai to Jerusalem, would move deeper into Jerusalem on an eastwardly arch

¹⁵⁴⁵ Oren, *Six Days of War*, 194.

¹⁵⁴⁶ Ibid., 185-186; Pollack, *Arabs at War*, 298, 300.

¹⁵⁴⁷ Bregman, *Israel's Wars*, 87; Pollack, *Arabs at War*, 297.

¹⁵⁴⁸ Oren, *Six Days of War*, 190-91.

¹⁵⁴⁹ Ibid.; Pollack, *Arabs at War*, 300-01.

around the Old City.¹⁵⁵⁰ North of Jerusalem, Ugdah Peled was assigned to attack Jordanian army units stationed around Jenin and Nablus.¹⁵⁵¹

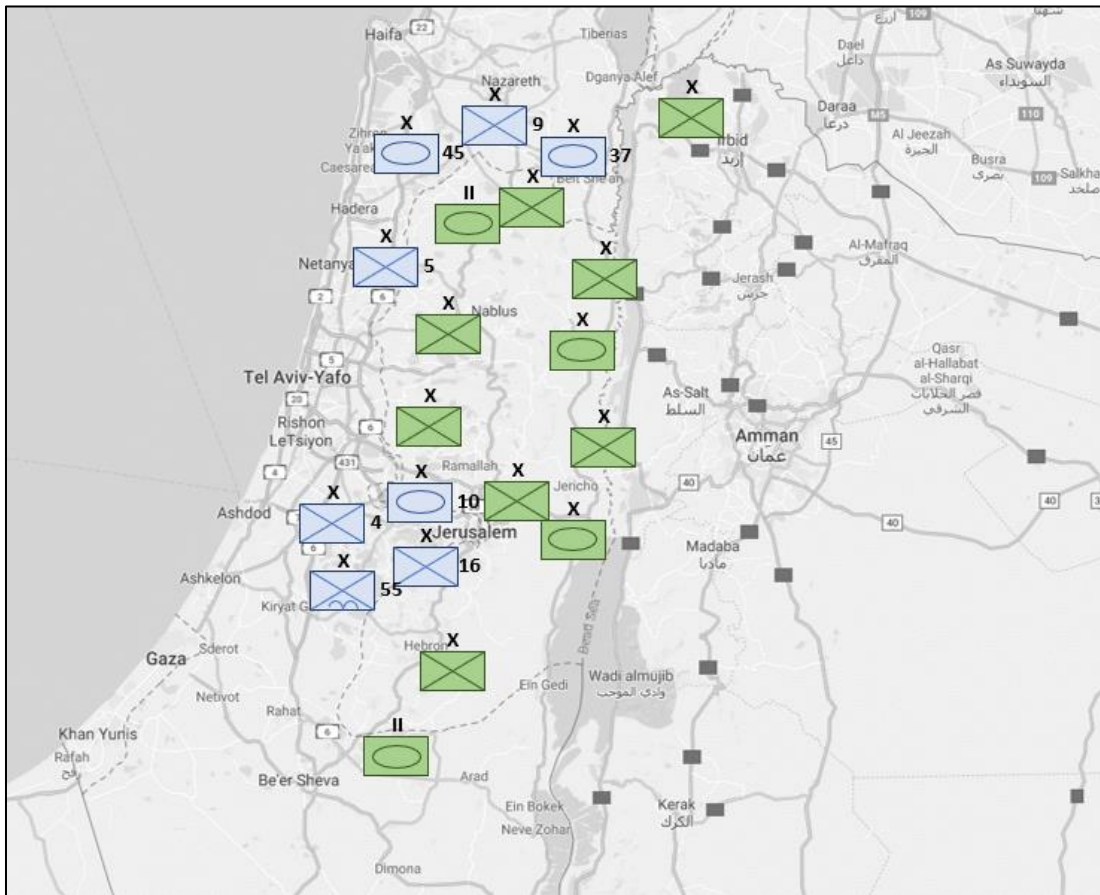


Figure 4.3: Disposition of Forces, West Bank 05 June 1967¹⁵⁵²

Although they faced determined resistance in a difficult urban environment, the Israelis—with reservists in the lead—were able to defeat the Jordanians in initial engagements inside Jerusalem and further north in Jenin. Realizing his precarious position, King Hussein ordered his generals to evacuate Jerusalem on the evening of

¹⁵⁵⁰ Oren, *Six Days of War*, 206.

¹⁵⁵¹ Ibid., 191.

¹⁵⁵² Note the 16th Brigade is the formal name for the Jerusalem Brigade.

06 June.¹⁵⁵³ But a few hours later, he abruptly rescinded the order following a US and USSR-led ceasefire proposal, which he and the Israelis accepted, that was supposed to go into effect at dawn on 07 June.¹⁵⁵⁴ Although they had agreed to a ceasefire, the Israelis continued their attack before it went into effect at dawn, striking the Jordanians at Nablus in the north, while the reserve paratroopers of 55th brigade took the Old City of Jerusalem.¹⁵⁵⁵ In total, the Jordanians lost 6,000 to 7,000 killed in action, while the Israelis lost 302 killed in action.¹⁵⁵⁶

The last phase of the war unfolded along the Golan Heights. Israel had hoped to avoid direct combat with the Syrians at the start of the war. But fighting erupted almost immediately when Syria launched air attacks on northern Israel.¹⁵⁵⁷ The IAF retaliated by raiding Syrian airbases, destroying about half the Syrian Air Force.¹⁵⁵⁸ Undeterred, the Syrians continued to shell Israeli communities, leading Dayan to authorize an attack by two Ugdot—both of which relied heavily on reservists—to seize the Golan Heights on the morning of 09 June.¹⁵⁵⁹ After a brief, but intense, battle, the Israelis successfully took the heights, as the Syrians proved incapable of

¹⁵⁵³ Pollack, *Arabs at War*, 314; Oren, *Six Days of War*, 238.

¹⁵⁵⁴ Ibid., 239-40.

¹⁵⁵⁵ Ibid., 242-43.

¹⁵⁵⁶ Pollack, *Arabs at War*, 315.

¹⁵⁵⁷ Pollack, *Armies of Sand*, 3.

¹⁵⁵⁸ Ibid.

¹⁵⁵⁹ Schiff, *A History of the Israeli Army*, 140; Bregman, *Israel's Wars*, 90; Rothenberg, *The Anatomy of the Israeli Army*, 144; Dunstan, *The Six Day War 1967 – Jordan and Syria*, loc 585 (36%).

mounting an effective defense and panicked once Israeli troops penetrated their positions.¹⁵⁶⁰

In total, the Arabs lost around 20,000 soldiers, while the Israelis suffered 776 killed in action.¹⁵⁶¹ Israel, moreover, improved its strategic depth with its acquisition of the Sinai, the Golan Heights, and the West Bank—a major strategic victory for the Jewish state, which expanded from 8,000 square miles to about 26,500 square miles.¹⁵⁶² But seizing that territory altered the IDF's mission and capabilities in ways that have challenged its ability to maintain effective reserve forces, as the next chapter shows.

IDF reserve units played important roles in all three fronts of the 1967 war, seizing Jerusalem, scaling the Golan Heights, and triggering the total collapse of the Egyptian army in the Sinai. And much of their success can be traced to the fact that many of their senior officers and staff were veterans of previous wars and that the rank-and-file members had generally received intensive peacetime training, unlike the reserves of their Arab adversaries. In fact, the 1967 War was, in many ways, a story of contrasting reserve forces. The IDF invested in their reserves and achieved decisive results. And their adversaries neglected their reserves, which was particularly problematic for the Egyptians, given much of their Sinai-based force in 1967 was composed of reservists.

¹⁵⁶⁰ Pollack, *Armies of Sand*, 17.

¹⁵⁶¹ *Ibid.*, 18.

¹⁵⁶² CIA, "Israel: Problems Behind the Battle Lines," 10 May 1972, 2, <https://www.cia.gov/readingroom/docs/CIA-RDP85T00875R001100130058-9.pdf> (accessed 01 April 2021).

Section 7: The Height of Reserve Performance

The seizing of the Sinai, Golan Heights, West Bank, and Gaza Strip provided Israel with more defensible borders. But those gains came with costs. Namely, the IDF had to garrison expanded Israeli territory and police a restive Palestinian population.¹⁵⁶³ And because its conscript army was so small, the IDF had to use reservists to fulfill some of these new mission requirements. As an IDF spokesman reported in the summer of 1967, “We will need some of the reservists to hold the area...The borders are enormous compared with what we had before. We have to guard them against attack even though we don’t expect any, and we have to maintain order in the occupied areas.”¹⁵⁶⁴ Thus, thousands of reservists remained on active service following the 1967 War, ushering in a new era in the history of the IDF reserve—an era that witnessed the reserve’s direct involvement in an increasing number of protracted conflicts and security operations that would eventually undermine its morale and readiness.¹⁵⁶⁵

The first of such protracted battles unfolded along the banks of the Suez Canal. Egypt and its allies were determined to reverse the outcome of the 1967 War, declaring during the Arab Summit of 1967 that there would be “no peace, no

¹⁵⁶³ Instability was low in the Palestinian territories in the late 1960s and early 1970s compared to the unrest that would occur in the 1980s and 90s. However, Palestinian militants and their supports resorted to terrorism in some cases during this period, like the attack by the Palestinian terrorist group Black September on Israeli athletes during the 1972 Munich Olympics.

¹⁵⁶⁴ Terrence Smith, “Israel Demobilizing Slowly and Without Fanfare,” *The New York Times*, 24 June 1967, 5.

¹⁵⁶⁵ Ibid.

recognition, and no negotiation” with Israel.¹⁵⁶⁶ Additionally, Egypt and Syria worked with the Soviet Union to rebuild their military capabilities, acquiring new tanks, surface-to-air missiles, and anti-tank guided missiles (ATGMs).¹⁵⁶⁷ With this equipment, Egypt launched raids on Israeli positions across the Suez to pressure the Israeli government to relinquish control of the Sinai.¹⁵⁶⁸ But Israel responded with force, authorizing retaliatory air and artillery strikes on Egyptian positions.¹⁵⁶⁹ The resulting conflict—known as the War of Attrition—culminated in August 1970 when the U.S. intervened diplomatically and engineered a ceasefire.¹⁵⁷⁰ Ultimately, around 400 Israeli soldiers were killed and hundreds more were wounded in the years-long conflict.¹⁵⁷¹

During the War of Attrition, the IDF constructed a network of fortifications along the eastern bank of the Suez Canal known as the Bar Lev line—named after IDF CGS Chaim Bar Lev (1968-71)—to protect its soldiers from the shelling and to provide early warning of an attempt by the Egyptians to cross the canal.¹⁵⁷² To hold the line, which had 32 strongpoints, the IDF called on reserve units, though conscript

¹⁵⁶⁶ Gal, *Portrait of an Israeli Soldier*, 18.

¹⁵⁶⁷ Bregman, *Israel's Wars*, 93-95.

¹⁵⁶⁸ CIA, “The 1973 Arab-Israeli War,” September 1975, 10, available at <https://www.cia.gov/library/readingroom/docs/1975-09-01A.pdf> (accessed 01 January 2020).

¹⁵⁶⁹ CIA, “The Suez Canal Front,” 03 August 1970, 2, <https://www.cia.gov/readingroom/docs/CIA-RDP79R00967A000200030012-7.pdf> (accessed 01 April 2020).

¹⁵⁷⁰ CIA, “The 1973 Arab-Israeli War,” 10.

¹⁵⁷¹ Bregman, *Israel's Wars*, 100-01; Shapira, *Israel*, location 7107 (57%) [Kindle e-book].

¹⁵⁷² Bregman, *Israel's Wars*, 97.

units held the line at first.¹⁵⁷³ Reserve units, in turn, served on the Bar Lev line on 30-day rotations.¹⁵⁷⁴ Although such rotations gave reservists additional operational experience, they cut into training time. What is more, duty on the Bar Lev line was often demoralizing, given the unpopularity of the War of Attrition among the Israeli public due to its indecisiveness and the near-constant threat of air and artillery strikes.¹⁵⁷⁵

Lost training time was problematic for Israeli reservists for two reasons. First, it prevented them from conducting large-scale mobilization exercises as they had in the past.¹⁵⁷⁶ As we will see, that contributed to several missteps in the early days of the 1973 Yom Kippur War. Second, rotations to the Suez Canal and elsewhere deprived reservists of opportunities to keep up with changes to IDF warfighting methods and technologies.

The IDF's victories using tanks and combat aircraft in 1967 convinced Israeli military and political leaders that such equipment would remain decisive in future conflicts.¹⁵⁷⁷ And the back-to-back appointments of two armored officers as CGS—Chaim Bar-Lev (1968-71) and David Eleazar (1971-74) — reinforced such

¹⁵⁷³ Rothenberg, *The Anatomy of the Israeli Army*, 171.

¹⁵⁷⁴ Abraham Rabinovich, *The Yom Kippur War: The Epic Encounter That Transformed the Middle East* (New York: Shocken, revised and updated edition, 2007), location 2036 (18%) [Kindle e-book].

¹⁵⁷⁵ Bregman, *Israel's Wars*, 101; Ammon Rubinstein, "6 Days Plus 3 Years: Israel Asks, 'Ma, Ihieh Hassof? Whit Will be the End?' A Mad Mixture of Peace and War has Become Part of Israeli Daily Life 'what Will be the End?'," *The New York Times*, 31 May 1970, 157.

¹⁵⁷⁶ Sakal, *Soldier in the Sinai*, 97.

¹⁵⁷⁷ Rothenberg, *The Anatomy of the Israeli Army*, 157-58.

preferences.¹⁵⁷⁸ Under Bar-Lev and Eleazar, the IDF drew up a new tank doctrine called “Totality of the Tank.” The doctrine, written by Brigadier General Israeli Tal, assumed that Israeli tanks could fight with little to no infantry support, taking advantage of the wide-open expanses of the desert battlefields of the Sinai and the open plains of the Golan.¹⁵⁷⁹ Infantry, meanwhile, would consolidate gains after the main battle.¹⁵⁸⁰

Thus, between 1967 and 1973, the IDF acquired hundreds of new tanks—including 150 U.S.-made M-60 Pattons—and 119 combat aircraft armed with newly developed U.S.-made precision-guided munitions (PGMs)—a type of munition that would become increasingly important to Israeli military operations and strategy in the coming decades.¹⁵⁸¹ Additionally, to improve its combined arms capabilities and the mobility of the rest of its ground forces, the IDF acquired 450 M-113 armored personnel carriers (APCs) and 24 M-109 self-propelled howitzers.¹⁵⁸² In short, the IDF was able to leverage its warming relations with the United States to reshape itself from an infantry army into a higher-tech military centered on tanks and combat aircraft.

¹⁵⁷⁸ Ibid.

¹⁵⁷⁹ Rabinovich, *The Yom Kippur War*, location 801 (7%) [Kindle e-book].

¹⁵⁸⁰ Ibid.

¹⁵⁸¹ U.S. Department of State, “The Military Balance in the Mid East,” 19 November 1971, 2, 19, <https://www.cia.gov/readingroom/docs/LOC-HAK-18-3-39-6.pdf> (accessed 01 January 2020); IDA, “Assessment of Weapons and Tactics Used in the October 1973 Middle East War,” 80, <https://www.cia.gov/library/readingroom/docs/LOC-HAK-480-3-1-4.pdf> (accessed 01 January 2020).

¹⁵⁸² U.S. Department of State, “The Military Balance in the Mid East,” 19 November 1971, table IV (unnumbered page).

Table 4.7: Growth in Major IDF Weapons Systems (1967-73) ¹⁵⁸³			
	Combat Aircraft	Main Battle Tanks	Armored Vehicles
1967	214	1,123	Data Unavailable*
1971	337	1,400	3,100
1973	354	2,119	4,367
*The IDF only had outdated WWII-era half-tracks until it captured Jordanian M-113s in 1967 and began receiving newer versions from the United States after the war.			

But its evolution into a higher-tech force stressed the IDF in general and its reservists in particular. Israeli defense spending, for instance, tripled between 1966 and 1970 as the IDF purchased over \$100 million in new or upgraded military systems, according to CIA estimates from the time.¹⁵⁸⁴ Israeli defense spending also rose because it had to expand its standing army between 1967 and 1973 from around 50,000 (backed by 225,000 reservists) to over 100,000 (backed by 300,000 reservists) to garrison and police newly acquired territory and defend against increasing attacks by Palestinian militant groups.¹⁵⁸⁵ It did so by recalling thousands of reservists to active duty and by expanding the maximum age for reservists to serve from 49 to 55.¹⁵⁸⁶

¹⁵⁸³ CIA, "The 1973 Arab-Israeli War," 28; CIA, "Military Capabilities of Israel and the Arab States, 26 May 1967, 8; U.S. Department of State, "The Military Balance in the Mid East," 19 November 1971, 2, 19; IDA, "Assessment of Weapons and Tactics Used in the October 1973 Middle East War," 80.

¹⁵⁸⁴ CIA, "The Suez Canal Front," 03 August 1970, <https://www.cia.gov/library/readingroom/docs/CIA-RDP79R00967A000200030012-7.pdf> (accessed 01 January 2020); CIA, "Israeli Development of the Occupied Territories," November 1969, 10, <https://www.cia.gov/library/readingroom/docs/CIA-RDP84-00825R000100610001-8.pdf> (accessed 01 January 2020).

¹⁵⁸⁵ DIA, "The Arab-Israeli Conflict," October 1973, <https://www.cia.gov/library/readingroom/docs/LOC-HAK-480-2-3-3.pdf> (accessed 01 January 2020); CIA, "Military Capabilities of Israel and the Arab States," 26 May 1967, 8.

¹⁵⁸⁶ Gal, *Portrait of an Israeli Soldier*, 19; James Feron, "Israel Lifts Top Age for Reserve Duty from 49 to 55," *The New York Times*, 01 November 1969, 3.

Expanding its ranks raised overhead costs, as the IDF needed to house, feed, equip, and pay thousands of additional full-time soldiers. Keeping Israeli reservists on extended active tours also exhausted funds to pay reservists, forcing the government to dedicate additional funding to cover reserve salaries.¹⁵⁸⁷ The government also raised reserve pay during extended call ups to the Suez Canal from \$195 to \$418 to compensate for lost income from their civilian employers.¹⁵⁸⁸

Fortunately, for Israel, it could offset some of these costs with U.S. military aid that rose rapidly following the 1967 War.¹⁵⁸⁹ Additionally, Israeli GNP doubled between 1967 and 1973, thereby expanding the government's ability to raise defense spending through taxation or loans.

Table 4.8: Israeli GNP and U.S. Aid (1967-1973) ¹⁵⁹⁰		
	GNP	U.S. Aid
1967	\$3.9B	\$23.7M
1969	\$5.3B	\$160.3M
1971	\$6.6B	\$634.3M
1973	\$8.7B	\$492.8M

¹⁵⁸⁷ Staff Writers, "Reserve duty fund in red, fees to rise," *The Jerusalem Post*, 03 November 1969, 7.

¹⁵⁸⁸ Staff Writers, "Tougher Front Line By Increasing Reserve Duty," *The Jerusalem Post*, 07 April 1970, 8.

¹⁵⁸⁹ CIA, "National Intelligence Estimate: Israel," 29 June 1972, 16, https://www.cia.gov/library/readingroom/docs/DOC_0001518685.pdf (accessed 01 January 2020).

¹⁵⁹⁰ Jewish Virtual Library, "U.S. Foreign Aid to Israel," undated, <https://www.jewishvirtuallibrary.org/total-u-s-foreign-aid-to-israel-1949-present> (accessed 02 February 2020); CEIC, "Israel GNP," <https://www.ceicdata.com/en/indicator/israel/gross-national-product> (accessed 01 February 2020); CIA, "Israel: Current Economic Situation," 24 October 1974, 1, <https://www.cia.gov/library/readingroom/docs/CIA-RDP85T00875R001900030170-7.pdf> (accessed 01 February 2020).

The IDF's acquisition of high-tech equipment also stressed its personnel system. Maintaining and operating new electronic fire control and target acquisition systems required soldiers and officers with advanced training and education.¹⁵⁹¹ And the army was already competing for such talent with its sister services, like the air force, that typically received Israel's most technically skilled conscripts.¹⁵⁹² That said, the pool of technically skilled conscripts was larger in the early 1970s compared to previous decades, as the number of universities in Israel grew from three in 1950 to seven by 1967.¹⁵⁹³ And the number of Israelis with college degrees jumped from around 5,000 in 1950 to 35,000 in the early 1970s.¹⁵⁹⁴ During the same period, Israel expanded compulsory education from eight to ten years for all Israeli youth.¹⁵⁹⁵

Nevertheless, Israeli soldiers—even if highly educated—still needed substantial time to learn how to operate and maintain new equipment; and Israeli reservists struggled to find such time. Conscript units, for instance, conducted extensive combined arms exercises between 1967 and 1973 to learn how to operate and integrate its new APCs, tanks, and howitzers.¹⁵⁹⁶ But time constraints limited the ability of reservists to conduct similar exercises, denying them opportunities to keep

¹⁵⁹¹ Rothenberg, *The Anatomy of the Israeli Army*, 161.

¹⁵⁹² Ibid.

¹⁵⁹³ Jewish Virtual Library, "Israel Overview – Education," <https://www.jewishvirtuallibrary.org/the-israel-briefing-book-education> (accessed 03 February 2020).

¹⁵⁹⁴ Israeli Ministry of Foreign Affairs, "Higher Education in Israel," 01 December 2011, https://mfa.gov.il/MFA/AboutIsrael/Education/Pages/Higher_education_Israel-Selected_data_2010-11.aspx (accessed 25 January 2020).

¹⁵⁹⁵ Rubinstein, "6 Days Plus 3 Years."

¹⁵⁹⁶ Rothenberg, *The Anatomy of the Israeli Army*, 160.

up with changes in IDF tactics and technologies.¹⁵⁹⁷ Ultimately, this lack of training would undermine reserve readiness. For instance, a senior officer in the 679th Reserve Armor Brigade warned his brigade commander at the outset of the 1973 War that he felt unready for combat because he had limited to no opportunities to train on Israel's new tanks.¹⁵⁹⁸ But fortunately for the IDF, the 1973 War came at a point that its reserve readiness levels remained high.

In September 1970, Egyptian President Gamal Abdel Nasser died unexpectedly of a heart attack—just a month after the end of the War of Attrition. His successor—Anwar Sadat—concluded shortly after taking power that Egypt and its Syrian allies could conduct a limited attack to retake the Sinai and Golan.¹⁵⁹⁹ Sadat and his Syrian allies understood, however, that such an attack must unfold quickly with little warning, taking advantage of the IDF's thinly held defensive lines along the Suez and in the Golan Heights.¹⁶⁰⁰ Telegraphing an attack, in contrast, would enable the Israelis to mobilize their reserves and reinforce their defenses, as they had in 1956 and 1967.¹⁶⁰¹ Furthermore, the attack objectives would have to remain limited, as Sadat knew that the Israelis had recently built as many as ten nuclear weapons that they could employ if the conflict escalated.¹⁶⁰²

¹⁵⁹⁷ Ibid.

¹⁵⁹⁸ Orr, *These Are My Brothers*, 57.

¹⁵⁹⁹ Bregman, *Israel's Wars*, 109.

¹⁶⁰⁰ CIA, "The 1973 Arab-Israeli War," unnumbered introduction page.

¹⁶⁰¹ Rabinovich, *The Yom Kippur War*, location 2970 (26%).

¹⁶⁰² Van Creveld, *The Sword and the Olive*, 221.

At 1400 on 06 October—which fell on Yom Kippur, the holiest day of the year in Judaism—10 Egyptian and Syrian army divisions attacked into the Golan and across the Suez Canal, having disguised their military buildup as an exercise.¹⁶⁰³ As planned, the operation caught the Israelis by surprise, allowing Egyptian and Syrian forces to overrun the thinly held frontline defenses in the Golan and along the canal.¹⁶⁰⁴

Israeli intelligence services had observed the Egyptian and Syrian build up in the days leading up to the attack, but they—and CGS David Eleazar—concluded that the Arabs were highly unlikely to attack because they were bound to lose against a superior Israeli military.¹⁶⁰⁵ Consequently, the IDF did not mobilize their reserves, leaving the smaller conscript army and reservists from a second-tier reserve brigade (the Jerusalem Brigade) to hold the Bar Lev Line and absorb the attack that outnumbered them by about 5:1.¹⁶⁰⁶ Meanwhile, along the Golan Heights, a division-sized force of IDF conscripts with around 200 tanks faced a Syrian force of three infantry divisions and two armored divisions, including 1,000 tanks.¹⁶⁰⁷

There were, however, internal debates within the senior levels of the Israeli government on whether to mobilize the reserves in the days leading up to the war,

¹⁶⁰³ Rabinovich, *The Yom Kippur War*, location 170 (1%).

¹⁶⁰⁴ CIA, “The 1973 Arab-Israeli War,” 11.

¹⁶⁰⁵ Avraham Adan, *On the Banks of the Suez: An Israeli General's Personal Account of the Yom Kippur War* (New York: Presidio Press, reprint edition, 1991), 3-4.

¹⁶⁰⁶ Ibid., 107; Rabinovich, *The Yom Kippur War*, location 196 (2%).

¹⁶⁰⁷ DIA, “The Arab-Israeli Conflict;” David Rodman, “A Tale of Two Fronts: Israeli Military Performance During the Early Days of the 1973 Yom Kippur War,” *The Journal of Military History*, Vol. 82, Issue 1 (January 2018), 212.

given the buildup of Egyptian and Syrian forces along Israel's borders. But the top Israeli military intelligence official recommended against mobilization since it could cause severe damage to the economy, as occurred in 1967.¹⁶⁰⁸ Such damage was compounded by the fact that Israel had to utilize thousands of civilian trucks to mobilize and transport reservists to battle, causing significant disruptions to Israeli industries and public transportation.¹⁶⁰⁹ Prime Minister Golda Meir (1969-74) and Moshe Dayan, who served as her Minister of Defense, also feared mobilization would make Israel appear as the aggressor, possibly compromising support from the United States.¹⁶¹⁰ Senior IDF defense planners, moreover, had concluded before the war that conscripts could hold off an Egyptian attack in the Sinai on their own, providing time for the reserves to mobilize.¹⁶¹¹

But the initial counterattack by Israeli conscripts faced unexpectedly stiff resistance from Arab soldiers armed with new Soviet-made weapons. To improve their ability to defend against the IAF, the Arabs had purchased new Soviet-made surface-to-air missiles that inflicted heavy losses on Israeli aircraft seeking to provide support to embattled ground forces.¹⁶¹² On the Syrian front, such systems were responsible for downing as many as 35 IAF aircraft within the first 24 hours of the

¹⁶⁰⁸ Rabinovich, *The Yom Kippur War*, location 582 (5%).

¹⁶⁰⁹ Yuval Elizur, "Flaw Seen in Israel Mobilization," *The Washington Post*, 23 November 1973.

¹⁶¹⁰ CIA, "The 1973 Arab-Israeli War," 101; Rabinovich, *The Yom Kippur War*, location 1657 (15%).

¹⁶¹¹ *Ibid.*, location 462 (4%) [Kindle e-book].

¹⁶¹² CIA, "The 1973 Arab-Israeli War," unnumbered introduction page.

war.¹⁶¹³ Meanwhile, Egyptian infantry that crossed the canal in just two to three hours—far quicker than the Israelis anticipated—by using high-pressure water hoses to break through the obstacle belts of the Bar Lev Line.¹⁶¹⁴ Having breached the obstacles, forward elements of the Egyptian assault force seized high ground from the vastly outnumbered reservists of the Jerusalem Brigade.¹⁶¹⁵

From the high ground, Egyptian anti-tank teams fired thousands of Sagger ATGMs and rocket-propelled grenades against the Israeli counterattack, destroying or immobilizing 300 IDF tanks in just 36 hours.¹⁶¹⁶ Such losses essentially rendered the Israeli counterattack force, which came from the conscript army's Sinai division, combat ineffective. Making matters worse, the IDF counterattack was composed almost exclusively of tanks—a reflection of a “tank mania” that had overtaken the IDF since 1967.¹⁶¹⁷ In the Golan, the IDF suffered similarly high losses, as the Syrian onslaught nearly destroyed the 188th and the 7th Armored Brigades.¹⁶¹⁸

Fortunately, for the Israelis, their reserve forces mobilized quickly, allowing them to block and ultimately reverse the Arab gains. In total, four Israeli reserve divisions mobilized beginning at 0930 on 06 October—just hours before the attack—when Israeli intelligence services received a report from a reliable source that the

¹⁶¹³ DIA, “The Arab-Israeli Conflict.”

¹⁶¹⁴ CIA, “The 1973 Arab-Israeli War,” 77.

¹⁶¹⁵ Sharon, *Warrior*, 294.

¹⁶¹⁶ CIA, “The 1973 Arab-Israeli War,” 16.

¹⁶¹⁷ Sharon, *Warrior*, 304; CIA, “The 1973 Arab-Israeli War,” 16.

¹⁶¹⁸ Van Creveld, *The Sword and the Olive*, 229-31.

Egyptians and Syrians were indeed planning an attack that afternoon.¹⁶¹⁹ And because there was such limited time, reserve officers had to hastily organize their units for battle as they arrived at mobilization centers.¹⁶²⁰ Deputy Chief of Staff Israel Tal, moreover, ordered Israeli commanders to waste no time and rush units to the front as platoons and companies rather than wait for the brigade and divisions to form.¹⁶²¹

The speedy mobilization was aided by the fact many officers and NCOs had already staged equipment and began formulating attack plans several days in advance, as they had received warning several days earlier that war was possible.¹⁶²² Additionally, most reservists were at home for the holiday, which helped couriers find them.¹⁶²³ The lack of road traffic due to the holiday also allowed the reservists to drive quickly from their homes to mobilization centers.¹⁶²⁴

Within 48-72 hours, nearly the entire 36th, 210th, and 146th reserve armor divisions were deployed to the Golan, relieving the embattled conscripts.¹⁶²⁵ On the Sinai front, the 162nd and 143rd reserve armor divisions arrived even faster, reaching

¹⁶¹⁹ IDA, "Assessment of Weapons and Tactics Used in the October 1973 Middle East War," 30; Orr, *These Are My Brothers*, 47-48; Van Creveld, *The Sword and the Olive*, 224.

¹⁶²⁰ Adan, *On the Banks of the Suez*, 6-7, 13-15.

¹⁶²¹ Rothenberg, *The Anatomy of the Israeli Army*, 183.

¹⁶²² Orr, *These Are My Brothers*, 37-39, 42-44.

¹⁶²³ DIA, "Middle East Hostilities," 02 November 1973, <https://www.cia.gov/library/readingroom/docs/LOC-HAK-544-2-6-9.pdf> (accessed 01 January 2020).

¹⁶²⁴ Rabinovich, *The Yom Kippur War*, location 1017 (9%).

¹⁶²⁵ CIA, "The 1973 Arab-Israeli War," 63.

the front—albeit in a piecemeal fashion—within 24-36 hours.¹⁶²⁶ Some elements of these units entered the fight as soon as 12 hours after mobilization in some cases.¹⁶²⁷

But the first elements of reservists who deployed to the Golan and the Sinai suffered heavy losses until they gained a better understanding of the battlefield situation and new tactics and capabilities employed by the Syrians and Egyptians. The first Israeli reserve unit to reach the Golan heights—a tank company led by Uzi Mor—did not appreciate the gravity of the situation on the ground or that Syrian forces had essentially overrun the entirety of the heights.¹⁶²⁸ Mor’s company, consequently, stumbled into an ambush, losing most of its tanks.¹⁶²⁹ And in the Sinai, the Egyptians repulsed the initial counterattack by Avraham Adan’s reserve division—the 162nd—near the canal zone.¹⁶³⁰

Despite these initial setbacks, Adan’s and Sharon’s reserve divisions adapted.¹⁶³¹ The most important adjustment they made was reorganizing their forces into combined arms teams of tanks and infantry to suppress and destroy the Egyptian anti-tank teams.¹⁶³² They also benefited immensely Egypt’s decision to press into the

¹⁶²⁶ CIA, “The 1973 Arab-Israeli War,” 110.

¹⁶²⁷ CIA, “The 1973 Arab-Israeli War,” 110; Adan, *On the Banks of the Suez*, 13.

¹⁶²⁸ Rabinovich, *The Yom Kippur War*, loc 3578 (31%).

¹⁶²⁹ Ibid., loc 3553 (31%).

¹⁶³⁰ Ibid., loc 5005 (44%).

¹⁶³¹ CIA, “The 1973 Arab-Israeli War,” 18.

¹⁶³² Ibid.

Sinai beyond the protective shield of their SAM umbrella on 14 October.¹⁶³³ Once they did so, the character of the battle shifted into a more fluid and open tank-on-tank conflict—a situation the Israelis excelled at (the IDF had no formal doctrine or training for defense operations prior to 1973).¹⁶³⁴ Taking advantage of their superior gunnery, Israeli reserve tank crews destroyed 250 Egyptian tanks, while only losing 20 of their own.¹⁶³⁵ The Israelis, in turn, went on the offensive, crossing the canal on 15th October and encircling the Egyptian 3rd Army.¹⁶³⁶ With the Israelis advancing within artillery range of Damascus in the north and towards Cairo in the south, the Arabs agreed to a cease-fire on 24 October.¹⁶³⁷ The reserves had reversed the tide and won the war, albeit at a very high cost.

The success of the IDF reserve in 1973 was primarily the result of four factors. First, each of the reserve divisions had cadres of full-time personnel who were able to manage the quick mobilization and get the units to the front within hours.¹⁶³⁸ Second, each reserve division was led by veteran officers, like Ariel Sharon or Avraham Adan, who, as Moshe Dayan noted during the war, “were the

¹⁶³³ Shapira, *Israel*, location 7365 (59%).

¹⁶³⁴ IDA, “Assessment of Weapons and Tactics Used in the October 1973 Middle East War,” 7; CIA, “The 1973 Arab-Israeli War,” 101; Sakal, *Soldier in the Sinai*, 12-15.

¹⁶³⁵ Shapira, *Israel*, location 7365 (59%).

¹⁶³⁶ For an in-depth account of the Israeli crossing see, Amiram Ezov, “The Crossing Challenge: The Suez Canal Crossing by the Israel Defense Forces during the Yom Kippur of 1973,” *The Journal of Military History*, Vol. 82, Issue 2 (April 2018), 461-490.

¹⁶³⁷ CIA, “The 1973 Arab-Israeli War,” 101; Stuart Cohen, and Aharon Klieman, *Routledge Handbook on Israeli Security* (New York: Routledge, 2018), 53.

¹⁶³⁸ Orr, *These Are My Brothers*, 37-39, 42-44.

major league of the IDF...all of them experienced in combat.”¹⁶³⁹ In fact, the division commanded by Adan (162nd) in the Sinai was staffed by instructors from the IDF’s Armor School—the best tank crews in the IDF.¹⁶⁴⁰ Adan, moreover, had worked closely with his four subordinate brigade commanders previously. As he recalled in his memoirs, he and his brigade commanders “instinctively understood each other.”¹⁶⁴¹ Third, the IDF’s intensive reserve training program ensured that its tank crews excelled in gunnery, as they were often able to fire two or more accurate shots in the time it took their adversaries to fire one.¹⁶⁴² And fourth, reservists were led by experienced junior officers and NCOs who were trained for—and empowered to—seize the initiative in highly fluid and chaotic combat situations. With such training and experience, the Israeli reservists were generally able to outmaneuver and outshoot their adversaries, who, although improved since 1967, still struggled in open combat.

That said, the IDF reserve’s performance was uneven at times in the initial days of the war due to the highly condensed—and at times chaotic—mobilization. The full-time cadres manning reserve depots were caught off guard by the sudden mobilization of 200,000 reservists between 06 and 08 October, as they had assumed

¹⁶³⁹ Ibid., 58; CIA, “The 1973 Arab-Israeli War,” 83; Staff Writers, “Record Number of Reserve Generals Mobilized,” *The Jerusalem Post*, 16 October 1973, 2; Rabinovich, *The Yom Kippur War*, location 4741 (42%).

¹⁶⁴⁰ CIA, “The 1973 Arab-Israeli War,” 83.

¹⁶⁴¹ Adan, *On the Banks of the Suez*, 8.

¹⁶⁴² IDA, “Assessment of Weapons and Tactics Used in the October 1973 Middle East War,” 7; Rabinovich, *The Yom Kippur War*, location 3077 (27%).

at least a 48-hour warning ahead of time.¹⁶⁴³ Making matters worse, much of the cadre had little practice executing such a large-scale mobilization. Since 1967, the IDF had not conducted any large-scale reserve mobilization exercises due to the aforementioned operational and budgetary pressures.¹⁶⁴⁴

Some reservists, therefore, faced a chaotic situation when they arrived at their armories. In some cases, tanks and other armored vehicles had been stripped of their equipment, were in storage, or had not received proper maintenance.¹⁶⁴⁵ And some full-time cadre members had not received the mobilization orders and refused to issue equipment to reserve commanders when they arrived at their respective depots.¹⁶⁴⁶

As a result of these problems, several units had to depart for the front without critical equipment. One brigade in Ariel Sharon's division, for instance, departed without any half-tracks or mortars.¹⁶⁴⁷ Others lacked machine guns on their tanks to help suppress enemy infantry and anti-tank teams.¹⁶⁴⁸ Sharon's and Adan's divisions on the southern front also did not have enough heavy equipment transporters to carry tanks from mobilization centers to the front, forcing them to drive tanks under their own power over long distances, leading to higher instances of mechanical

¹⁶⁴³ Rabinovich, *The Yom Kippur War*, location 2694 (24%).

¹⁶⁴⁴ Sakal, *Soldier in the Sinai*, 97.

¹⁶⁴⁵ Rabinovich, *The Yom Kippur War*, location 2689 (24%); CIA, "The 1973 Arab-Israeli War," 110; Adan, *On the Banks of the Suez*, 8.

¹⁶⁴⁶ Rabinovich, *The Yom Kippur War*, location 7454 (65%).

¹⁶⁴⁷ Van Creveld, *The Sword and the Olive*, 241.

¹⁶⁴⁸ Rabinovich, *The Yom Kippur War*, location 2694 (24%).

breakdowns.¹⁶⁴⁹ The IDF also lacked enough trucks to move men and material to the front, forcing it once again to requisition civilian vehicles. In doing so, however, it brought the civilian economy to a near halt, as trucks used to load and offload equipment from ports and to move goods across Israel became scarce.¹⁶⁵⁰

The rushed mobilization also undermined unit cohesion and readiness. Speeding crews to the front forced officers to mix and match personnel as they arrived, likely reducing crew cohesion as they were fighting with men they did not know.¹⁶⁵¹ There was also no time for refresher training before entering the fight, as occurred in 1967.¹⁶⁵² Some officers and soldiers, therefore, had to learn how to fight with new equipment in combat, as opposed to having several days or weeks to train beforehand.¹⁶⁵³ And some reservists who had missed training due to other commitments had to relearn how to operate their equipment on the way to the front.¹⁶⁵⁴ Nevertheless, as a CIA report observed in 1975, the reserves were ultimately able to compensate for these issues because of their superior training and because they had the “flexibility, adaptability, and motivation” to deal with the chaos of the opening days of the war.¹⁶⁵⁵

¹⁶⁴⁹ Adan, *On the Banks of the Suez*, 10-11; Sharon, *Warrior*, 291.

¹⁶⁵⁰ Elizur, “Flaw Seen in Israel Mobilization.”

¹⁶⁵¹ CIA, “The 1973 Arab-Israeli War,” 110-11.

¹⁶⁵² Rabinovich, *The Yom Kippur War*, location 3584 (31%).

¹⁶⁵³ Orr, *These Are My Brothers*, 57.

¹⁶⁵⁴ Rabinovich, *The Yom Kippur War*, location 3553 (31%).

¹⁶⁵⁵ CIA, “The 1973 Arab-Israeli War,” 111.

In the end, the 1973 Yom Kippur War was a major success for the Israeli reserves, as they proved capable of mobilizing within less than 24 hours—with little to no forewarning—to defeat a determined and well-armed enemy that had the initiative. In fact, there are no other modern instances of a reserve force achieving such a feat. As previous chapters have shown, over the past century of warfare, reservists have usually had weeks, months, or even years of pre-mobilization training before entering such a major war. But the Israeli reserve proved that its veteran leaders and highly experienced reserve soldiers had the discipline, training, and confidence to transition within 12-24 hours from being civilians at home celebrating a holiday to highly effective soldiers.

The IDF's successes came at a high cost. 2,515 Israeli soldiers died in the Yom Kippur War.¹⁶⁵⁶ And among the dead were around 1,300 Israeli officers—losses that would deprive Israel of some of its best tactical commanders.¹⁶⁵⁷ Additionally, about a quarter of its tank inventory and a third of its combat aircraft were destroyed in the war.¹⁶⁵⁸ Such losses shook the IDF's confidence and revealed significant deficiencies in the combined arms capabilities of its army.¹⁶⁵⁹ Improved Arab air defense systems, meanwhile, called into question the IAF's ability to dominate the

¹⁶⁵⁶ Drew Middleton, "Israel's Forces Show New Vigor: Bolstered after 73 Battles," *The New York Times*, 27 July 1975, 12.

¹⁶⁵⁷ Gal, *Portrait of an Israeli Soldier*, 24; Middleton, "Israel's Forces Show New Vigor: Bolstered after 73 Battles."

¹⁶⁵⁸ CIA, "The 1973 Arab-Israeli War," 49; IDA, "Assessment of Weapons and Tactics Used in the October 1973 Middle East War," 6.

¹⁶⁵⁹ CIA, "The 1973 Arab-Israeli War," 107-08.

skies over future battlegrounds.¹⁶⁶⁰ The war also cost Israel about a years' worth of its GNP and sullied the IDF's public standing and the standing of its leaders—military and civilian—who were caught unprepared.¹⁶⁶¹ Such losses undermined Israel's confidence in its military might and help set the stage for significant changes to the structure and capabilities of the IDF over the next decade.

Section 8: Conclusion

Israel's first generation of military and political leaders inherited a formula for mitigating the reserve dilemma from the Yishuv. That is, they ensured part-time soldiers had veteran leadership and undertook intensive peacetime training—a system that, in many ways, resembled the German reserve system of the late 19th and early 20th century. Israel's founders and military pioneers improved upon that formula between the 1948 War of Independence and the 1967 War by ensuring all reservists had active duty experience gained as conscripts and that full-time officers oversaw their larger maneuver units and training exercises. And in doing so, they built one of history's most effective reserve forces, as evidenced by the performance of IDF reservists in the Six-Day War and the Yom Kippur War.

But to build such an effective army, Israeli leaders also invested heavily in improving the IDF's technical and combined arms capabilities in the 1950s and 1960. And these changes set the conditions for the IDF's transformation from a low-tech army of infantrymen into a high-tech mechanized force that increasingly depended on

¹⁶⁶⁰ IDA, "Assessment of Weapons and Tactics Used in the October 1973 Middle East War," 83.

¹⁶⁶¹ Van Creveld, *The Sword and the Olive*, 251-252; Adan, *On the Banks of the Suez*, vii.

long service technicians. Such developments improved the lethality and survivability of IDF ground units while giving it the ability to strike its enemies quicker, more accurately, and at longer-ranges; but they also raised the intellectual demands of soldiering for IDF conscripts and reservists, while generating substantially higher operating costs. These rising technical demands and associated costs—when combined with major changes to Israeli society and its threat environment—led to a gradual erosion in the capabilities of the IDF reserve since the end of the Yom Kippur War.

Chapter 5: The Decline of the IDF Army Reserve

“Currently, the army’s main areas are cyber warfare and precision warfare, for which reservists are less needed...”¹⁶⁶²

IDF Brigadier General (Res.) Shuki Ben-Anant, 2018

The training, personnel, and equipment standards of IDF reserve units declined sharply between the early 1980s and mid-2000s, leading to a reserve readiness crisis that continues today. This decline resulted from a combination of military, political, and socio-economic trends that unfolded in Israel and across the world during this period. Since the 1970s, Israel, like the United States and other major military powers, embraced a high-tech and high-skilled form of warfare to maintain a decisive qualitative advantage over its adversaries, while reducing risks to its personnel. In doing so, the IDF greatly improved its ability to conduct precision-strikes against terrorist groups, while enhancing its long-range attack capabilities to deter and respond to threats from Iran. This change in the Israeli way of war, however, drove up overhead costs, as the IDF had to acquire and maintain increasingly expensive military equipment while training and retaining the technical experts to operate such systems. At the same time, the Israeli defense budget and per capita spending power declined due to economic crises in the 1980s and early 2000s. Rising birth rates that increased annual conscription intakes and political pressures to reduce military spending further constrained IDF budgets.

¹⁶⁶² Hagai Amit, “The Israeli Army’s Big Windfall – Massive Cuts in Reserve Duty,” *Haaretz*, 29 October 2018, <https://www.haaretz.com/israel-news/business/.premium-the-army-s-big-windfall-massive-cuts-in-reserve-duty-1.6601182> (accessed 02 January 2020).

In response to these constraints, the IDF made drastic cuts to reserve training between the mid-1980s and mid-2000s, opting to focus resources on full-time conscript units and select reserve units. And political pressures from reservists themselves helped justify these cuts, as the burden of policing the Palestinian territories and the Israeli-Lebanese border proved too burdensome for many.

The IDF's decision to make drastic cuts to reserve training in the 1980s and 1990s had serious consequences. The standing IDF army—composed of its conscripts and professional cadre—was simply too small to meet Israeli national security requirements without army reservists, as became apparent during the Second Intifada and 2006 Lebanon War. But Israeli reservists performed poorly when thrust into combat missions during those two conflicts due to their limited training.¹⁶⁶³ And subsequent efforts by Israeli military leaders to address the weaknesses of the IDF reserve largely failed because of budgetary and legal constraints prevented them from increasing reservist training time and standards. In short, the IDF's transition to a high-tech and high-skilled force in the 1980s and 90s compromised the effectiveness of the IDF reserve—and by extension the entire army—for large-scale combat operations, like the 2006 Lebanon War, or protracted insurgencies, like the Second Intifada. This chapter examines the decisions and events that led to this situation and their significance to Israeli national security.

¹⁶⁶³ Other scholars have discussed this trend, including Van Creveld, *The Sword and the Olive*, 322, Yagil Levy, "The Decline of the Reservist Army," *Military and Strategic Affairs*, Volume 3, No. 3 (December 2011), 70, and Arie Perlinger, "The Changing Nature of the Israeli Reserve Forces," *Armed Forces & Society*, Vol. 37, No. 2 (December 2009), 232. This chapter expands on those arguments by showing how these changes to the IDF reserve were rooted in decisions and events that occurred in the 1970s and early 80s and how they have unfolded over the past decade. Additionally, this dissertation, contextualizes the decline of the IDF reserves by linking that development to the broader trends in military history explored in Chapter 1.

Section 1: The Roots of the Reserve Readiness Crisis

The roots of the IDF reserve readiness crisis can be traced back to decisions by Israeli military leaders to transform the army from one that sought to achieve victories through the superior motivation and training of its citizens in arms to one that sought victory through overwhelming advantages in technology. This shift in IDF warfighting philosophy began with the mass mechanization of the IDF in the 1960s, as the previous chapter showed, and accelerated in the 1970s and 80s as Israeli military leaders sought to address weaknesses exposed in the Yom Kippur War and to maintain decisive qualitative advantages over regional adversaries.

The Yom Kippur War revealed that new Soviet arms enabled Syria and Egypt to narrow the qualitative gap that long separated their armies from the IDF. Soviet-supplied weapons, such as anti-tank missiles, enabled Egypt to render entire Israeli brigades combat ineffective in less than two days, while exposing the limitations of Israeli combat doctrine that envisioned tanks conducting decisive maneuvers with limited infantry support. New surface-to-air missiles, meanwhile, inflicted devastating losses on the IAF, significantly reducing its ability to provide close air support to ground units. Such losses—combined with simultaneous surprise attacks on multiple fronts—almost destroyed the conscript army before Israel could fully mobilize its reserves and counterattack.

To prevent such a disaster from reoccurring, the IDF embarked on a decade-long buildup of forces, accelerated army mechanization, and developed greater combined arms capabilities to improve unit mobility, lethality, and survivability. As shown in Table 5.1, the IDF nearly doubled its maneuver brigades from 36 to 70 in

the decade following the war. And to improve commanders' ability to control a larger force, the Israelis organized brigades and divisions into permanent fighting corps that could wage offensive operations on two fronts simultaneously.¹⁶⁶⁴

The IDF expanded the army through several methods. It, for instance, convinced thousands of conscripts and reservists to volunteer for the IDF's corps of full-time professionals and by increasing the age men could serve in combat units from 39 to 44.¹⁶⁶⁵ Policy changes also allowed women and civilian contractors to take a more active role in combat support roles, freeing men to transfer to infantry or armor brigades.¹⁶⁶⁶ But this growth generated a massive spike in overhead costs, as it had to pay for thousands of new soldiers and contractors, as shown in Table 5.2.

Table 5.1: IDF Army Growth (1974 to 1984)¹⁶⁶⁷

Year	Active	Reserve	Full-Time	Combat Brigades (Active and Reserve)*	Israeli Population
1973	83,000	180,500	11,500	36	3,180,000
1974	110,000	250,000	15,000	36	3,422,000
1976	120,000	240,000	15,000	47	3,575,000
1978	120,000	237,000	18,000	43	3,738,000
1980	120,000	240,000	15,000	56	3,922,000
1982	110,000	315,000	15,000	70	4,064,000
1984	104,000	420,000	16,000	70	4,200,000

Includes: Armor, Mechanized Infantry, Infantry/Territorial, Parachute Infantry, Artillery Brigades

¹⁶⁶⁴ CIA, "Comments on Military Situation in the Mid East," October 1975, 1-2, <https://www.cia.gov/readingroom/docs/CIA-RDP86T00608R000700100005-0.pdf> (accessed 01 January 2020); Van Creveld, *The Sword and the Olive*, 254.

¹⁶⁶⁵ Joshua Brilliant, "Army to Reduce Reserve Duty," *The Jerusalem Post*, 01 March 1976, 2.

¹⁶⁶⁶ Van Creveld, *The Sword and the Olive*, 263; Staff Writers, "No Cuts in Reserve Duty as IDF Strength Grows," *The Jerusalem Post*, 27 April 1977, 1.

¹⁶⁶⁷ IISS, *Military Balance 1973*, 33; IISS, *Military Balance 1974*, 34; IISS, *Military Balance 1976*, 34; IISS, *Military Balance 1978*, 38; IISS, *Military Balance 1980*, 43; IISS *Military Balance 1982*, 56; IISS, *Military Balance 1984*, 63; CIA, "Israel's Military Edge Continues," June 1986, 2, <https://www.cia.gov/readingroom/docs/CIA-RDP86T01017R000302530001-7.pdf> (accessed 17 February 2020); Jewish Virtual Library, "Population of Israel," <https://www.jewishvirtuallibrary.org/population-of-israel-1948-present> (accessed 17 February 2020).

Table 5.2: IDF Personnel Costs (Civilian and Military) (1973 to 1984) (2017 USD) ¹⁶⁶⁸		
Year	Total Personnel Pay (in millions)	Defense Imports (in millions)
1972	.03	.07
1974	.08	.20
1976	.14	.40
1978	1.28	3.07
1980	1.62	2.87
1982	22.15	11.24
1984	112.72	593.99

Overhead costs also rose during this period as the IDF acquired thousands of tanks and APCs and hundreds of new aircraft and as more conscripts enter the ranks, as shown in Tables 5.1 and 5.3.¹⁶⁶⁹ The number of tanks in the IDF arsenal increased by around 1,000 between 1973 and 1983. And the number of APCs (mostly U.S.-made M-113s) increased from only around 500 in 1973 to over 10,000 a decade later.¹⁶⁷⁰ By acquiring so many APCs, the IDF could ensure that infantrymen had the mobility to maneuver alongside tanks, providing critical support for suppressing anti-tank teams and clearing enemies from built up areas or restrictive terrain. And to enhance its ability to provide close air support to ground forces, the IDF purchased an additional 150 combat aircraft—including new U.S.-made F-15s and F-16s—between 1973 and 1980. These new aircraft, however, came with a hefty price of around \$24 million per airframe.¹⁶⁷¹

¹⁶⁶⁸ Israel Central Bureau of Statistics, “Defence Expenditure in Israel,” July 2017, 29, https://www.cbs.gov.il/he/publications/DocLib/2019/1758/e_print.pdf (accessed 02 April 2020).

¹⁶⁶⁹ CIA, “Israel’s Case for US Assistance,” March 1975, 3, <https://www.cia.gov/library/readingroom/docs/CIA-RDP86T00608R000500160002-9.pdf> (accessed 01 January 2020).

¹⁶⁷⁰ Kenneth Brower, *The Israel Defense Forces* (Ramat Gan: The Begin-Sadat Center, 2018), 13-14.

¹⁶⁷¹ Number in 1977 USD. Staff Writers, “Israel air force said seeking to buy more F-15 planes,” *The Jerusalem Post*, 04 December 1977.

This arms buildup stressed the defense budget and economy, as Israeli spending on defense imports rapidly increased, as shown in Table 5.2 above. Such stresses were particularly acute in the first half of the 1970s, when defense spending as a percentage of GNP rose from about 15 to 20 percent to over 30 percent.¹⁶⁷² Much of that spending, however, focused on replacing equipment destroyed or damaged in the 1973 war.¹⁶⁷³ Nevertheless, as Table 5.4 shows, spending continued to rise throughout the decade as the IDF acquired new equipment, grew its ranks, and improved personnel pay and benefits. That said, concurrent increases in U.S. foreign aid and military assistance helped offset some costs.¹⁶⁷⁴

Table 5.3: Growth in IDF Combat Systems (1973-85) ¹⁶⁷⁵				
	Tanks	APCs	Artillery*	Combat Aircraft
1973	2,119	518	412	354
1975	2,700	3,300	600	461
1980	3,050	4,500	728	538
1985	3,900	10,600	1,200	500
*Number includes self-propelled and towed howitzers; does not include mortars.				

Despite the increase in U.S. assistance, the Israeli gap in the balance of payments quadrupled between 1972 and 1981 while inflation rose rapidly.¹⁶⁷⁶ The death of so many men during the 1973 War also had second order economic effects. As the President of the Manufacturers Association of Israel lamented in 1974, “A

¹⁶⁷² CIA, “Israel’s Case for US Assistance,” 2-3.

¹⁶⁷³ Ibid., 3-4.

¹⁶⁷⁴ Van Creveld, *The Sword and the Olive*, 252.

¹⁶⁷⁵ IDA, “Assessment of Weapons and Tactics Used in the October 1973 Middle East War,” 10, 80; CIA, “The 1973 Arab-Israeli War,” 28; IISS, *Military Balance 1975* 34; IISS, *Military Balance 1985* 43; CIA, “Israel’s Military Edge Continues,” 1-2; Yoel Marcus, “Israel’s Self-Inflicted Wounds,” *The New York Times*, 24 April 1977, SM7.

¹⁶⁷⁶ Van Creveld, *The Sword and the Olive*, 252.

thousand to fifteen hundred key people are really missing today for the manufacturers.”¹⁶⁷⁷ The prolonged mobilization of reservists from mid-1973 and throughout 1974 only added to the burden, especially as many industries had only planned to have such a high percentage of its workforce away for a month or less of reserve service.¹⁶⁷⁸ The mobilization of about 80 percent of the country’s trucks during the war also reduced industrial production by 40 percent and construction projects by as much as 80 percent.¹⁶⁷⁹

Table 5.4: Israel Defense Expenditures (2018 USD) ¹⁶⁸⁰				
Year	Defense Spending as Percent of GDP	Israeli GDP (billions)	Estimated Expenditure (billions)	U.S. Aid (billions)
1970	23.45	\$7.05	\$1.26	\$.094
1975	30.46	\$15.36	\$3.76	\$.803
1980	18.92	\$24.17	\$4.12	\$5.146

In short, IDF transformation and other associated impacts of the 1973 War created budgetary and economic stresses that, as will be discussed below, persisted for decades. And to relieve these stresses, Israeli defense policymakers had to make difficult choices regarding reserve policy. Those choices combined with broader

¹⁶⁷⁷ Henry Kamm, “Israel, Used to Surviving Must Now Face Long-Term Challenges,” *The New York Times*, 02 February 1974, 3.

¹⁶⁷⁸ Ibid.

¹⁶⁷⁹ Ibid.

¹⁶⁸⁰ World Bank, “Military expenditure (% of GDP) – Israel,” <https://data.worldbank.org/indicator/MS.MIL.XPND.GD.ZS?end=2018&locations=IL&start=1960&view=chart> (accessed 03 January 2020); World Bank, “Israel GDP,” <https://data.worldbank.org/country/israel?view=chart> (accessed 03 January 2020); Jewish Virtual Library, “U.S. Foreign Aid to Israel,” <https://www.jewishvirtuallibrary.org/total-u-s-foreign-aid-to-israel-1949-present> (accessed 23 February 2020).

changes to the Israeli threat environment and socio-economic landscape, however, inadvertently undermined reserve readiness.

The reliability of the IDF reserve declined following the 1973 War as it struggled to find time and resources to keep up with changes to Israeli military doctrine and warfighting technologies. In the immediate aftermath of the war, the reserve had limited time to train because between 150,000 to 200,000 reservists remained on active duty for four months or more as Israel feared a resumption of hostilities.¹⁶⁸¹ Some—particularly technicians activated to repair damaged equipment—even served as many as 200 days on active duty between 1973 and 1974.¹⁶⁸²

But Israel could not afford to keep the reserve activated so long, due to stresses on the civilian economy and the fact that some reservists were losing their jobs for being away so long.¹⁶⁸³ Unlike in the United States, Israeli reservists at the time had no real protections from being fired or punished because of reserve duty. Thus, by the end of 1974, the IDF released most reservists from active duty.

That said, IDF leadership decided that training for reservists had to increase to keep up with the aforementioned changes to the army's tactics and technologies. As CGS Mordechai Gur concluded in 1978, "in the past it was sufficient that the

¹⁶⁸¹ Moshe Brilliant, "Israel's Economy Burdened by War," *The New York Times*, 27 January 1974, 158.

¹⁶⁸² Staff Writers, "Employers Must Rehire Reservist," *The Jerusalem Post*, 04 August 1974, 3.

¹⁶⁸³ Ibid.; Brilliant, "Israel's Economy Burdened by War;" 158; Kamm, "Israel, Used to Surviving Must Now Face Long-Term Challenges."

reservist was motivated and proficient in basic fighting skills. Today...this is no longer enough in view of the great complexity of modern warfare.”¹⁶⁸⁴ Reserve training, therefore, skyrocketed to around 75 to 80 days a year in the mid-1970s for combat units, as shown in Table 5.5.¹⁶⁸⁵ At the same time, the IDF created new combined arms training facilities where reservists—under the supervision of full-time cadres—conducted maneuvers utilizing new IDF warfighting technologies and tactics.¹⁶⁸⁶

Table 5.5: Average Training Days for Israeli Combat Reservists ¹⁶⁸⁷	
Year	Average Reserve Training Days Per Year
1965	30 to 45
1970	30 to 45
1975	75 to 80
1980	10 to 45

These new training requirements proved untenable. By the end of the decade, the CGS and IDF joint staff realized that 75 to 80 training days per year was unsustainable due to the negative impact on the civilian economy and complaints from reservists.¹⁶⁸⁸ Additionally, keeping reservists activated so long drove up overhead costs, as the IDF had to feed, house, and pay for them when on active duty.

¹⁶⁸⁴ Staff Writers, “Gur Outlines Challenge of Training our Soldier,” *The Jerusalem Post*, 26 January 1978, 2.

¹⁶⁸⁵ CIA, “Comments on Military Situation in the Mid East,” 1-2.

¹⁶⁸⁶ Staff Writers, “New Training Facility for Infantrymen, Paratroops,” *The Jerusalem Post*, 29 July 1976, 2.

¹⁶⁸⁷ Williams, *Israeli Defense Forces: A People’s Army*, 12; Love, “Israel’s Forces Outweigh Arabs,” 14; CIA, “Comments on Military Situation in the Mid East,” 1, 2; Staff Writers, “No Cuts in Reserve Duty as IDF Strength Grows.”

¹⁶⁸⁸ CIA, “Comments on Military Situation in the Mid East,” 1-2; Staff Writers, “Army Speeds up Armament, Training Projects,” *The Jerusalem Post*, 01 April 1974, 1.

¹⁶⁸⁹ Those costs also grew because Israel increased reserve pay and benefits in the mid-1970s by around \$27 to \$40 a month per activated reservist.¹⁶⁹⁰ Faced with these rising costs and complaints, the IDF relaxed training requirements to around 10 to 45 days a year by the end of the decade.¹⁶⁹¹

In addition to training improvements, the IDF worked to enhance the speed and efficiency of the reserve mobilization process. As discussed in the previous chapter, mobilization in 1973 was hampered by the fact many units lacked enough vehicles to move personnel and equipment from depots to the front in a timely manner. To address this issue, the IDF acquired 2,500 new trucks for the army reserve.¹⁶⁹² It also developed a digital equipment accountability and maintenance system that helped units keep better track of vehicle readiness.¹⁶⁹³

During this period, the IDF reserve and active components also confronted several personnel challenges that had significant implications for unit readiness. For instance, the IDF faced shortages of technicians to operate and maintain new weapons and support systems.¹⁶⁹⁴ One reason for this was that Israel's improving civilian economic sectors—which had risen to the standards of Western countries by the late

¹⁶⁸⁹ Staff Writers, "Army to Pay Grants to Reservists," *The Jerusalem Post*, 05 September 1974, 3.

¹⁶⁹⁰ Staff Writers, "Army Speeds up Armament, Training Projects," 1; Staff Writers, "Army to Pay Grants to Reservists," 3.

¹⁶⁹¹ Staff Writers, "No Cuts in Reserve Duty as IDF Strength Grows."

¹⁶⁹² Elizur, "Flaw Seen in Israel Mobilization."

¹⁶⁹³ Van Creveld, *The Sword and the Olive*, 258.

¹⁶⁹⁴ Staff Writers, "No Cuts in Reserve Duty as IDF Strength Grows."

1970s—attracted talent away from the military.¹⁶⁹⁵ The IDF compensated for this problem by diverting some recruits with technical backgrounds from the air force to the army, but shortages persisted.¹⁶⁹⁶

The IDF also struggled in the late 1970s to staff its enlarged conscript army and reserve component. To address this issue, it reduced entry standards for conscripts, allowing waivers to individuals with medical issues or criminal backgrounds.¹⁶⁹⁷ And it promoted officers faster than before; but in doing so, it reduced the time officers had to learn their jobs.¹⁶⁹⁸ These trends almost certainly diluted the quality of the enlisted and officer ranks in the active and reserve force, as units were led by less experienced officers and staffed with a higher percentage of personnel with medical or legal issues.

The reserve component also confronted questions regarding its political reliability during this period. In 1977, a new right-wing political party, the Likud, was elected, overturning decades of rule by the left-wing Labor party, whose reputation had been sullied by the 1973 War.¹⁶⁹⁹ And the Likud charted a more aggressive policy path in regards to new Israeli settlements inside Palestinian territories seized in 1967—a policy that generated pushback from some reservists

¹⁶⁹⁵ CIA, “The Arab-Israeli Military Balance: Impact of the Egyptian-Israeli Peace Treaty,” 16 October 1979, 2, <https://www.cia.gov/readingroom/docs/CIA-RDP83R00184R002600290006-7.pdf> (accessed 01 January 2021).

¹⁶⁹⁶ Staff Writers, “No Cuts in Reserve Duty as IDF Strength Grows.”

¹⁶⁹⁷ Brilliant, “Army to Reduce Reserve Duty.”

¹⁶⁹⁸ Van Creveld, *The Sword and the Olive*, 262.

¹⁶⁹⁹ Ibid., 259; Shapira, *Israel*, location 7442 (60%).

who, like many young Israelis at the time, were becoming more outspoken politically.¹⁷⁰⁰ The establishment and expansion of settlements, meanwhile, forced the IDF to activate more reservists to protect settlers from attack during the 1980s and 90s.

Reservists were becoming politically active as early as 1973, when some formed a group to protest the government's mishandling of the Yom Kippur War.¹⁷⁰¹ Five years later, a group of 100 reservists even refused to serve in the West Bank, citing their disgust over the "annexationist aims" of Prime Minister Menachem Begin's (1977-83) government.¹⁷⁰² This anti-settlement activism was part of a larger movement—known as Peace Now—that rose to national and international prominence in the late 1970s and 80s, as the anti-war and anti-establishment activism of Western societies came to Israel.¹⁷⁰³

These changes to the Israeli political and social environment also affected other aspects of the IDF. Israeli youth, for instance, started questioning government policies in general and defense policies in particular. One Israeli student in 1970 complained to a *New York Times* reporter how "The war and army exhaust all our energy" and that Israel was "oblivious to everything else..."¹⁷⁰⁴ Israeli youth were also becoming more independent-minded, as many turned away from the collectivist

¹⁷⁰⁰ Van Creveld, *The Sword and the Olive*, 259-60.

¹⁷⁰¹ Hirsch Goodman, "Reservists Protest State of the Nation," *The Jerusalem Post*, 21 March 1974, 8.

¹⁷⁰² Staff Writers, "Reservists Unable to Guard Settlements in Territories," *The Jerusalem Post*, 23 August 1978, 2.

¹⁷⁰³ Shapira, *Israel*, location 8157 (66%).

kibbutz lifestyle, favoring more individualistic and capitalistic worldviews.¹⁷⁰⁵

Television media—which became widespread in Israel in the early 1970s—helped drive these developments by exposing Israeli society to the counter-cultural currents and consumerism of Western popular culture at the time.¹⁷⁰⁶ As a consequence of these developments, large segments of Israeli society became more critical of defense policies—such as high spending on military programs—and many young Israelis questioned the value of their active and reserve service, as became apparent during the 1980s and 90s.

Combined, these changes to the IDF security, social, and political environment produced five challenges for maintaining reserve readiness and relevancy by 1980:

1. Reservists were becoming outspoken critics of Israeli security policy, making them a potential political liability for right-wing policymakers who came to power following the 1977 national elections.
2. IDF efforts to grow its forces by reducing entry, training and promotion standards diluted the quality of the reserve officers and NCO corps. Additionally, over a thousand IDF officers and NCOs perished in the 1973 War, depriving reserve units of their veteran leadership.
3. The IDF's continued transition to a technical army posed challenges for reservists, whose time to train was declining in the late 1970s.

¹⁷⁰⁵ CIA, "Israel: Problems Behind the Battle Lines," 4; Rubinstein, "6 Days Plus 3 Years;" Shapira, *Israel*, location 7591 (61%).

¹⁷⁰⁶ Ibid.

4. Budgetary constraints associated with the IDF's arms build-up—and investments in high tech weaponry and high-skilled technicians—following the 1973 War restricted the military's ability to increase reserve training periods.
5. High operational tempos associated with policing the Palestinian territories and maintaining robust defenses to deter a renewed effort by Egypt or Syria to re-capture the Sinai or Golan deprived reserve units of training time.

All these challenges persisted and, in some cases, worsened in the next two decades, laying the foundations for a reserve readiness crisis by the end of the century.

Section 2: Lebanon, the Intifada, and the Start of the Decline

During the late 1970s and 80s, the Israeli security environment underwent radical change. The threat of large-scale conventional war declined substantially as Egypt made peace with Israel as part of a deal to regain control over the Sinai.¹⁷⁰⁷ Syria, meanwhile, had a reduced ability to threaten Israel without Egyptian support, especially following its intervention in Lebanon during the 1980s which consumed much of its military resources.¹⁷⁰⁸ Israel also gained greater protection from the United States as part of the 1981 Agreement for Strategic Cooperation. That agreement increased joint intelligence sharing, military exercises, and weapons

¹⁷⁰⁷ CIA, "The Arab-Israeli Military Balance: Impact of the Egyptian-Israeli Peace Treaty," 1-2.

¹⁷⁰⁸ Ibid.

development projects with the United States, essentially creating Israel's first strategic military alliance.¹⁷⁰⁹

That said, Israel faced new challenges as its armed forces became bogged down in an indecisive and unpopular war in Lebanon and as the Palestinians began to resist Israeli rule over Gaza and the West Bank more actively. Additionally, Iran—a former ally of Israel—became an Israeli adversary following its 1979 revolution. Under the dictatorship of Ayatollah Ruhollah Khomeini, Iran established a regional network of allies—the so-called Axis of Resistance—to expand Iranian influence across the Arab world. And as part of that effort, Iran launched a campaign to attack Israel through proxy groups, like Lebanese Hizballah, and to hijack the broader Arab-Israeli conflict for its own purposes.

This new security environment confounded and challenged the IDF and accelerated the decline of the IDF reserves' quality and political reliability. That decline became apparent during Israel's long war in southern Lebanon (1982 to 2000).

The road to Israel's invasion of south Lebanon can be traced back to the late 1960s and early 1970s. During that period, Palestinian militants from the Palestinian Liberation Organization (PLO)—which was founded in 1964—launched dozens of attacks into northern Israel from bases inside Lebanon—where they had moved following their violent expulsion from Jordan in 1970.¹⁷¹⁰ Periodically, the Israelis

¹⁷⁰⁹ Van Creveld, *The Sword and the Olive*, 307.

¹⁷¹⁰ Ibid., 285; Shapira, *Israel*, location 7126 (57%); Cohen, *Routledge Handbook on Israeli Security*, 51.

retaliated with limited air attacks and ground raids.¹⁷¹¹ But the situation worsened in the mid-1970s as Lebanon descended into civil war, providing room for the PLO to expand its foothold. Syria also took advantage of the chaos inside Lebanon, where it deployed military forces in 1976, opening a potential second front in its long conflict with Israel.

By 1982, the Israeli government—with an aggressive new defense minister Ariel Sharon—lost its patience.¹⁷¹² That summer, the IDF launched a massive invasion of southern Lebanon in retaliation for a string of Palestinian terrorist attacks, including the assassination of the Israeli ambassador to London.¹⁷¹³ The invasion force consisted of nine divisions, including thousands of reservists.¹⁷¹⁴ However, conscript units spearheaded the attack, while reservists played a supporting role.¹⁷¹⁵ The goal was to destroy the PLO bases inside Lebanon, install a friendly Christian government in Beirut, and reduce Syria's influence and presence along the Israeli border.¹⁷¹⁶

¹⁷¹¹ Van Creveld, *The Sword and the Olive*, 285.

¹⁷¹² Ibid., 289.

¹⁷¹³ CIA, "Military Lessons Learned by Israel and Syria from the War in Lebanon," May 1984, 5, <https://www.cia.gov/readingroom/document/cia-rdp87t00217r000700080010-3> (accessed 04 April 2021).

¹⁷¹⁴ M. Thomas Davis, *40km Into Lebanon: Israel's 1982 Invasion* (Washington, DC: NDU Press, 1987), 77-79; Van Creveld, *The Sword and the Olive*, 291; Henry Kamm, "Israel Preoccupied with Men at War," *The New York Times*, 22 June 1982, A10.

¹⁷¹⁵ IDF, "The First Lebanon War," *The Israel Defense Force*, <https://www.idf.il/en/minisites/wars-and-operations/first-lebanon-war-1982/> (accessed 14 March 2020). For an account of an Israeli reservist in support role, see Dov Yermiya, *My War Diary: Lebanon, June 5 – July 1, 1982* (Jerusalem: Mifras, 1983).

¹⁷¹⁶ CIA, "Military Lessons Learned by Israel and Syria from the War in Lebanon," 5.

Initially, the invasion accomplished most of its objectives, albeit with some setbacks. The IDF succeeded in isolating the PLO inside Beirut within six days of the ground assault. And, later, with U.S. diplomatic support, the Israelis forced the PLO to abandon Lebanon altogether.¹⁷¹⁷ Additionally, the IDF substantially damaged Syrian military units deployed inside Lebanon during a large battle in the Beqaa Valley along the Syrian-Lebanese border.¹⁷¹⁸ During the fighting, the Israelis also tested their new domestically produced Merkava tank, which outperformed Syria's new Soviet-made T-72 tank.¹⁷¹⁹ The IAF, meanwhile, downed upwards of 100 Syrian aircraft, at the cost of just one Israeli fighter.¹⁷²⁰

But the invasion unfolded slower than anticipated, as the mountainous terrain and underdeveloped road networks of southern Lebanon channeled Israeli units into narrow and predictable avenues of advance.¹⁷²¹ That slow advance, in turn, allowed many PLO fighters to flee northwards into refugee camps inside Beirut, where Israel would experience one of its most significant setbacks of the war.¹⁷²²

In September 1982, Israel's main Lebanese ally—the Christian leader Bashir Gemayel—was assassinated by Syrian intelligence agents, ruining Israeli plan to

¹⁷¹⁷ Van Creveld, *The Sword and the Olive*, 297.

¹⁷¹⁸ CIA, "Escalation of the Israeli-Syrian Confrontation and the Soviet Reaction," 09 June 1982, 2, <https://www.cia.gov/readingroom/docs/CIA-RDP83B01027R000100040014-8.pdf> (accessed 04 April 2021).

¹⁷¹⁹ Van Creveld, *The Sword and the Olive*, 296.

¹⁷²⁰ *Ibid.*, 295.

¹⁷²¹ *Ibid.*, 292.

¹⁷²² *Ibid.*

install a friendly government in Beirut and fanning the flames of civil war.¹⁷²³ Around the same time, the IDF suffered a major—and lasting—blow to its reputation in an operation in the Sabra and Shatila refugee camps in Beirut. During that operation, IDF-backed Christian militants pillaged the camps, raping, wounding, and killing thousands of civilians.¹⁷²⁴ Such incidents combined with rising Israeli casualties caused the Israeli public—and world opinion—to sour on the Lebanon operation.¹⁷²⁵ Facing a mounting domestic and international backlash, Israel withdrew from the Beirut area a year later to more defensible positions in southern Lebanon in September 1983.

Once in southern Lebanon, the IDF confronted a growing Shia militant insurgency that eventually included the new Iranian-backed Lebanese Hizballah group.¹⁷²⁶ To combat these groups, the Israelis kept around 9,500 soldiers—many of whom were reservists—inside Lebanon between 1983 and 1985.¹⁷²⁷ But by late 1984, a new Israeli government led by Shimon Peres (1984-86) decided to extricate the IDF from the Lebanese morass, having lost up to 1,200 soldiers killed in action.¹⁷²⁸ The

¹⁷²³ Ibid., 297.

¹⁷²⁴ Ibid., 298.

¹⁷²⁵ Ibid.

¹⁷²⁶ Ibid., 302-05.

¹⁷²⁷ CIA, “Israel Preparing Withdrawal Options,” 17 October 1984, 2, <https://www.cia.gov/readingroom/document/cia-rdp85t00287r001302230001-2> (accessed 29 February 2021).

¹⁷²⁸ Israeli Ministry of Foreign Affairs, “The Lebanon War,” undated 2013, <https://mfa.gov.il/mfa/aboutisrael/history/pages/operation%20peace%20for%20galilee%20-%201982.aspx> (accessed 12 March 2020).

Israelis completed their withdraw by 1985, retaining a small strip of land—about 10 km wide—as a security buffer inside Lebanese territory.¹⁷²⁹

Keeping thousands of reservists deployed inside Lebanon between 1982 to 1985 had multiple second-order economic, military, and political effects that had important implications for reserve readiness. Economically, the war cost Israel about \$2 to \$5 billion between 1982 and 1985.¹⁷³⁰ And the activation of reservists disrupted Israeli industries and transportation, albeit not to the same degree as in 1973. In 1982, for instance, economic production in Israel dropped around 5 percent due to the prolonged activation of reservists.¹⁷³¹ Public transportation was also disrupted that summer, as the IDF requisitioned hundreds of busses to shuttle reservists from depots to assembly areas near the Lebanese border.¹⁷³² Such economic hardship contributed to Israel's steep economic decline in the early 1980s that convinced the government to curtail military spending in general and reserve funding in particular.¹⁷³³

The prolonged deployment to Lebanon also harmed reservist morale, causing disciplinary problems to spike, and reduced opportunities for training. In terms of discipline, thousands of Israeli reservists protested their involvement in the war, which was unpopular among many Israelis due to the perception it was a war of

¹⁷²⁹ Van Creveld, *The Sword and the Olive*, 303.

¹⁷³⁰ *Ibid.*, 302.

¹⁷³¹ Eric Pace, "Israel is Raising Taxes to Cover Costs of War," *The New York Times*, 14 June 1982, A12; Henry Kamm, "Israel Preoccupied with Men at War," *The New York Times*, 22 June 1982, A10.

¹⁷³² *Ibid.*

¹⁷³³ Joshua Brilliant, "Training Hours Down in IDF Due to Budget Cut," *The Jerusalem Post*, 15 April 1984, 2.

choice.¹⁷³⁴ Upwards of 200 reservists outright refused to serve in the summer of 1982, often incurring around a month of imprisonment as punishment.¹⁷³⁵ Over the next three years, thousands more signed petitions against the war and participated in mass anti-war protests as part of the “There is a Limit” movement run by reservists.¹⁷³⁶ And as many as 10 percent of reservists requested to be excused from service in Lebanon, citing medical, work, or family issues.¹⁷³⁷ Work issues were particularly problematic for reservists, as many lost their civilian jobs for being away so long. As the head of the IDF Manpower division noted in 1985, “Many workplaces find it difficult to abide by a reserve paratrooper who is called up for 60 days a year, so they find ways to get rid of him.”¹⁷³⁸

Given these morale and discipline issues, some senior Israeli defense officials began questioning the reliability of reserve formations. For instance, Defense Minister Sharon decided not to commit one reserve brigade to combat in the summer of 1982 due to fear that its men would refuse to fight.¹⁷³⁹ Indeed, some reservists later admitted in interviews that their will to fight was very low. One reserve

¹⁷³⁴ Drew Middleton, “Israel’s Defense as Good as Ever?” *The New York Times*, 19 May 1985, A60.

¹⁷³⁵ CIA, “Military Lessons Learned by Israel and Syria from the War in Lebanon,” 3; Staff Writers, “Reservist Jailed for Not Serving in Lebanon,” *The Jerusalem Post*, 22 October 1982, 2.

¹⁷³⁶ CIA, “The Israel Defense Forces After the War in Lebanon,” April 1986, 1, <https://www.cia.gov/readingroom/docs/CIA-RDP88T00096R000200180002-0.pdf> (accessed 02 April 2021); David Shipler, “Israel’s Longest Year,” *The New York Times*, 07 June 1983, A2.

¹⁷³⁷ Joshua Brilliant, “Yaron Wants Law to Protect Reservists’ Job Security,” *The Jerusalem Post*, 10 January 1985, 2.

¹⁷³⁸ *Ibid.*

¹⁷³⁹ CIA, “The Israel Defense Forces After the War in Lebanon,” 1.

sergeant recalled how the “The main idea [during operations in Lebanon] was to get out of that place alive.”¹⁷⁴⁰ And to do so, they avoided mounting aggressive patrols in their assigned sectors.¹⁷⁴¹

The prolonged deployment of reservists also undermined training. Reserve units cycled into Lebanon for one to three-month deployments between 1982 and 1985.¹⁷⁴² But spending multiple months in Lebanon deprived reservists of opportunities to train, as a 1985 IDF Comptroller report pointed out.¹⁷⁴³ Operational experience could compensate somewhat; however, the majority of operations conducted by reservists in the final two years of the war focused on patrols and base defense against low-tech militant groups.¹⁷⁴⁴ Reservists, therefore, had few opportunities to learn and practice the IDF’s increasingly high-tech and high-skilled military doctrine for conventional warfare.

Despite the fact the IDF was focused on counterinsurgency operations in the early 1980s, it continued to focus its training, equipment, and personnel policies on developing units for large-scale combat operations against the conventional forces of a state adversary.¹⁷⁴⁵

¹⁷⁴⁰ William Claiborne, “Israel Studies Lessons of Lebanon War,” *The Washington Post*, 31 March 1986, A18.

¹⁷⁴¹ Ibid.

¹⁷⁴² Gal, *Portrait of an Israeli Soldier*, 44; Hirsh Goodman, “Insight into Reorganization: Israel Defense Forces,” *The Jerusalem Post*, 31 May 1983, 7.

¹⁷⁴³ Hirsh Goodman, “Unlearned Lessons: Israel Defence Forces,” *The Jerusalem Post*, 14 May 1984, 7.

¹⁷⁴⁴ Claiborne, “Israel Studies Lessons of Lebanon War,” A16.

¹⁷⁴⁵ CIA, “The Israel Defense Forces After the War in Lebanon,” iv.

That qualitative advantage had been particularly hard to maintain because of substantial spending cuts. As shown in Table 5.6, Israeli defense spending as a percentage of GDP declined during the first half of the decade. And the war in Lebanon forced the defense ministry to reduce spending by \$48 million in 1983, \$485 million in 1984, and \$661 million in 1985, scuttling IDF force modernization plans at the time.¹⁷⁴⁶ Such cuts were necessary because of Israel's poor economic situation in the early to mid-1980s, when inflation reached triple digits and unemployment rates doubled.¹⁷⁴⁷

Year	Defense Spending as Percent of GDP	Israeli GDP (billions)	Estimated Expenditure (billions)	U.S. Aid (billions)
1982	18.38	27.83	5.1	2.2
1984	16.18	29.16	4.7	2.6
1986	14.76	34.09	5.0	3.6
1988	17.53	50.09	7.6	3.0
1990	13.96	59.01	7.3	3.4

Reduced defense spending hit the reserves particularly hard.¹⁷⁴⁹ To cut operations and maintenance costs, the IDF reduced reserve personnel strength by lowering the maximum age for drilling in a combat unit from 54 to 50 and by

¹⁷⁴⁶ Ibid., 3.

¹⁷⁴⁷ CIA, "Israel: Economic Problems Facing the Shamir Government," December 1983, 1, <https://www.cia.gov/library/readingroom/docs/CIA-RDP84S00927R000200070002-4.pdf> (accessed 29 February 2020); Israel Ministry of Foreign Affairs, "About Israel: Israel Economy," undated <https://mfa.gov.il/mfa/aboutisrael/economy/pages/economy-%20sectors%20of%20the%20economy.aspx> (accessed 02 February 2020).

¹⁷⁴⁸ World Bank, "Military expenditure (% of GDP) – Israel," World Bank, "Israel GDP," <https://data.worldbank.org/country/israel?view=chart> (accessed 03 January 2020); World Bank, Military expenditure (current USD); Jewish Virtual Library, "U.S. Foreign Aid to Israel," <https://www.jewishvirtuallibrary.org/total-u-s-foreign-aid-to-israel-1949-present> (accessed 23 February 2020).

¹⁷⁴⁹ Middleton, "Israel's Defense as Good as Ever?" A60.

deactivating units that still used older 1960s-era vehicles.¹⁷⁵⁰ At the same time, it curtailed reserve training and live fire exercises.¹⁷⁵¹ But in doing so, it risked eroding the quality of the army reserve, as IDF Training Branch and Comptroller reports warned in 1984, considering that intensive peacetime training was a key factor that enabled the battlefield successes of reservists in 1967 and 1973.¹⁷⁵²

Table 5.7: Israeli Army Size (1982-90) ¹⁷⁵³				
Year	Active	Reserve	Full Time	Israeli Population
1982	110,000	315,000	15,000	4,064,000
1984	104,000	420,000	16,000	4,200,000
1986	112,000	420,000	24,000	4,331,000
1988	104,000	494,000	16,000	4,477,000
1990	104,000	494,000	16,000	4,822,000

But even as Israeli defense spending fell, operations costs climbed due to expanding size of the IDF and its investments in new weapons systems. Population increases, for instance, caused the IDF reserve to expand throughout the 1980s, as shown in Table 5.7. At the same time, IDF equipment inventories grew to arm new formations and to support efforts to improve the army's combined arms capabilities, as shown in Table 5.8. And much of that new equipment was expensive and had high operating costs. The IAF's newly acquired F-16 and F-15 fighter aircraft cost

¹⁷⁵⁰ Staff Writers, "Reservists' Quitting Age to Be Lowered to 50," *The Jerusalem Post*, 17 October 1985, 2; Brower, *The Israel Defense Forces*, 15.

¹⁷⁵¹ Brilliant, "Training Hours Down in IDF Due to Budget Cut;" Hirsh Goodman, "Unlearned Lessons: Israel Defence Forces," 7.

¹⁷⁵² Ibid.

¹⁷⁵³ Jewish Virtual Library, "Population of Israel;" IISS, *Military Balance 1984*, 63; IISS, *Military Balance 1986*, 98-100; CIA, "Israel's Military Edge Continues," 1-2, 5; IISS, *Military Balance 1986*, 99-100; IISS, *Military Balance 1988*, 103; IISS, *Military Balance*, 1990, 106-07.

about twice as much as the F-4s that they replaced.¹⁷⁵⁴ The army's new Merkava main battle tank was also considerably more expensive than the older Pattons and Centurions. For one, the IDF built and upgraded the Merkava using its own domestic arms industry, which had grown and matured by the 1980s.¹⁷⁵⁵ It, therefore, had to bear a greater fiscal burden in developing and maintaining the industry to support tank production, maintenance, and upgrades.¹⁷⁵⁶ The enhanced armor and firepower of the Merkava Mk I—relative to the M-48 Patton—also meant that per-unit costs almost certainly increased. In the late 1970s, the estimated cost of a U.S.-produced Patton was around \$200,000 per tank, whereas the Merkava Mk I cost approximately \$252,000 per tank.¹⁷⁵⁷ The Merkava also weighed about 10 tons more than a Patton due to its heavier armor; that added weight, in turn, drove up fuel consumption rates.¹⁷⁵⁸

Table 5.8: Growth in IDF Combat Systems (1973-85) ¹⁷⁵⁹				
Year	Tanks	Combat Aircraft	Artillery	APCs
1986	3,900	500	1,200	10,600
1988	3,850	577	1,361	10,700
1990	4,288	553	1,395	10,700

¹⁷⁵⁴ F-15 price from U.S. Air Force, "F-15 Eagle," *U.S. Air Force*, <http://www.af.mil/AboutUs/FactSheets/Display/tabid/224/Article/104501/f-15-eagle.aspx> (accessed 02 November 2015); data on the F-4 prices is difficult to find. One estimate places it at around \$16.4 million total in 2008 dollars, bringing it close to \$18 million in 2015 dollars. See "McDonnell Douglas F-4 Phantom II," *Aircraft Compare*, <http://www.aircraftcompare.com/helicopter-airplane/McDonnell-Douglas-F-4-Phantom-II/437> (accessed 02 November 2015).

¹⁷⁵⁵ Sam Katz, *Merkava Main Battle Tank MKs I, II & III* (Oxford: Osprey Publishing, 1997), 12-14.

¹⁷⁵⁶ *Ibid.*

¹⁷⁵⁷ *Ibid.*, 10.

¹⁷⁵⁸ *Ibid.*, 45. For M-60, see TRADOC, *World Wide Equipment Guide* (2011), 5-15.

¹⁷⁵⁹ CIA, "Israel's Military Edge Continues," 5; IISS, *Military Balance 1988*, 103-04; IISS, *Military Balance*, 1990, 106-07.

Operating and maintaining these high-tech weapons systems required specially trained personnel, which Israel struggled to recruit and retain in the mid-1980s, as the IDF Comptroller reported in 1985.¹⁷⁶⁰ One reason for this was that many officers were leaving the military for more lucrative careers in Israel's booming high-tech economy.¹⁷⁶¹ At the time, Israel was experiencing a growth in its high-tech industries as young Israelis educated and trained in Silicon Valley in the late 1970s and early 1980s returned home to start up their own businesses.¹⁷⁶² To compensate, the IDF had to rely on officers and technicians with less education and training, which likely had a negative effect on the operational capabilities of the conscript and reserve force.¹⁷⁶³

Despite these challenges, the IDF doubled down on its commitment to a high-tech and high-skilled approach to warfare in the latter half of the 1980s under CGS Lieutenant General Dan Shomron (1987-91). Shomron understood that by the late 1980s the threat to Israel from state actors was declining.¹⁷⁶⁴ Syria was tied up in Lebanon, Iraq and Iran were at war with each other, and Israel and Egypt were at peace. Shomron, therefore, aimed to streamline the IDF, while improving its

¹⁷⁶⁰ Goodman, "Unlearned Lessons: Israel Defence Forces," 7.

¹⁷⁶¹ CIA, "The Israel Defense Forces After the War in Lebanon," 1.

¹⁷⁶² Israeli Ministry of Foreign Affairs, "Sectors of the Israeli Economy," <https://mfa.gov.il/mfa/aboutisrael/economy/pages/economy-%20sectors%20of%20the%20economy.aspx> (accessed 14 March 2020).

¹⁷⁶³ CIA, "The Israel Defense Forces After the War in Lebanon," 1-2.

¹⁷⁶⁴ CIA, "Israel: Political-Military Situation," 04 December 1987, 2, <https://www.cia.gov/library/readingroom/docs/CIA-RDP90T00114R000700770001-7.pdf> (accessed 29 February 2020).

technological edge in select areas that increased force lethality and survivability.¹⁷⁶⁵

In an 1987 interview, Shomron argued: “We must develop weapons that allow us to come out of a war with few casualties, and in order to have this we are forced to cut the army...Obviously, I am in favor of a large, top-quality, and expensive army...only unfortunately, these things do not go together...This is why I say quality is the first thing.”¹⁷⁶⁶

To improve the quality of the IDF, Shomron invested in long-range precision-guided munitions and improved intelligence capabilities—to include Israel’s first photo reconnaissance satellite (launched in 1988)—to identify, track, and strike targets from afar.¹⁷⁶⁷ At the same time, the IDF began investing in mid-air refueling aircraft to enable its F-15 fleet to strike further into enemy territory, as the threat from the so-called “far enemies” like Iraq and Iran was rising.¹⁷⁶⁸ And to protect Israel from retaliatory strikes, the IDF increased its investments in missile defense technologies, initiating development of the Arrow theater missile defense program with U.S. support.¹⁷⁶⁹

¹⁷⁶⁵ Ibid.

¹⁷⁶⁶ Raphael Marcus, *Israel’s Long War with Hizballah: Military Innovation and Adaptation Under Fire* (Washington, DC: Georgetown University Press, 2018), 131-32.

¹⁷⁶⁷ Ibid., 131; E.L. Zorn, “Israel’s Quest for Satellite Intelligence,” *Studies in Intelligence*, Winter-Spring 2001, 33-38. 10, 34.

¹⁷⁶⁸ CIA, “Israeli Military Capabilities for Striking PLO Bases,” 20 December 1985, 2 (<https://www.cia.gov/library/readingroom/docs/CIA-RDP90T01298R000300330001-5.pdf> (accessed 04 January 2020)).

¹⁷⁶⁹ Middleton, “Israel’s Defense as Good as Ever?” A60; Staff Writers, “Arrow (Israel),” *Missile Defense Advocacy Alliance*, undated, <https://missiledefenseadvocacy.org/defense-systems/arrow-israel/> (accessed 04 April 2020).

For the army, Shomron oversaw upgrades to the Merkava main battle tank that provided them with a longer range 120mm gun and improved fire control systems.¹⁷⁷⁰ Acquiring and upgrading this equipment, however, caused a considerable spike in total amount of money Israel spent per year on weapons deliveries from abroad as shown in Table 5.9, further constraining the IDF's ability to invest in training for its reserve force.

Table 5.9: Israeli Arms Deliveries Costs (1985-88) ¹⁷⁷¹ (1996 USD)	
Year	Cost (in billions)
1985	1.5
1986	1.5
1987	2.9
1988	2.3

To streamline the IDF, Shomron deactivated an entire armored division and retired older personnel, while reducing the size of division and corps staffs and mothballing aging aircraft and tanks.¹⁷⁷² Israel's increasing birthrate since the 1970s also allowed the IDF to be more selective in who it called to service, meaning it no longer had to make the same legal and morality waivers that were common in the 1970s.¹⁷⁷³ Men and women who did not want to serve, moreover, often received waivers or discharges.¹⁷⁷⁴

¹⁷⁷⁰ CIA, "The Israeli-Syrian Arms Race," 01 May 1988, iv, <https://www.cia.gov/library/readingroom/docs/CIA-RDP89S01450R000300250001-7.pdf> (accessed 04 January 2020).

¹⁷⁷¹ Anthony Cordesman, *Military Balance in the Middle East VI: Arab-Israeli Balance* (Washington, DC: CSIS, 1998), 3.

¹⁷⁷² CIA, "Israel: Political-Military Situation," 2, 4.

¹⁷⁷³ Van Creveld, *The Sword and the Olive*, 310.

¹⁷⁷⁴ Ibid.

Shomron's reforms were seemingly validated by the performance of the U.S. military in the 1991 Persian Gulf War, where similar technologies and tactical concepts enabled the U.S. and its allies to rapidly destroy the Iraqi army while suffering few casualties.¹⁷⁷⁵ Shomron and his successors as CGS largely maintained their commitment to a vision of a "smaller and smarter" force—a vision that had important implications for reserve readiness in the 1990s and 2000s.¹⁷⁷⁶

But the first test for Shomron was not a high-tech war against the conventional forces of a state army. Rather, it was against civilians and militants armed largely with rocks and knives. In the Palestinian territories of Gaza and the West Bank, a generation of youth who grew up under Israeli occupation since 1967 became increasingly fed up with their lack of independence and dire economic conditions (unemployment rates at about 50 percent).¹⁷⁷⁷ These frustrations erupted into widespread riots in Gaza in December 1987 that spread to the West Bank a month later. Riots and protests often led by men and boys armed with rocks, knives, and Molotov cocktails intensified over the next year into what became known as the First Intifada (Arabic for "shaking off").¹⁷⁷⁸ And amidst the unrest, a new Palestinian

¹⁷⁷⁵ Marcus, *Israel's Long War with Hizballah*, 132.

¹⁷⁷⁶ Marcus, *Israel's Long War with Hizballah*, 133; Efrain Karsh, *From Rabin to Netanyahu: Israel's Troubled Agenda* (New York: Routledge, 2013), 81-82.

¹⁷⁷⁷ CIA, "Near East and South Asia Review," 14 February 1986, 3, <https://www.cia.gov/library/readingroom/docs/CIA-RDP05S02029R000300760003-8.pdf> (accessed 04 January 2020); Sergio Catignani, *Israeli Counterinsurgency and the Intifadas: Dilemmas of a Conventional Army* (New York: Routledge, 2008), 77; Shapira, *Israel*, loc 9097 (73%).

¹⁷⁷⁸ DIA, "The Israel Defense Forces and the Palestinian Uprising," p. 2, <https://www.cia.gov/library/readingroom/docs/CIA-RDP92T00277R000600170002-1.pdf> (accessed 04 January 2020); Shapira, *Israel*, loc 9097 (73%).

militant group emerged: Hamas, which by the 1990s would become one of the top threats to Israeli security.

The IDF was caught unprepared for the Intifada, having spent most of its existence focused on wars against state armies. Thus, the three divisions of conscripts and reservists deployed to Gaza and the West Bank in January 1988 to quell the violence had little to no training for dealing with mass civil unrest.¹⁷⁷⁹ IDF leadership, moreover, was resistant to training units for problems that, in their view, were largely a police matter.¹⁷⁸⁰ Instead, their instinctive reaction was to employ heavy-handed tactics, firing live ammunition and plastic bullets—which could be lethal at close ranges—into crowds of rioters and protesters.¹⁷⁸¹ Such tactics killed as many as 500 Palestinians between 1987 and 1988.¹⁷⁸² But that Intifada continued unabated.

The scale, intensity, and duration of the Intifada forced the IDF to deploy thousands of reservists to Gaza and the West Bank. On average, a reserve unit rotated to the territories for multiple 60-day deployments, performing duties such as crowd control, presence patrols, and manning checkpoints.¹⁷⁸³ To get around legal restrictions that limited reserve deployments, the IDF cited national emergencies

¹⁷⁷⁹ Ibid.

¹⁷⁸⁰ Ibid.

¹⁷⁸¹ Catignani, *Israeli Counterinsurgency and the Intifadas*, 82.

¹⁷⁸² Cohen, “How did the Intifada Affect the IDF?” 9-10.

¹⁷⁸³ Abraham Rabinovich, “A Burden of Sixty Days,” *The Jerusalem Post*, 09 December 1988, B8.

procedures—known as “Order 8 Callups”—used during the War of Attrition with Egypt along the Suez Canal two decades earlier.¹⁷⁸⁴

Frequent deployments to the territories harmed reserve readiness in multiple ways. For one, it forced reserve units to cancel or curtail training, which as discussed above, had already been interrupted two years earlier due to the Lebanon War.¹⁷⁸⁵ But as IDF Deputy Chief of Staff Ehud Barak conceded in a 1988 speech, scaling back reserve training was “the price we must pay at the moment.”¹⁷⁸⁶

Reserve readiness also declined because service in the territories caused disciplinary and morale problems. Between 1988 and 1990, as many as 160 reservists—including some officers up to the rank of major—refused to serve in the territories, citing their opposition to the IDF’s heavy-handed tactics.¹⁷⁸⁷ 500 other reservists wrote a letter to Prime Minister Yitzhak Shamir (1986-92) requesting to be released from military service.¹⁷⁸⁸ Reservists were also outspoken critics in the media, as they did not fall under the same censorship regulations as conscripts.¹⁷⁸⁹ For instance, one reserve soldier admitted to the *New York Times* in 1989, “I was disgusted when I got my notice [to serve in the Palestinian territories]...It was against

¹⁷⁸⁴ DIA, “The Israel Defense Forces and the Palestinian Uprising,” 4, 6-7.

¹⁷⁸⁵ Ibid., iii, 3.

¹⁷⁸⁶ Staff Writers, “Increase in Reserve Duty Expected,” *The Jerusalem Post*, 25 February 1988, 2.

¹⁷⁸⁷ DIA, “The Israel Defense Forces and the Palestinian Uprising,” 8; Joel Brinkley, “Israel Mired in the West Bank,” *The New York Times*, 07 May 1989, A60.

¹⁷⁸⁸ Benny Morris, “Serving Their Term,” *The Jerusalem Post*, 03 June 1988, A4.

¹⁷⁸⁹ Joel Brinkley, “Israel Mired in the West Bank,” A30.

my principles to even be there.”¹⁷⁹⁰ Those who refused to serve, however, faced harsh punishment, as Yitzhak Rabin—now the Minister of Defense—sentenced them to multiple months in prison.¹⁷⁹¹

Reservists and conscripts alike were particularly upset that their senior commanders provided them limited guidance on rules of engagement. Each battalion or company commander essentially could dictate how to deal with protesters or militants.¹⁷⁹² What this led to, in one reservist’s estimation, was “total chaos.”¹⁷⁹³ Some units acted heavily-handily, while others were more restrained. But those who acted aggressively faced criminal prosecution back home (194 soldiers convicted by 1992).¹⁷⁹⁴ To avoid such a fate, many units chose not to conduct patrols or other assigned missions.¹⁷⁹⁵ Some even joked that they would not serve in the territories unless they had “a lawyer attached.”¹⁷⁹⁶

By the 1990s, the IDF started to adjust its tactics, while reducing its use of reserve soldiers. IDF commanders, for instance, began to take counterinsurgency and stability operations more seriously, no longer viewing them as less prestigious

¹⁷⁹⁰ Ibid.

¹⁷⁹¹ Van Creveld, *The Sword and the Olive*, 350.

¹⁷⁹² Catignani, *Israeli Counterinsurgency and the Intifadas*, 85.

¹⁷⁹³ Ibid.

¹⁷⁹⁴ Ibid., 86.

¹⁷⁹⁵ Ibid.

¹⁷⁹⁶ Ibid.

distractions from conventional operations.¹⁷⁹⁷ And they implemented new tactics like establishing mobile check points and conducting targeted raids to capture or kill militant leaders who were inciting violence.¹⁷⁹⁸ The Ministry of Defense also started replacing reservists with specially trained border police.¹⁷⁹⁹ Doing so reduced the average reserve deployment to the territories from 62 to 44 days a year by the early 1990s.¹⁸⁰⁰ Combined, these tactics helped quell the Intifada by 1993.

From a military perspective, the Intifada exposed deep problems within the IDF and its reserve component in particular. As was the case in the Lebanon War, reservists demonstrated questionable morale; and their willingness to speak out publicly against their missions made them a potential political liability for Israeli leaders. Their utility for conventional operations was also on the decline, because of reduced training opportunities in the 1980s due to budgetary cuts and operational demands. Such developments prompted some Israeli military commentators to warn that the IDF of the late 1980s and early 1990s was losing its conventional warfighting edge.¹⁸⁰¹ As Israeli military historian Martin Van Creveld lamented, “What used to

¹⁷⁹⁷ Stuart Cohen, “How Did the Intifada Affect the IDF,” *The Journal of Conflict Studies* 14 (1994), 9.

¹⁷⁹⁸ *Ibid.*, 10.

¹⁷⁹⁹ Staff Writers, “Israel’s Border Police Replace Gaza Troops,” *The New York Times*, 12 March 1989, A18.

¹⁸⁰⁰ *Ibid.*

¹⁸⁰¹ Karsh, *From Rabin to Netanyahu*, 81-83.

be one of the world's finest fighting forces is rapidly degenerating into a fourth-class police organization.”¹⁸⁰²

Israel, however, remained dependent on its army reserve for cultural, military, and fiscal reasons. Culturally, many Israelis still valued their reserve service as a way to escape civilian life and bond with old friends.¹⁸⁰³ Others still argued that the reserve was a critical institution for building societal cohesion—just as Ben Gurion had envisioned thirty years earlier.¹⁸⁰⁴ Fiscally, it also made sense to keep a trained reserve, as budgetary pressures prevented the IDF from developing a more expensive all volunteer force like the U.S. Army. Most conscripts, for instance, cost only about \$90 a month, while the IDF budget did not have to account for reserve pay, as Social Security covered much of those costs.¹⁸⁰⁵ Volunteers, as previous chapters have shown, would have cost much more, and would have required financial incentives to join and remain in the service.

But the most important reason why Israel remained committed to its reserve was that it simply lacked enough full-time personnel to fight without them. Even with an enlarged conscript force, the IDF still had to call thousands of reservists to action in Lebanon and in the Palestinian territories in the 1980s. In other words, the IDF could not function without the reserves and Israeli cultural norms would almost

¹⁸⁰² Ibid.

¹⁸⁰³ Staff Writers, “Reserve Duty for Israelis: A Way of War,” *The New York Times*, 25 May 1986, A4.

¹⁸⁰⁴ Ibid.

¹⁸⁰⁵ Van Creveld, *The Sword and the Olive*, 311.

certainly prevent it from doing so if it tried. The problem, however, was that the qualitative gap separating the reservist from the conscript was growing—and would widen significantly in the 1990s and 2000s, forcing the IDF to reconsider long-held policies on reserve service.

Section 3: Distracted and Demoralized

During the mid to late 1990s, IDF reserve readiness levels plummeted as the result of three developments. First, the Israeli security environment changed in such a way that gave IDF leaders the impression they could meet the bulk of their operational requirements with conscripts alone or with very few reservists. Second, operational demands and budgetary restrictions constrained the IDF's ability to provide time and resources for reservist training. Those budgetary constraints, moreover, resulted from the IDF's continued evolution into a technical army, growing competition for Israeli government resources, and increases in the size of the active duty and reserve components of the IDF that resulted from a spike in immigration to Israel in the 1980s and early 1990s. And, finally, new legal restrictions put in place in the late 1990s greatly reduced the number of days reservists could train per year. Because of these developments, the IDF reserve was unprepared for war when activated for a series of conflicts in the 2000s.

In the 1990s, the IDF revised its military doctrine to focus on precision-strikes conducted by highly trained conscript units, the air force, and its intelligence services. This shift began in part under CGS Shomron in the 1980s but was interrupted by the Intifada. Yet his next two successors as CGS, Ehud Barak (1991-95) and Amnon Lipkin-Shahak (1995-98), took advantage of the relative peace of the early to mid-

1990s to restart and accelerate Shomron's reforms. They did so in part based on lessons learned from observing the U.S. military's stunning defeat of the Iraqi Army in the 1991 Persian Gulf War.¹⁸⁰⁶ During that war, the United States demonstrated how modern military aircraft equipped with precision-guided munitions and informed by digital intelligence and command and control systems could destroy the ground and air forces of an Arab army within weeks. Based on these lessons and its own similar experiences against the Syrians in 1982, the IDF refocused its priorities and spending on enhancing the precision long-range strike capabilities of its army, air force, and intelligence services.¹⁸⁰⁷

The IDF rationalized these reforms due to shifts in its threat environment. By the early to mid-1990s, Israel's main adversaries were Iran and Iraq—the so-called “far threats.”¹⁸⁰⁸ During the Persian Gulf War, Iraq had shown its ability and intent to threaten the Israeli homeland by launching 40 ballistic missiles against Israeli cities—the first time that major Israeli cities came under attack since 1948.¹⁸⁰⁹ Iran, meanwhile, provided military and financial support for Hizballah attacks on Israeli soldiers in the security zone between Israel and Lebanon. The Israelis also feared that

¹⁸⁰⁶ Stuart Cohen, *Israel and its Army: From Cohesion to Confusion* (New York: Routledge, 2008), 42.

¹⁸⁰⁷ Cordesman, *Military Balance in the Middle East - VI*, 27; Arie O'Sullivan, “IDF Plans Calls for Greater Readiness,” *The Jerusalem Post*, 03 February 1999, 5.

¹⁸⁰⁸ Cohen, *Israel and its Army*, 40.

¹⁸⁰⁹ Cohen, *Routledge Handbook on Israeli Security*, 56; Shapira, *Israel*, loc 9403 (76%) .

Iran was developing a nuclear weapons program that could pose an existential threat to Israel.¹⁸¹⁰

Responding to the Iraqi and Iranian threat, did not require large numbers of soldiers. A conflict between Israel and either one of those powers would almost certainly occur mainly through the air, with long-range missiles, or via militant proxy groups like Hizballah. Additionally, the army of Iraq was largely destroyed by the United States in the 1991 Persian Gulf War and it lacked the ability to rebuild itself due to extensive sanctions put in place after that war. Iran, meanwhile, was also isolated internationally and still recovering from the Iran-Iraq War in the 1980s, limiting its ability to develop a capable ground force. And neither state had the lift capability to project conventional ground forces beyond their borders to threaten the Israeli homeland. The only state adversary that did at the time—Syria—was dealing with an economic depression and a decline in military readiness following the end of Soviet aid as a result of the collapse of the Soviet Union.¹⁸¹¹

In the unlikely event of a major war, the IDF was increasingly confident it could contain and defeat such a threat using its conscript army and air force.¹⁸¹² In 1993, for instance, the Ministry of Defense announced it was reducing reliance on reservists by as much as 50 percent for everyday missions due to the growing size of

¹⁸¹⁰ Cohen, *Israel and its Army*, 40.

¹⁸¹¹ Cohen, *Routledge Handbook on Israeli Security*, 54.

¹⁸¹² Van Creveld, *The Sword and the Olive*, 351.

its conscript cohort that provided an extra boost in personnel strength.¹⁸¹³ They also believed the reductions would save as much as \$139 million a year because it would not have to pay reservists for lost income from their civilian employers.¹⁸¹⁴ And by the late 1990s, the IDF created specialized conscript battalions to carry out policing duties in the West Bank, relieving some reservists of that burden.¹⁸¹⁵ At the strategic-level, the IDF also revised its security doctrine under a new concept called “Crossword 2000” that envisioned Israel defending itself against a conventional attack “without being as dependent on reservists.”¹⁸¹⁶

One of the reasons the IDF was able to rely more on the active army was that its yearly intake of new conscripts increased rapidly in the late 1980s and early 1990s as Israel’s population boomed due to rising immigration and high birth rates. Between 1984 and 1994 the size of the active Israeli army grew from 104,000 to 114,700, while its cadre of full-time professionals increased from 16,000 to 19,300.¹⁸¹⁷ During this period, Israel’s population also expanded from around 4.8 million in 1990 to over 6 million by the end of the decade as hundreds of thousands

¹⁸¹³ Evelyn Gordon, “IDF to Use 50% Fewer Reservists by 1996,” *The Jerusalem Post*, 29 September 1993, 1.

¹⁸¹⁴ Ibid; Michael Rotom, “IDF Shifting Reserve Burden,” *The Jerusalem Post*, 02 July 1993, 5.

¹⁸¹⁵ Arie O’Sullivan, “Conscripts Replace Reservists in West Bank,” *The Jerusalem Post*, 03 December 1998, 4.

¹⁸¹⁶ Arie O’Sullivan, “Reservists to Train More,” *The Jerusalem Post*, 13 June 1999, 3.

¹⁸¹⁷ IISS, *Military Balance 1984*, 63.

of new immigrants—including thousands of military age youth—arrived from the Soviet Union and Ethiopia.¹⁸¹⁸

Table 5.10: Israeli Army Size (1992-1998) ¹⁸¹⁹				
Year	Active	Reserve	Full Time	Israeli Population
1992	114,700	494,000	19,300	5,196,000
1994	114,700	494,000	19,300	5,619,000
1996	114,700	494,000	19,300	5,689,000
1998	114,700	494,000	19,300	6,038,000

The growth of the conscript force, however, had negative effects on reserve readiness. As the number of conscripts grew, the number discharged into the reserve increased as well, which nearly doubled the size of the army reserve from 315,000 in 1982 to 500,000 a decade later.¹⁸²⁰ The problem was that there was not enough operational assignments, budgetary resources, or instructors to provide the enlarged reserve with meaningful tasks during yearly activations.¹⁸²¹ Consequently, many reservists received menial duty assignments such as manning checkpoints.¹⁸²² Upwards of 40 percent of reservists were simply not activated at all.¹⁸²³

Budgetary constraints also reduced the IDF's ability to train reservists during the 1990s. The Israeli economy boomed in the 1990s, but defense spending remained near or below 10 percent of GDP—a major decline compared to the 1970s

¹⁸¹⁸ Jewish Virtual Library, "Population of Israel; Stuart Cohen, "How did the Intifada Affect the IDF?" *Conflict Quarterly*, vol. 14 (Summer 1994), 13.

¹⁸¹⁹ Anthony Cordesman, *The Arab-Israeli Military Balance in 2010* (Washington, DC: CSIS, 2010), 8; Jewish Virtual Library, "Population of Israel;" IISS, *Military Balance 1992*, 111; IISS, *Military Balance 1994*, 131; IISS, *Military Balance 1996*, 135.

¹⁸²⁰ Cordesman, *The Arab-Israeli Military Balance in 2010*, 8.

¹⁸²¹ Van Creveld, *The Sword and the Olive*, 311-12.

¹⁸²² *Ibid.*, 312.

¹⁸²³ *Ibid.*

and 80s when it ranged from 14 to 30 percent.¹⁸²⁴ Actual defense expenditures, meanwhile, remained flat between \$8.26 billion and \$9.7 billion throughout the decade as did U.S. aid, which ranged between \$3.10 billion and \$4.13 billion, as shown in Table 5.11 below.

IDF overhead costs also rose during the 1990s. The IDF continued to maintain a large inventory of armored vehicles that consumed high amounts of fuel and required specialized technicians to maintain. Personnel costs also grew by as much as 40 percent between the late 1970s and mid-1990s as the IDF sought to attract and retain high skilled technicians and leaders.¹⁸²⁵ The IDF also started sending more officers to study at civilian universities and expanded its staff colleges to better prepare its leaders for the technical complexities of late 20th century warfare.¹⁸²⁶ New weapons programs, like the longer-range F-15I, cost the IDF around \$100 million per aircraft; Israel also developed an expensive new submarine program (three Dolphin Submarines for \$250 million each) to improve its regional power projection capability against Iran and Iraq.¹⁸²⁷ As historian Martin Van Creveld argued, these equipment and personnel trends shifted “the balance from fighters in favor of technicians.”¹⁸²⁸

¹⁸²⁴ Cohen, *Israel and its Army*, 59; World Bank, “Military expenditure (% of GDP) – Israel.

¹⁸²⁵ Van Creveld, *The Sword and the Olive*, 319.

¹⁸²⁶ *Ibid.*, 316.

¹⁸²⁷ Cordesman, *Military Balance in the Middle East - VI*, 10; Van Creveld, *The Sword and the Olive*, 320-21.

¹⁸²⁸ *Ibid.*, 322.

These increased investments in high-tech equipment and higher skilled personnel drove up the per capita costs of each Israeli service member. For instance, in 1978, the IDF had around \$7,559 (USD 2000) to spend per soldier, airman, or sailor. By the mid-2010s, that number ballooned to around \$30,000 per soldier.

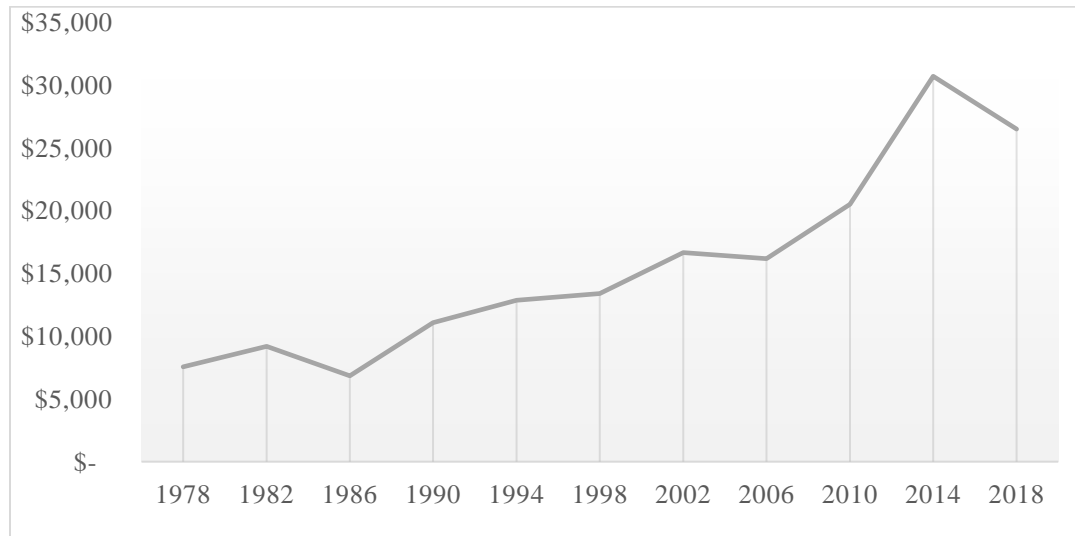


Figure 5.1: Per Capita Cost of IDF Soldier, Sailor, or Airmen (2020 USD)¹⁸²⁹

Because of these two trends—flat defense spending and rising overhead costs—the IDF had to make cuts to its conscript and reserve force to maintain readiness. As CGS, Ehud Barak focused on cutting “whatever does not shoot,” leading him to authorize the reduction of the IDF’s administrative and maintenance staff by around 10,000 billets.¹⁸³⁰ For the reserve component, the IDF scaled back training and began releasing men from reserve obligations at age 47, as opposed to age 54, as will be discussed in more detail below. And as mentioned above, the IDF

¹⁸²⁹ Calculated using IDF yearly defense expenditures from World Bank data used previous tables and IDF personnel strength listed in previous tables.

¹⁸³⁰ Cohen, *Israel and its Army*, 93, 95.

replaced some reserve units in the West Bank with conscript units and border police that were generally cheaper—and less controversial—to deploy.

Table 5.11: Israeli Defense Spending (1992-2000) (2017 USD) ¹⁸³¹				
Year	Defense Spending as Percent of GDP	Israeli GDP (billions)	Estimated Expenditure (billions)	U.S. Aid (billions)
1992	12.34	75.97	8.26	3.10
1994	11.43	86.34	8.78	3.10
1996	8.73	110.00	9.60	3.15
1998	7.88	115.93	9.70	3.08
2000	7.11	132.34	8.64	4.13

Table 5.12: IDF Reserve Service Obligations ¹⁸³²		
Period	Reserve Maximum Age for Combat Arms	Reserve Maximum Age for Combat Support
1969 to 1976	39	55
1976 to 1992	44	54
1992 to 1997	45	51 to 54
1997 to 2000	41 (still available until 47)	47 to 51

The reduction in service obligations for reservists resulted from a 1997 law.

Until the mid-1990s, there were no restrictions on how many days a reservist could train per year or how many days he/she could be deployed. That changed in 1997 when the Knesset—with support from the Ministry of Defense—capped the yearly reserve activation period at 36 days, at least five of which should be dedicated to training.¹⁸³³ During a state of emergency, the IDF could still keep reservists activated

¹⁸³¹ World Bank, “Military expenditure (% of GDP) – Israel;” World Bank, “Israel GDP,” World Bank, Military expenditure (current USD); Jewish Virtual Library, “U.S. Foreign Aid to Israel.”

¹⁸³² Brilliant, “Army to Reduce Reserve Duty;” Gal, *Portrait of an Israeli Soldier*, 19; Feron, “Israel Lifts Top Age for Reserve Duty from 49 to 55; Israel Ministry of Foreign Affairs, “Defense Service Law,” *MFA Archive*, <https://mfa.gov.il/mfa/mfa-archive/1980-1989/pages/defence%20service%20law%20-consolidated%20version--%205746-1.aspx> (accessed 28 March 2020); Alon Pinkas, “Maximum Reserve Duty Age Lowered,” *The Jerusalem Post*, 15 April 1992, 12; Liat Collins, “New Law Eases Reservists’ Burden,” *The Jerusalem Post*, 23 December 1997, 1; Arie O’Sullivan, “Reserve Duty to End for Almost all at Age 45,” *The Jerusalem Post*, 11 August 2000, A5; Arie O’Sullivan, “Knesset to Pass Reserve Bill Today,” *The Jerusalem Post*, 22 December 1997, 3.

¹⁸³³ Ibid.; Liat Collins and Arie O’Sullivan, “Reserve Duty Bill Goes to 1st Reading,” *The Jerusalem Post*, 27 November 1997, 4.

for an unlimited period using Order 8 mobilization authorities.¹⁸³⁴ Consequently, by the end of 1997, the average reservist was only training or conducting operational support missions around 24 days a year or less (most of which was non-training related), compared to the 30 to 45 dedicated training days a year or more most reservist had in the 1960s or 70s.¹⁸³⁵ By reducing reserve training and operational commitments, the IDF estimated it could save around \$140 million a year.¹⁸³⁶

Additionally, the Knesset and the Ministry of Defense hoped that reduced obligations would help resolve a morale crisis that had gripped the IDF in the early to mid-1990s. As many as 72 percent of reservists during that period found their service to be demoralizing or irrelevant, according to a 1995 poll.¹⁸³⁷ And as many as 63 percent of reservists believed that Israeli society actively encouraged avoiding reserve duty, according to a separate poll conducted by the IDF in 1996.¹⁸³⁸ Lack of societal support for reserve service was evident in the fact some civilian employers punished or even fired reservists if they participated in military training or operations.¹⁸³⁹

Faced with such pressures, many reservists concluded that army service was not “important enough to sacrifice days to reserve duty,” as one reserve commander

¹⁸³⁴ Ibid.

¹⁸³⁵ Arie O’Sullivan, “IDF Tries to Make Reservists Feel at Home,” *The Jerusalem Post*, 31 December 1997, 4; Williams, *Israeli Defense Forces: A People’s Army*, 12; Love, “Israel’s Forces Outweigh Arabs,” 14..

¹⁸³⁶ Collins, “New Law Eases Reservists’ Burden,” 1.

¹⁸³⁷ Van Creveld, *The Sword and the Olive*, 351.

¹⁸³⁸ Arie O’Sullivan, “50% of Reservists Would Opt Out if They Could,” *The Jerusalem Post*, 11 September 1996, 1.

¹⁸³⁹ Arie O’Sullivan, “Lower Motivation is Weakening IDF,” *The Jerusalem Post*, 14 August 1996, 1.

from the time observed.¹⁸⁴⁰ Thus, as many as 50 percent of reservists failed to show up for duty by 1996, leading CGS Shahak and other Israeli officers to warn that reserve morale was “critical” and that it could compromise Israel’s ability to defend itself.¹⁸⁴¹ By comparison, only about 20 percent of reservists in the mid-1970s refused to serve, according to polling conducted at the time.¹⁸⁴² Many others sought waivers for participating in reserve duty, feeling that those who did attend were “suckers,” according to a 1997 IDF Comptroller report.¹⁸⁴³

These attitudes regarding reserve service reflected substantial changes that had occurred to Israeli society and its strategic environment over the previous two decades. During that period, major threats to Israeli security declined. There was no longer a realistic, existential threat to Israel, outside of Iran’s nascent nuclear program. And the wars that Israel had fought recently in Lebanon were unpopular among many Israeli youth.¹⁸⁴⁴ Israeli society in general was also suffering from a sort of military fatigue following decades of war and indecisive, low-intensity conflicts.¹⁸⁴⁵ Popular attitudes regarding the military, moreover, were also changing, as evidenced by new Israeli films and novels that depicted military life as

¹⁸⁴⁰ Arie O’Sullivan, “Reserve Commanders Declare War on Service Evaders,” *The Jerusalem Post*, 11 September 1996, 1.

¹⁸⁴¹ Van Creveld, *The Sword and the Olive*, 351; Sullivan, “Lower Motivation is Weakening IDF,” *The Jerusalem Post*, 14 August 1996; Staff Writers, “Reservists form Lobby to Cut Duty,” *The Jerusalem Post*, 25 September 1994; Perlinger, “The Changing Nature of the Israeli Reserve Forces,” 232.

¹⁸⁴² Ibid.

¹⁸⁴³ O’Sullivan, “Lower Motivation is Weakening IDF,” 1.

¹⁸⁴⁴ Ibid.

¹⁸⁴⁵ Cohen, *Israel and its Army*, 58.

depressing.¹⁸⁴⁶ And as discussed above, this new Israel was increasingly urban and focused on the booming private sector and tech industries, not the military as had been the case in the past. In fact, by 2000, only 2 percent of Israelis were involved in agriculture and the kibbutzim that had produced many top Israeli commanders had largely disappeared.¹⁸⁴⁷ Thus, to make reserve life more appealing for the new urban Israeli, the Israeli government reduced service burdens.

The IDF also sought to make reserve service more appealing by improving benefits and employee protections. Pay for officers and NCOs increased and reserve facilities were renovated to make them more comfortable.¹⁸⁴⁸ Legal restrictions were also enacted to prevent employers from firing or disciplining reservists for attending training.¹⁸⁴⁹ And universities were required to allow reservists to make-up work missed due to reserve service.¹⁸⁵⁰ The IDF also created special awards and ceremonies for “outstanding reservists” to give them public recognition and a sense of pride in their work.¹⁸⁵¹

¹⁸⁴⁶ Ibid., 57.

¹⁸⁴⁷ Shapira, *Israel*, loc 9937 (80%).

¹⁸⁴⁸ Levy, “The Decline of the Reservist Army,” 70; O’Sullivan, “Knesset to Pass Reserve Bill Today,” 3; Staff Writers, “Giving Reservists Their Due,” *The Jerusalem Post*, 17 July 1997, 6; O’Sullivan, “IDF Tries to Make Reservists Feel at Home,” 4.

¹⁸⁴⁹ Ibid.

¹⁸⁵⁰ Collins, “New Law Eases Reservists’ Burden,” 1.

¹⁸⁵¹ O’Sullivan, “Reserve Commanders Declare War on Service Evaders,” 1.

Table 5.13: Maximum Reserve Service Days (Non-State of Emergency) ¹⁸⁵²		
Period	Max Legal Days of Service	Max Continuous Days
1948 to 1995	Unlimited	Unlimited
1995 to 1996	48 to 50	24
1997 to 2004	36 (25 duty and six training)	25

Despite these efforts, reserve readiness declined significantly throughout the 1990s. With only around six training days a year, units struggled to maintain proficiency in their military specialties.¹⁸⁵³ This was especially true for tank and mechanized infantry units, who rarely had opportunities to use their equipment because when deployed to the West Bank they mostly operated as dismounted infantry manning checkpoints or escorting vehicles.¹⁸⁵⁴ Many of these same units were also failing to keep up with regular maintenance on their vehicles, meaning those vehicles would not be ready at the start of a crisis, as had occurred in the 1973 war.¹⁸⁵⁵

A 1997 IDF Comptroller report highlighted how reserve units were also struggling to divide their time between operational assignments and training, often leading to a decline in unit readiness—a finding that senior army leaders did not contest.¹⁸⁵⁶ Instead, those leaders pointed to budgetary problems that were preventing

¹⁸⁵² O’Sullivan, “Knesset to Pass Reserve Bill Today,” 3.

¹⁸⁵³ Arie O’Sullivan, “Reserve Training Lax,” *The Jerusalem Post*, 08 May 1997, 9.

¹⁸⁵⁴ Ibid.

¹⁸⁵⁵ Ibid.

¹⁸⁵⁶ Ibid.

units from doing extensive live fire exercises and gunnery training, which were previously core training tasks for reservists.¹⁸⁵⁷

Changes in the experience levels of IDF trainers also undermined reserve readiness. As discussed previously, veteran officers and NCOs generally oversaw IDF reserve training in peacetime, unlike in other armies like the United States where reservists generally train other reservists. And in the past, the Israelis benefited from having trainers who had extensive experience in conventional military operations helping to build and maintain reserve readiness. But from the early to mid-1980s, those veterans with expertise in conventional military operations were retiring or had moved up to senior ranks.¹⁸⁵⁸ In their place came trainers whose primary experiences were in low-intensity conflict against Palestinian militants or Hizballah.¹⁸⁵⁹ Such developments concerned CGS Shahak, who warned in 1997 that the reserves were losing experienced cadres and were thus starting to perform poorly in training exercises.¹⁸⁶⁰

CGS Shaul Mofaz (1998-2002) sought to reverse this decline. In 1999, he warned that the reserve was ill-prepared to fight a major war because of inadequate training and that Israel could not fight such a war without its reserves.¹⁸⁶¹ To

¹⁸⁵⁷ Ibid.

¹⁸⁵⁸ Cordesman, *Military Balance in the Middle East* - VI, 16.

¹⁸⁵⁹ Cohen, *Israel and its Army*, 49; O'Sullivan, "Reserve Training Lax," 9.

¹⁸⁶⁰ Cordesman, *Military Balance in the Middle East* - VI, 16.

¹⁸⁶¹ O'Sullivan, "Reservists to Train More," 3.

improve reserve readiness, Mofaz announced that he intended to ramp up training.¹⁸⁶²

One way he did so was by reducing reservist rotations in the West Bank, allowing them to focus their limited time on field and classroom exercises.¹⁸⁶³ The IDF also attempted to rely more on digital training centers and new urban combat facilities to boost the realism of training exercises.¹⁸⁶⁴ But, unfortunately for the IDF, these measures came too late. Just a year after the start of these new initiatives, the Second Intifada erupted, requiring extensive deployments of reservists.

In summary, by the late 1990s, the IDF army reserve was no longer the elite fighting force that it was in the 1960s and 70s. Its once rigorous peacetime training program was no more, as training days declined from 30 days or more to just several days a year. The motivation of the average reservist to serve, meanwhile, was questionable. And those who did serve had few opportunities to advance their technical skills and knowledge due to budgetary shortages, time constraints, and the declining experience levels of Israeli trainers.

Section 4: Consequences of Decline

The IDF faced back-to-back crises in the first decade of the twenty-first century—the Second Intifada (2000-05) and the 2006 Lebanon War. These events required it to activate and deploy thousands of reservists. A decade of neglect and declining standards, however, meant that most reserve formations were unprepared.

¹⁸⁶² Ibid.

¹⁸⁶³ O'Sullivan, "Conscripts Replace Reservists in West Bank," 4.

¹⁸⁶⁴ O'Sullivan, "Reservists to Train More," 3.

Yet this did not matter much during the Second Intifada, because reservists generally received relatively simple missions such as manning checkpoints or conducting presence patrols. Conscripts, the intelligence services, and the air force shouldered the burden of more complicated operations.

But in some cases, like the 2002 Battle of Jenin, reserve formations were committed in high-intensity combat operations against highly motivated, albeit poorly equipped, militants in dense urban terrain. Reserve performance in such engagements was uneven, as is detailed below. During the 2006 Lebanon War, reservists were thrust into large-scale combat operations with little to no pre-deployment training. The result was a near disaster in which reserve formations suffered heavy losses that helped convince the Israeli government to suspend combat operations before achieving its stated objectives, providing Hizballah and its Iranian sponsors a major political victory. In short, the IDF's neglect of its reserve component severely degraded its overall combat effectiveness and bolstered the standing of its regional adversaries. Both conflicts, moreover, demonstrated that Israel's tiny conscript army and air force could not fight and win protracted wars without the reserves.

The Second Intifada erupted on 28 September 2000, as Palestinian militant and terrorist groups launched a wave of suicide bombing attacks against Israeli civilians and military targets. The Palestinian Authority (PA), the interim self-governing body of the Palestinians established in the 1990s as part of the Oslo Accords, hoped that such attacks would force Israel to make concessions in the stalled

peace talks.¹⁸⁶⁵ And it used a controversial visit by Ariel Sharon to the Temple Mount—which is also home to Islam’s third holiest site, the al-Aqsa Mosque—as justification for launching the campaign.¹⁸⁶⁶ PA leaders seemed to have been emboldened to undertake such an action because of Israel’s 2000 withdrawal from southern Lebanon under pressure from attacks by Hizballah.¹⁸⁶⁷ The PA, however, miscalculated. The Israeli government response to the uprising was robust, especially after Ariel Sharon—a well-known hawk—became prime minister in February 2001.¹⁸⁶⁸

The IDF faced a much different battlespace in 2000 compared to what it had confronted during the First Intifada. Israeli soldiers mainly dealt with mass protests and rioting during that uprising. Instances of organized violence by groups like Hamas were relatively rare. During the Second Intifada, however, the IDF faced an organized urban terrorist campaign in which multiple groups—the PA, Hamas, and Islamic Jihad—carried out near-daily bombings and shootings against Israeli civilian and military targets.¹⁸⁶⁹

The unprecedented scale and duration of the violence also forced the IDF to activate and deploy thousands of reservists. During the first two to three years, as

¹⁸⁶⁵ Sergio Catignani, *Israeli Counterinsurgency and the Intifadas: Dilemmas of a Conventional Army* (New York: Routledge, 2008), 102.

¹⁸⁶⁶ Ibid.

¹⁸⁶⁷ Ibid.

¹⁸⁶⁸ Ibid., 103.

¹⁸⁶⁹ Ibid., 105.

many as 20,000 reservists were on duty at a time, serving tours of 27 to 43 days.¹⁸⁷⁰

The declaration of a national state of emergency allowed for deployments that extended beyond the new limits that had been put in place in 1997.¹⁸⁷¹ And by keeping units in rotations that typically did not extend beyond two months, the IDF could limit the negative impact of reserve deployments on the civilian economy. Officers, however, carried a more substantial burden, as many worked upwards of 180 days a year at some points, all while trying to juggle their family lives and civilian careers.¹⁸⁷²

The initial wave of reserve rotations to the West Bank revealed a host of equipment and training problems. For one, many units showed up with insufficient quantities of basic equipment. One reservist recalled at the time how his unit did not have enough body armor and helmets.¹⁸⁷³ Each soldier in his unit also only had one magazine of ammunition, compared to the standard load of around seven magazines per rifleman.¹⁸⁷⁴ And units were also undertrained due to the aforementioned training cuts and were hastily thrown into action with little to no preparation beyond a short three-day course on counterinsurgency tactics.¹⁸⁷⁵

¹⁸⁷⁰ Arie O'Sullivan, "20,000 Reservist Enough for Now," *The Jerusalem Post*, 01 April 2002 3; Catignani, *Israeli Counterinsurgency and the Intifadas*, 146; Eric Schichter, "Reservist Groups Express Outrage Over Latest Service Extension Bill," *The Jerusalem Post*, 14 March 2003, A3.

¹⁸⁷¹ Catignani, *Israeli Counterinsurgency and the Intifadas*, 146.

¹⁸⁷² *Ibid.*, 108.

¹⁸⁷³ Arie O'Sullivan, "Reservists Ill-Equipped for West Bank," *The Jerusalem Post*, 11 December 2000, 4.

¹⁸⁷⁴ *Ibid.*

¹⁸⁷⁵ Arie O'Sullivan, "All Combat Reservists to Be Drafted within a Year," *The Jerusalem Post*, 02 November 2000, 1.

Nevertheless, the lack of training was not a major issue at first because the IDF planned to assign reservists simple missions like guarding the Lebanese border or operating checkpoints.¹⁸⁷⁶ Doing so freed conscript units to conduct more difficult missions such as locating and destroying weapons production facilities.¹⁸⁷⁷ But these so-called routine missions assigned to reservists were quite dangerous. Manning a static checkpoint made soldiers vulnerable to sniper attacks or suicide bombers as they were operating “like sitting ducks,” in the words of one reservist.¹⁸⁷⁸

Despite these difficult circumstances, about 85 to 97 percent of reservists reported for duty when called.¹⁸⁷⁹ Unlike the war in Lebanon, Israelis largely viewed the IDF’s mission in the Second Intifada as defensive in nature, not a war of choice.¹⁸⁸⁰ And Palestinian terrorists were also directly targeting Israeli civilians with rockets and suicide bombers.¹⁸⁸¹ Thus, even though many Israeli youth no longer viewed reserve service as desirable, they still showed up and fought. As one reserve soldier told a journalist at the time, “[I] don’t really like reserve duty. I like my color TV, I like my couch. But we feel like this is part of our duty.”¹⁸⁸²

¹⁸⁷⁶ Matthew Gutman, “Reserves of Strength,” *The Jerusalem Post*, 12 April 2002, B7.

¹⁸⁷⁷ Yosef Goell, “Reservist Get The Message,” *The Jerusalem Post*, 10 April 2001, 6.

¹⁸⁷⁸ Ibid.; O’Sullivan, “Reservists Ill-Equipped for West Bank,” 4.

¹⁸⁷⁹ Arie O’Sullivan, “20,000 Reservist Enough for Now,” *The Jerusalem Post*, 01 April 2002, 3.

¹⁸⁸⁰ Catignani, *Israeli Counterinsurgency and the Intifadas*, 107.

¹⁸⁸¹ Gutman, “Reserves of Strength,” B7.

¹⁸⁸² Ibid.

That said, there were pockets of resistance. Some activists protested the length of reserve deployments and how many Israelis were not required to serve at all.¹⁸⁸³ In fact, about 10 percent of the reserve force were the ones completing the lengthy 30-day or more deployments during the intifada.¹⁸⁸⁴ The reason for this was that many Israeli youth were still finding ways to get medical, family, or work-related deferments; the ultra-orthodox community, meanwhile, were largely exempted from military service to allow them to pursue religious studies.¹⁸⁸⁵ This created a sense of resentment among serving reservists.¹⁸⁸⁶ One reserve soldier in a television interview in 2001 explained how many men in his unit felt like “suckers” for responding to reserve call-ups, knowing that only about 20 percent of others showed up due to exemptions or deferments of some sort.¹⁸⁸⁷

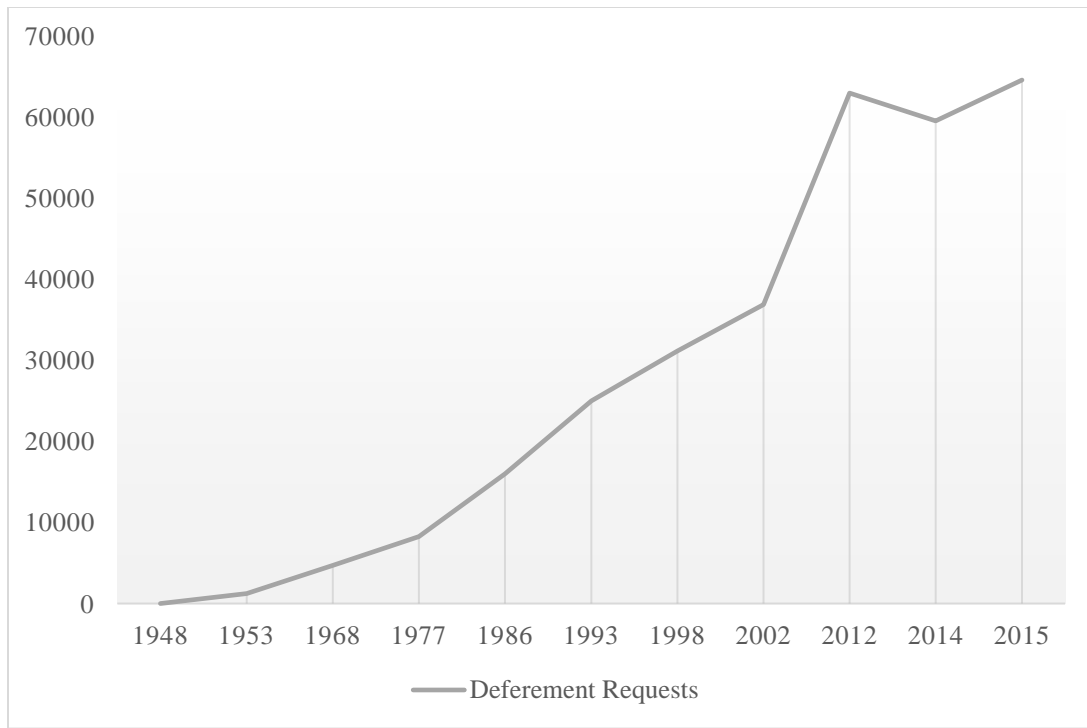
¹⁸⁸³ Erik Schichter, “Reservist Groups Express Outrage Over Latest Service Extension Bill,” *The Jerusalem Post*, 14 March 2003, A3.

¹⁸⁸⁴ Catignani, *Israeli Counterinsurgency and the Intifadas*, 146.

¹⁸⁸⁵ Ibid.

¹⁸⁸⁶ Schichter, “Reservist Groups Express Outrage Over Latest Service Extension Bill,” A3.

¹⁸⁸⁷ Goell, “Reservist Get The Message,” 6.



*Figure 5.2: IDF Deferments*¹⁸⁸⁸

Adding to these frustrations was the fact many employers continued to discriminate against reservists, despite laws that were put in place in the late 1990s to prevent such behavior.¹⁸⁸⁹ One reservist in a 2000 forum with CGS Mofaz revealed how “my boss told me that I was to blame for missing workdays, because everyone knows that anyone who really wants to get out of reserve duty has no trouble doing it, so it must be that I really wanted to be there.”¹⁸⁹⁰ Mofaz himself recalled during the

¹⁸⁸⁸ Library of Congress, “Israel: Military Draft Law and Enforcement,” <https://www.loc.gov/law/help/military-draft/israel.php> (accessed 31 March 2020).

¹⁸⁸⁹ Schichter, “Reservist Groups Express Outrage Over Latest Service Extension Bill,” A3.

¹⁸⁹⁰ Calev Ben David, “Employers’ Attitude to IDF Reservists is Troubling,” *The Jerusalem Post*, 01 December 2000, A4.

same forum that he received reports employers would not hire reservists if they think they did too many training days a year.¹⁸⁹¹

Given these incentives to avoid service, some reservists went absent without leave (AWOL) or refused to deploy.¹⁸⁹² Some were arrested or punished for these violations. But the IDF mostly allowed the incidents to go unpunished, likely hoping to avoid a repeat of the high-profile jailing of reservists that had captured media attention in the 1980s.¹⁸⁹³

To make service more appealing, the IDF and Knesset improved reserve benefits. Soldiers serving over 32 days, for example, received an additional \$27 to \$42 a month.¹⁸⁹⁴ And, for the first time, they received life insurance policies.¹⁸⁹⁵ Additionally, to oversee the improvement and management of the reserve component, the IDF created a Chief Reserve Officer position filled by a Brigadier General.¹⁸⁹⁶

For the first year and a half of the intifada, reserve units mostly played a supporting role. That changed following the Passover Massacre of March 2002, when a Palestinian suicide bomber killed 30 civilians at a celebration in a hotel in Netanya. In response, the Israelis launched Operation Defensive Shield (29 March to

¹⁸⁹¹ Ibid.

¹⁸⁹² Amos Harel, "13 Elite Reservists Refuse to Serve in Territories," *Ha'aretz*, 22 December 2003; Cordesman, *The Military Balance in the Middle East*, 152.

¹⁸⁹³ Catignani, *Israeli Counterinsurgency and the Intifadas*, 139.

¹⁸⁹⁴ Arie Sullivan, "Reservists Welcome Government's Compensation Deal," *The Jerusalem Post*, 25 April 2001, 3.

¹⁸⁹⁵ Ibid.

¹⁸⁹⁶ Catignani, *Israeli Counterinsurgency and the Intifadas*, 148.

10 May 2002)—a massive security sweep that targeted terrorist infrastructure throughout the Palestinian territories.¹⁸⁹⁷ The goal of the operation was to flood Palestinian-held areas with Israeli soldiers to locate and destroy weapons production facilities and arms caches and to uncover documents linking the PA to terrorist attacks.¹⁸⁹⁸ Such a large-scale operation required the assistance of around 28,000 reservists.¹⁸⁹⁹ But unlike before, reserve units participated directly in major sweeps in which they engaged in direct combat alongside conscripts against Palestinian militants.¹⁹⁰⁰

One of the most critical operations that the reserves participated in was the clearing of the Jenin refugee camp between 01 and 11 April 2002. The IDF assigned the mission to the 5th Infantry Brigade (reserve).¹⁹⁰¹ Supporting the 5th Brigade were elements of the 1st Golani Brigade (conscript) along with supporting engineering and armor units.¹⁹⁰²

There were, however, concerns among some Israeli officers regarding the readiness of a reserve brigade for such a difficult assignment.¹⁹⁰³ The unit, for

¹⁸⁹⁷ Ibid., 111.

¹⁸⁹⁸ Ibid.

¹⁸⁹⁹ Nina Gilbert and Herb Keinon, “Ben Eliezer to Ask for More Reservist Call-Ups,” *The Jerusalem Post*, 13 May 2002, 2; Gutman, “Reserves of Strength,” B7.

¹⁹⁰⁰ Cohen, *Routledge Handbook on Israeli Security*, 58; Mofaz, “Operation Defensive Shield: Lessons and Aftermath.”

¹⁹⁰¹ Lou DiMarco, *Concrete Hell: Urban Warfare From Stalingrad to Iraq* (Oxford: Osprey Publishing, 2012), 177.

¹⁹⁰² Ibid.

¹⁹⁰³ Catignani, *Israeli Counterinsurgency and the Intifadas*, 145.

instance, had no training in urban warfare, despite the fact it was tasked to clear an area the size of six city blocks that was home to around 13,000 people.¹⁹⁰⁴ And within that area were hundreds of hardened militants from Islamic Jihad and other groups led by the veteran commander Abu Jandal, who had previously fought in Lebanon and served in the Iraqi army.¹⁹⁰⁵ 5th Brigade was also short of critical equipment, such as body armor and helmets.¹⁹⁰⁶ Much of this was due to budgetary shortages and prioritization of resources to the air force and the conscript army. As one reservist later surmised, “Other than the air force, this is an army that is held together by masking tape and rope and there is always a lack of equipment.”¹⁹⁰⁷ 5th Brigade was also commanded by a colonel who had just been assigned to the unit, meaning he had little to no time to assess what his unit was capable or incapable of doing.¹⁹⁰⁸

The operation began on 03 April when the 340th Division (reserve) established a cordon around the camp. To clear the camp, the Israelis advanced on two avenues: 5th Brigade moving in from the northeast and a battalion of the Golani Brigade advancing from the south.¹⁹⁰⁹ The reservists from 5th Brigade moved slowly and

¹⁹⁰⁴ Tracy Wilkinson, “The Battle that Defines the Israeli Offensive,” *The Los Angeles Times*, 21 April 2002; Gutman, “Reserves of Strength,” B1.

¹⁹⁰⁵ DiMarco, *Concrete Hell*, 177.

¹⁹⁰⁶ Catignani, *Israeli Counterinsurgency and the Intifadas*, 145; Gutman, “Reserves of Strength,” B1, B7.

¹⁹⁰⁷ Catignani, *Israeli Counterinsurgency and the Intifadas*, p. 146.

¹⁹⁰⁸ DiMarco, *Concrete Hell*, 178.

¹⁹⁰⁹ Ibid.

methodically, encountering several hundred IEDs and sniper fire, which killed a veteran company commander of the lead element.¹⁹¹⁰ The death of the commander shocked the reservists, who were not expecting heavy resistance.¹⁹¹¹ The Palestinian militants were also surprised by the fact that the reservists were moving in on foot, not behind the protection of armored vehicles. A captured militant would later recount how "They knew that any soldier who goes into the camp on foot is going to get killed. It baffles me to see a soldier walking in front of me. I've been looking for that for years."¹⁹¹² Faced with such heavy resistance, the reservists slowed their advance to a crawl, moving only about 50 yards a day.¹⁹¹³ The conscripts from the Golani Brigade, meanwhile, advanced in the south, having placed armored bulldozers in the lead to clear IEDs.¹⁹¹⁴

Upset by the slow pace, senior IDF commanders ordered 5th Brigade to increase its tempo on 06 April.¹⁹¹⁵ As the pressure mounted, a company of reservists stumbled into an ambush in a booby-trapped house that killed 13 soldiers—the IDF's

¹⁹¹⁰ Ibid., 177-78; Wilkinson, "The Battle that Defines the Israeli Offensive."

¹⁹¹¹ Staff Writers, "Jenin Combat Began with Gunfire, Ended by Bulldozers," *CNN*, 04 May 2002, <https://www.cnn.com/2002/WORLD/meast/05/04/jenin.combat/index.html> (accessed 30 March 2020).

¹⁹¹² Ibid.

¹⁹¹³ DiMarco, *Concrete Hell*, 180-83.

¹⁹¹⁴ Ibid.

¹⁹¹⁵ Ibid.

largest loss of life in a single day in 20 years.¹⁹¹⁶ IDF special operations units were called in to extricate the remaining reservists and recover the bodies.¹⁹¹⁷

At this point, 5th Brigade adjusted its tactics. To clear the remaining portions of the camp, it placed armored bulldozers, APCs, and tanks in the lead.¹⁹¹⁸ And any resistance encountered was met by tank fire, snipers, and overhead Apache attack helicopters.¹⁹¹⁹ By 11 April, the camp was under control. 30 IDF soldiers—including 23 reservists—died in the operation along with 50 Palestinians.¹⁹²⁰

Ultimately, the battle was a success for the IDF, as the Israelis cleared the camp of terrorist groups and dismantled Islamic Jihad's weapons production facilities and associated caches. But the cost was high for 5th Brigade, which had struggled to adapt to the realities of urban combat. One company commander later recalled how that battle "was not like what we were trained for. It was something else, because on every corner, on every house there were bombs, booby traps, people with bombs on them, [or] mines."¹⁹²¹ The lack of training prior to the battle was undoubtedly a factor in the unit's struggles. But so too was the decision by senior IDF commanders to assign a reserve brigade such a difficult task without proper training and equipment.

¹⁹¹⁶ Gutman, "Reserves of Strength," B1; DiMarco, *Concrete Hell*, 180-83.

¹⁹¹⁷ Ibid.

¹⁹¹⁸ Ibid.

¹⁹¹⁹ Catignani, *Israeli Counterinsurgency and the Intifadas*, 114.

¹⁹²⁰ Gutman, "Reserves of Strength," B1.

¹⁹²¹ Catignani, *Israeli Counterinsurgency and the Intifadas*, 145.

After Operation Defensive Shield, the IDF gradually reduced its reliance on reserve units while cutting the number of days a reservist served in the territories from around 30 days a year to 14.¹⁹²² It did so for four reasons. First, Palestinian attacks declined from a peak of 452 in 2002 to 45 in 2005 following Operation Defensive Shield and subsequent sweeps—a trend that accelerated in part after Israel erected the first segments of the security wall that began to isolate Palestinian communities.¹⁹²³ Second, Israel’s 2005 expulsion of settlers from the Gaza Strip reduced the amount of territory the IDF had to defend.¹⁹²⁴ Third, the IDF shifted its tactics away from large security sweeps to targeted raids and killings launched by highly trained conscripts, the air force, or the intelligence services, which ultimately helped convince Hamas to agree to a ceasefire and put an end to its suicide bombing campaign.¹⁹²⁵ And fourth, the IDF added around 2,000 full-time border police to free reservists of such duties.¹⁹²⁶

As the IDF reduced reservist involvement in security operations, it also made cuts to reservist training and began releasing some at age 40.¹⁹²⁷ These policies were

¹⁹²² Weitz, *The Reserve Policies of Nations*, 106.

¹⁹²³ Cohen, *Routledge Handbook on Israeli Security*, 58; Catignani, *Israeli Counterinsurgency and the Intifadas*, 120; IISS, *Military Balance 2006*, 167.

¹⁹²⁴ IISS, *Military Balance 2006*, 167.

¹⁹²⁵ Catignani, *Israeli Counterinsurgency and the Intifadas*, 108; Bergman, *Rise and Kill First*, 563-64.

¹⁹²⁶ Arieh O’Sullivan, “Reservists Try to Revive Plan to Lessen Duties,” *The Jerusalem Post*, 13 February 2004, 4; IISS, *Military Balance 2010*, 257; IISS, *Military Balance 1998*, 131.

¹⁹²⁷ Yoaz Hendel, “The Reserves Comeback,” *Strategic Assessment*, Vol. 10, No. 4 (February 2008), 38.

part of CGS Moshe “Bogie” Ya’alon’s (2002-05) efforts to streamline the IDF and redirect funding towards modernization programs like the digitalization of IDF command, control, and intelligence systems.¹⁹²⁸ Under Ya’alon, the air force and navy also expanded their ranks, as both became more central to Israeli security doctrine as shown in Table 5.14. At the same time, the IDF was also dealing with budget cuts, as the Israeli economy was in decline due to the global recession and the negative impact of terrorism on Israeli commerce and tourism.¹⁹²⁹ In 2003, for instance, the IDF budget was slashed by around \$1.7 billion to free funding to boost the economy.¹⁹³⁰

Table 5.14 Growth of Israeli Navy and Air Force (Reserve and Active) ¹⁹³¹		
Year	Navy	Air Force
1978	8,000	25,000
1982	10,000	37,000
1986	19,000	37,000
1990	10,000	37,000
1994	12,000	37,000
1998	12,000	37,000
2002	11,500	57,000
2006	23,000	59,000

Faced with declining budgets and high operational costs associated with the Second Intifada, the IDF decided to put a hold on nearly all reserve training in 2003.¹⁹³² As IDF Ground Forces Commander Major General Yiftah Ron Tal explained at the time,

¹⁹²⁸ Marcus, *Israel’s Long War with Hizballah*, 136.

¹⁹²⁹ Catignani, *Israeli Counterinsurgency and the Intifadas*, 42.

¹⁹³⁰ Margot Dudekevitch, “Budget Cuts Force IDF to Halt Training for Reservists,” *The Jerusalem Post*, 06 February 2003, 2; Catignani, *Israeli Counterinsurgency and the Intifadas*, 143.

¹⁹³¹ Data from IISS, *Military Balance* (see previous tables for page numbers).

¹⁹³² Arie O’Sullivan, “Reservists Try to Revive Plan to Lessen Duties,” *The Jerusalem Post*, 13 February 2004, 4.

“The [budgetary] situation has forced us to stop all training exercises for reserve units not because we don’t think they need to train—they must—but because we don’t have the capability to invest in resources.”¹⁹³³ Training cuts continued into 2004 and 2005, falling to the point that reserve units were training around 80 percent less than they were in the early 1990s.¹⁹³⁴ And some conducted no training at all between 2002 and 2005.¹⁹³⁵ Such cuts almost certainly degraded IDF reserve readiness. As one reserve NCO from the time explained, “once I started doing tours and doing less training, I realized my skill deteriorated. I realized I was not fit and accurate. On my last training exercise, I saw how my skills had completely gone.”¹⁹³⁶

The IDF also had to make cuts to conscript training. Brigade and division-level exercises were canceled for much of the Second Intifada due to time and budgetary constraints.¹⁹³⁷ And training for all IDF soldiers shifted from focusing on conventional warfare to counterinsurgency tactics.¹⁹³⁸ Several senior IDF officers worried such changes threatened to erode the IDF’s ability to fight a conventional war or a high-intensity conflict against a more sophisticated non-state actor.¹⁹³⁹

¹⁹³³ Dudekevitch, “Budget Cuts Force IDF to Halt Training for Reservists,” 2.

¹⁹³⁴ Hendel, “The Reserve Comeback,” 37.

¹⁹³⁵ Marcus, *Israel’s Long War with Hizballah*, 136.

¹⁹³⁶ Catignani, *Israeli Counterinsurgency and the Intifadas*, 144.

¹⁹³⁷ Ibid., 193.

¹⁹³⁸ Cohen, *Israel and its Army*, 50.

¹⁹³⁹ Ibid., 49; Matt Matthews, *We Were Caught Unprepared: The 2006 Hezbollah-Israeli War* (Ft. Leavenworth: Combat Studies Institute Press, 2008), 27-28.

The Second Intifada, therefore, was a costly experience for Israel. Ultimately, the IDF succeeded in suppressing the uprising. But doing so reduced the army's effectiveness for conventional operations and accelerated the decline of its reserve component. The war also killed over 1,063 Israelis and injured 7,371 others, most of whom were civilians. For the Palestinians, the toll was even higher: 3,659 dead and 29,035 wounded.¹⁹⁴⁰

The IDF had little time to recover before entering a new conflict with Hizballah in the summer of 2006. As discussed, the IDF had withdrawn from nearly all of southern Lebanon in 2000. Before the withdrawal, over 100 IDF soldiers—including many reservists—died in Hizballah attacks inside the security zone in the 1990s.¹⁹⁴¹ For the most part, the IDF retaliated with airstrikes, artillery fire, and special forces raids, as occurred in 1993 during Operation Accountability and in 1996 with Operation Grapes of Wrath.¹⁹⁴² Such operations, however, were largely ineffective, as Hizballah continued its attacks undeterred and used civilian casualties caused by Israeli airstrikes to boost its popularity among Lebanese Shia.¹⁹⁴³ After the Israeli withdrawal, Hizballah attacks into northern Israel continued. The attack campaign escalated on 12 July 2006, when Hizballah fighters infiltrated northern Israel and ambushed a patrol of Israeli reservists along the Lebanese border. The

¹⁹⁴⁰ Catignani, *Israeli Counterinsurgency and the Intifadas*, 105.

¹⁹⁴¹ *Ibid.*, 240.

¹⁹⁴² *Ibid.*, 68-96.

¹⁹⁴³ *Ibid.*, 69-70.

ambush led to the deaths of three reservists; two others were kidnapped and later died—either in captivity or shortly after the ambush.¹⁹⁴⁴

The new Israeli Prime Minister Ehud Olmert (2006-09) responded forcefully, authorizing a massive aerial campaign to destroy Hizballah's military infrastructure in Lebanon. But the campaign quickly escalated as airpower alone was unable to stop Hizballah rocket attacks into northern Israel. To suppress the rocket fire, Olmert authorized a ground incursion into southern Lebanon that included thousands of reservists.

The war caught the IDF at a transition period under its new CGS, Dan Halutz (2005-07), who was only the second air force general to rise to the IDF's senior-most rank. Shortly after taking over as CGS, Halutz developed the Kushet Plan that aimed to enhance IDF preparedness for low-intensity conflicts, like the Second Intifada, while retaining its capability for conventional warfare.¹⁹⁴⁵ To that end, the IDF invested more heavily in unmanned systems and precision-strike capabilities to pinpoint and attack terrorist targets and conventional military forces.¹⁹⁴⁶ Halutz, moreover, believed that airpower was a decisive force in modern warfare, meaning that Israel could win wars with little to no use of ground forces.¹⁹⁴⁷ That did not mean, however, that ground forces—and reservists—were irrelevant, as they would still need to hold ground and protect Israel from ground incursions. In a May 2006

¹⁹⁴⁴ Matthews, *We Were Caught Unprepared*, 34.

¹⁹⁴⁵ Cordesman, *Israel and Syria: The Military Balance*, 80-81.

¹⁹⁴⁶ Ibid.; Avi Kober in *Routledge Handbook on Israeli Security*, 310.

¹⁹⁴⁷ Avi Kober, "The Israeli Defense Forces in the Second Lebanon War: Why the Poor Performance?" *Journal of Strategic Studies* Vol. 31, No. 1 (February 2008), 22.

speech celebrating reservists, Halutz reminded the reservists that “we still need you and will continue to call on you.”¹⁹⁴⁸

The shift in the Israeli way of war reflected trends in western military discourses of the late twentieth century, which had driven the United States and its allies to develop technologically advanced aircraft and associated weaponry that they believed would enable them to win wars decisively and in short order, thus reducing the need for highly capable ground forces.¹⁹⁴⁹ Helping to build support for this theory was the perceived ability of the United States and its allies to achieve strategic victories primarily through airpower in the 1991 Persian Gulf War and the 1999 campaign in Kosovo.

Historically, Israeli military thinkers rejected techno-centric approaches to warfare, emphasizing instead daring and aggressive leadership by highly trained and highly motivated soldiers and airmen. That vision of warfare—one best exemplified by Israeli military legends like Moshe Dayan and Ariel Sharon—remained prominent in the IDF into the 1990s and 2000s. For instance, in the aftermath of the Persian Gulf War, the commandant of the Israeli Command and Staff College argued that technology “cannot be decisive” in war.¹⁹⁵⁰ Yet by the late 1980s, that view was losing its hold over the IDF, as evidenced by CGS Shomron’s and his successors

¹⁹⁴⁸ Fay Cashman Greer, “We Still Need You,” *Jerusalem Post*, 17 May 2006, 6.

¹⁹⁴⁹ Eitan Shamir discusses how this discourse came to influence the Israelis in the 1990s in *Transforming Command: The Pursuit of Mission Command in the U.S., British, and Israeli Armies* (Stanford: Stanford University Press, 2011), 186-87.

¹⁹⁵⁰ Eliot A Cohen, Michael J. Eisenstadt, and Andrew J. Bacevich. *Knives, Tanks, and Missiles: Israel’s Security Revolution* (Washington, DC: The Washington Institute for Near East Policy, 1998), 64.

emphasis on precision strike capabilities, by how the IDF fought Hamas in Hizballah in the 2000s with a heavy emphasis on targeted airstrikes, and by the appointment of Halutz—an proponent of an airpower-centric approach to warfare—as CGS in 2005.¹⁹⁵¹

This techno-centric approach to warfare was evident in how the IDF first attempted to defeat Hizballah in 2006 through precision air and artillery strikes. In fact, Halutz did not mobilize the army reserves at the start of the war.¹⁹⁵² The problem for Halutz was that airpower could not have the same level of effect on a decentralized and dispersed fighting force like Hizballah as it would a more conventional state army. Unlike most Arab militaries that the IDF previously fought, Hizballah lacked a highly centralized command, control, and communications (C3) network.¹⁹⁵³ Precision strikes against its C3 nodes, therefore, did not significantly erode Hizballah’s cohesion and ability to fight. Hizballah fighters, moreover, were difficult to identify and strike from the air, as they operated mostly as light, dismounted infantry and often while wearing civilian clothes and driving in civilian vehicles.¹⁹⁵⁴ The IAF did manage to destroy much of Hizballah’s medium and long-range rockets systems, but the lighter and mobile short-range rockets and mortar teams were more difficult to locate and destroy.¹⁹⁵⁵ Thus, despite the best efforts of

¹⁹⁵¹ Matthews see *We Were Caught Unprepared*, 24-28.

¹⁹⁵² Shamir, *Transforming Command*, 151.

¹⁹⁵³ Catignani, *Israeli Counterinsurgency*, 193.

¹⁹⁵⁴ Bregman, *Israel’s Wars*, 273-74.

¹⁹⁵⁵ *Ibid.*, 276-78.

the IAF, Hizballah maintained a steady barrage of rockets and mortars against the towns of northern Israel.

Facing pressure to eliminate the rocket threat, CGS Halutz reluctantly authorized a ground incursion into southern Lebanon.¹⁹⁵⁶ The problem was that the IDF in general and the reserves in particular were unprepared for the task, especially considering the little preparation time afforded to them due to pre-war decision not to mobilize the reserves. Around 30,000 reservists eventually entered southern Lebanon starting 21 July 2006.¹⁹⁵⁷ And their poor performance in the ensuing ground battle demonstrated how far the IDF army reserve declined over the previous twenty years.

There were warning signs early in the conflict that the reserves would not be ready for ground operations against Hizballah. In the months leading up to the war, unidentified IDF reserve commanders allegedly requested that their units be removed from patrols along the Lebanese border because of their low state of readiness.¹⁹⁵⁸ Those requests, however, were denied.¹⁹⁵⁹ The IDF simply lacked the human resources to meet its mission requirements without the reserves, especially once the 2006 crisis erupted. To alleviate reservist concerns regarding their readiness—and to reduce the likelihood of protests—the IDF authorized a special pay of \$105 for anyone who had to serve at least eight days on active duty and an additional \$13 for

¹⁹⁵⁶ Bregman, *Israel's Wars*, 280-81.

¹⁹⁵⁷ Weitz, *The Reserve Policies of Nations*, 107.

¹⁹⁵⁸ Matthews, *We Were Caught Unprepared*, 33.

¹⁹⁵⁹ Ibid.

each subsequent day of service.¹⁹⁶⁰ But this could not make up for the fact that the reserves will ill-trained and ill-supplied for war against a highly determined adversary fighting from prepared battle positions and armed with advanced state-manufactured weapons.

The first problem that many reservists faced was that many of their units lacked adequate supplies because their commanders and staff did not know how to move critical sustainment supplies from Israel into Lebanon.¹⁹⁶¹ One Israeli soldier from the Alexandroni Brigade (reserve) later recalled how his unit “went as long as two-and-a-half days with daily rations of a can of tuna, a can of corn, and a couple of pieces of bread—to share between four soldiers.”¹⁹⁶² The same soldier noted how 25 soldiers in his unit “collapsed” due to dehydration.¹⁹⁶³ Others even had to raise money to buy body armor, as their units were unable to supply them with such standard protective gear.¹⁹⁶⁴ After the war, the commander of the Alexandroni Brigade—who was once a fast-rising star in the Israeli reserves—saw his career come to an end prematurely, as his soldiers turned on him and reported their poor state of readiness to the Prime Minister’s Office.¹⁹⁶⁵

¹⁹⁶⁰ Levy, “The Decline of the Reservist Army,” 72.

¹⁹⁶¹ Yaakov Katz, “IDF Plans to Invest NIS 2 Billion to Overall Reservists’ Equipment,” *The Jerusalem Post*, 21 March 2007, <https://www.jpost.com/israel/army-to-upgrade-reservist-equipment> (accessed 10 April 2021).

¹⁹⁶² Larry Derfner, “Lambs to the Slaughter?” *The Jerusalem Post*, 24 August 2006, <https://www.jpost.com/magazine/features/lambs-to-the-slaughter> (accessed 10 April 2021).

¹⁹⁶³ Ibid.

¹⁹⁶⁴ Yaakov Katz and Amir Bohbot. *The Weapon Wizards: How Israel Became a High-Tech Military Superpower*, 14.

¹⁹⁶⁵ Ibid., 14-15.

The second—and more serious—problem was that reservists lacked the necessary skills to fight a well-armed and disciplined enemy. Hizballah’s mobile ambush teams, armed with anti-tank missiles, posed a particular challenge to reservists who were accustomed to fighting poorly equipped Palestinian militants. In combat against Palestinians, soldiers often took shelter inside buildings for cover from small arms fire. But these tactics were dangerous against Hizballah fighters, who could fire precision-guided missiles inside the buildings and cause mass casualties. In one instance, a reserve paratrooper unit huddling in a house suffered nine dead and 31 wounded from a Hizballah anti-tank missile, even though intelligence reporting had warned that unit to avoid sheltering inside buildings.¹⁹⁶⁶ Post-war studies by the IDF Northern Command later concluded that such behavior reflected the fact that as many as 20 percent of IDF reservists deployed to Lebanon lacked sufficient combat training after years of focusing on routine policing tasks in the West Bank, Gaza, or along the Israeli-Lebanese border.¹⁹⁶⁷

By 14 August, the reserves suffered nearly half of Israel’s 117 combat fatalities in the war.¹⁹⁶⁸ These figures suggest a major disparity in the fighting quality of conscripts and reserves, which, as the previous sections highlighted, is unsurprising

¹⁹⁶⁶ Raphael Marcus, “Military Innovation and Tactical Adaptation in the Israel-Hizballah Conflict: The Institutionalization of Lesson-Learning in the IDF,” *Journal of Strategic Studies*, Vol. 38, No. 4 (2015), 520.

¹⁹⁶⁷ Staff Writers, “Report: A Fifth of IDF Reservists Have Poor Combat Readiness,” *Haaretz*, 04 April 2007, <https://www.haaretz.com/1.4814454> (accessed 02 January 2020).

¹⁹⁶⁸ Weitz, *The Reserve Policies of Nations*, 107.

given the relative lack of training that reservists had completed leading up to the war. One reservist later explained to a reporter why his unit was so unprepared for combat:

In the past six years, I've only had a week's training. Soon after we arrived, we received an order to seize a nearby Shi'ite village. We knew that we were not properly trained for the mission. We told our commanders we could control the village with firepower and there was no need to take it and be killed for nothing. Luckily, we were able to convince our commander...For the last six years, we were engaged in stupid policing missions in the West Bank....Checkpoints, hunting stone-throwing Palestinian children, that kind of stuff. The result was that we were not ready to confront real fighters like Hizballah.¹⁹⁶⁹

These struggles contributed to Israel's strategic defeat in the war. The casualties suffered by reserve units due to their poor state of readiness helped turn the Israeli public against the war, leading Prime Minister Olmert to withdraw Israeli ground forces on 14 August after failing to achieve his primary objectives.

Soldiers from across the IDF were disappointed by the war's outcomes, as was the Israeli government, which launched an internal investigation into IDF planning and conduct. These investigations and independent media reports revealed the low level of readiness within the reserves. Many reservists themselves were upset with their performance, prompting some to link their struggles in 2006 to years of

¹⁹⁶⁹ Matthews, *We Were Caught Unprepared*, 49.

neglect of “land forces in favor of the air force” and “high-tech wizardry.”¹⁹⁷⁰ The IDF vowed to improve reservist training after the 2006 Lebanon War, but budgetary and legal constraints following the war limited its ability to do so.

Section 5: Failure to Reverse the Decline

Between 2006 and 2020, the IDF implemented a series of five-year plans that aimed to prepare the IDF—to include the army reserve—for a potential regional war against Iran and its proxies. The 2006 Lebanon War showed how Iranian proxies like Hizballah—trained and equipped by Iran’s Islamic Revolutionary Guards Corps (IRGC)—could pose a significant challenge to the IDF on the battlefield. Iran was also expanding its ballistic missile arsenal, fielding missiles that can reach Israel while helping Hizballah and other proxies develop and improve their own missile programs.¹⁹⁷¹ And following the outbreak of the Syrian Civil War in March 2011, Iran recruited and deployed armed proxies across Syria, some of which launched rocket and UAV attacks into northern Israel.¹⁹⁷²

Table 5.15: IDF Five-Year Plans (2008-Present)		
Five-Year Plan	Dates	Associated CGS
Teffen 2012 Plan ¹⁹⁷³	2007-2012	Gabi Ashkenazi
No five-year plan during this period due to budgetary	2012-2015	Benny Gantz

¹⁹⁷⁰ Yehuda Avner, “A Battalion Commander’s Anger,” *Jerusalem Post Online Edition*, 22 August 2006, <http://www.jpost.com/Opinion/Op-Ed-Contributors/A-battalion-commanders-anger> (accessed 02 November 2015).

¹⁹⁷¹ Staff Writers, “Iran’s Ballistic Missiles,” *CSIS*, 14 June 2018, <https://missilethreat.csis.org/country/iran/> (accessed 04 April 2020).

¹⁹⁷² Staff Writers, “IDF Says Armed Drone Captured By Syria Near Golan was Iranian, Not Israeli,” *The Times of Israel*, 21 September 2019, <https://www.timesofisrael.com/idf-says-armed-drone-captured-by-syria-near-golan-was-iranian-not-israeli/> (accessed 04 April 2020).

¹⁹⁷³ IISS, *Military Balance 2010*, 244.

shortages and conflict in Gaza ¹⁹⁷⁴		
Gideon Plan ¹⁹⁷⁵	2015-2020	Gadi Eizenkot
Tnufa ¹⁹⁷⁶	2020-2025	Aviv Kochavi

The problem the last four IDF CGSs faced, however, was that legal and budgetary constraints prevented them from making meaningful improvements to reserve readiness, leading them to prioritize funding for the conscript army, air force, and missile defense. The biggest legal obstacle the IDF faced was a new reserve law approved by the Knesset in 2008. That law limited the number of days a reserve soldier could serve in three years to 54 days a year for soldiers, 70 for NCOs, and 84 for officers.¹⁹⁷⁷ The Knesset—with support from the Ministry of Defense—drafted the law in response to complaints from reservists who felt overworked due to the high operational tempo of the Second Intifada and the 2006 Lebanon War.¹⁹⁷⁸

To improve reserve readiness within these constraints, the IDF set a goal that 70 percent of the time a reservist was activated would focus on training, as opposed to before, when about 30 percent was training-related. The rest focused on operations or administration.¹⁹⁷⁹ And for the first time, the IDF had to submit yearly reports to the

¹⁹⁷⁴ Amir Rapport, “The New Multi-year Plan of the IDF and the Agreement with Iran,” *Israel Defense*, 09 September 2015, <https://www.israeldefense.co.il/en/content/new-multi-year-plan-idf-and-agreement-iran> (accessed 02 February 2020).

¹⁹⁷⁵ Hadad and Evan, “Do Limited Resources Threaten the IDF’s New Multi-Year Plan,” INSS Insight No. 1195, July 17, 2019, <https://www.inss.org.il/publication/do-limited-resources-threaten-the-idfs-new-multiyear-plan/> (accessed 31 March 2020).

¹⁹⁷⁶ Anna Ahronheim, “New Year, New Multi-Dimensional Combat Unit in the IDF,” *The Jerusalem Post*, 01 January 2020.

¹⁹⁷⁷ Library of Congress, “Israel: Regulation of Military Reserve Service,” *Global Legal Monitor*, 02 March 2008, <https://www.loc.gov/law/foreign-news/article/israel-regulation-of-military-reserve-service/> (accessed 29 March 2020).

¹⁹⁷⁸ Amit, “The Israeli Army’s Big Windfall – Massive Cuts in Reserve Duty.”

¹⁹⁷⁹ Ibid.

Knesset, providing updates on reserve training and readiness.¹⁹⁸⁰ But the limit of just 54 days in three years meant that reservists only trained on average of 18 days a year. And this was problematic because the IDF accelerated its transition into a high-tech army following the 2006 Lebanon War. In other words, reservists had to learn more with less time.

And despite the IDF's lofty training goals, many reservists trained little or not at all between 2007 and 2012 because of budgetary constraints associated with the IDF's continued transition to a higher-tech force. A key driver of these developments was the IDF's so-called Campaign Between the Wars (CBW) Doctrine. That doctrine, which the IDF developed shortly after the 2006 Lebanon War, aimed to use covert and overt means to strike and weaken Israel's enemies—namely Iran and its proxies—to delay their ability to develop capabilities to wage war against Israel.¹⁹⁸¹ Over the past decade, for instance, the IDF has conducted dozens of airstrikes on Hizballah and Iranian targets in Syria to prevent Iran-backed militants from acquiring or developing arms to threaten Israel.¹⁹⁸²

¹⁹⁸⁰ Rebecca Anna Stoil, "Long-Awaited Reserve Law to Finally Pass," *The Jerusalem Post*, 31 March 2008.

¹⁹⁸¹ Eisenkot and Siboni, "The Campaign Between Wars: How Israel Rethought Its Strategy to Counter Iran's Malign Regional Influence," *The Washington Institute for Near East Policy*, 04 September 2019, <https://www.washingtoninstitute.org/policy-analysis/view/the-campaign-between-wars-how-israel-rethought-its-strategy-to-counter-iran> (accessed 01 April 2020).

¹⁹⁸² Yadlin and Orion, "The Campaign Between the Wars: Faster, Higher, Fiercer," *INSS Insight No. 1209*, August 30, 2019 <https://www.inss.org.il/publication/the-campaign-between-wars-faster-higher-fiercer/> (accessed 01 April 2020); Cohen and Huggard, "What Can We Learn from the Escalating Israeli Raids in Syria?" *The Brookings Institute*, 06 December 2020, <https://www.brookings.edu/blog/order-from-chaos/2019/12/06/what-can-we-learn-from-the-escalating-israeli-raids-in-syria/> (accessed 02 April 2020).

To conduct such strikes, the IDF relied on airpower, intelligence operations, and cyber-attacks launched by its new National Cyber Bureau (NCB) established in 2012.¹⁹⁸³ Consequently, the IDF channeled its resources towards sustaining and improving those capabilities.¹⁹⁸⁴ The IDF army reserve, in turn, continued its slide towards near irrelevancy as its capabilities eroded further.

As discussed above, each CGS, except for Benny Gantz, attempted to implement five-year plans to enhance the IDF's ability to support Israel's CBW doctrine. CGS Gabriel "Gabi" Ashkenazi (2007-11) formulated the first of such plans, known as Teffen 2012. A top priority of the plan was to acquire 25 U.S.-made F-35 multirole fighters that could improve Israel's ability to penetrate Syrian airspace and counter Iranian activities.¹⁹⁸⁵ Missile defense was another priority, as the IDF increased investments in the Arrow, David's Sling, and Iron Dome programs to defend against short-range rockets and launched by groups like Hizballah and Hamas and longer-range ballistic missiles from Syria or Iran.¹⁹⁸⁶

Ashkenazi also aimed to improve reserve readiness, considering the poor performance of reservists in the 2006 war. One way the IDF did so was by resuming

¹⁹⁸³ Israel stood up a dedicated cyber warfare capability in 2011, per IISS, *Military Balance* 2014, 326; IISS, *Military Balance* 2017, 384-85.

¹⁹⁸⁴ Staff Writers, "Stand Uneasy," *The Economist*, 20 September 2018, 45.

¹⁹⁸⁵ IISS, *Military Balance* 2010, 244; Cordesman, *Israel and Syria: The Military Balance and Prospects for War*, 91.

¹⁹⁸⁶ Aram Nerguizian, *The Military Balance in a Shattered Levant: Conventional Forces, Asymmetric Warfare, and the Struggle for Syria* (Washington, DC: CSIS, 2015), 54.

live-fire exercises for brigade-level reserve units for the first time since the 1990s.¹⁹⁸⁷ Reserve units also implemented a more rigorous inspection program to document and resolve supply shortages.¹⁹⁸⁸ And in 2017, the IDF announced a \$500 million plan to upgrade reserve equipment to ensure all units were fully stocked with helmets, vests, weapons, and uniforms.¹⁹⁸⁹ That said, the IDF conceded that it lacked the funds to bring reserve units up to the same equipment standards as conscript units, forcing it to purchase second-rate supplies from U.S. surpluses.¹⁹⁹⁰

Ultimately, these reforms proved insufficient, as an IDF Comptroller Report revealed in 2014. Supply and maintenance problems persisted, mainly because the IDF lacked a standard reporting system to document these issues.¹⁹⁹¹ And commanders were cycling out of positions faster than the standard three-year rotation, limiting their ability to assess the state of their units and make decisions to improve them.¹⁹⁹²

The situation did not improve under CGS Benny Gantz (2011-15). During his time as CGS, Gantz confronted severe budgetary constraints that forced him to scale back reserve training even further. The costs of maintaining the reserve, for instance,

¹⁹⁸⁷ Inbar, "IDF Ground Forces' Operational Capability to Increase to 79 Percent," *Israel Defense*, 20 June 2011.

¹⁹⁸⁸ Hendel, "The Reserve Comeback," 39.

¹⁹⁸⁹ Yaakov Katz, "IDF Plans to Invest NIS 2 Billion to Overall Reservists' Equipment," *The Jerusalem Post*, 21 March 2007, 4.

¹⁹⁹⁰ Ibid.

¹⁹⁹¹ Yaron Druckman, "IDF reservists in shabby shape, comptroller says in damning report," *Ynet*, 29 December 2014.

¹⁹⁹² Ibid.

were unsustainable. One reason for this was that the army reserve ballooned from around 380,000 members in 2005 to between 400,000 and 500,000 by the mid-2010s due to high birth rates over the previous two decades and a spike in immigration, as shown in Table 5.16.¹⁹⁹³ The average cost of activating a reservist was also rising due to the aforementioned changes in reserve benefits in the late 1990s and mid-2000s. For example, a 2004 study by the IDF estimated that it cost \$108 a day for a conscript and \$123 a day for an activated reservist.¹⁹⁹⁴

Year	Conscript	Reserve	Full-Time Cadre	Israeli Population
2005	105,000	380,000	20,000	6,930,000
2010	107,000	500,000	26,000	7,695,000
2015	107,000	400,000	26,000	8,462,000
2020	100,000	400,000	26,000	9,092,000

Gantz also had to contend with rising overhead costs associated with the CBW doctrine. IDF spending on personnel was rising as it expanded its cadre of full-time soldiers from 20,000 to 26,000 members between 2005 and 2015, as shown in Tables 5.16 and 5.17.¹⁹⁹⁶ Benefits for all IDF personnel also increased as the IDF sought to attract and retain technical talent. Thus, by mid-2010, personnel costs consumed

¹⁹⁹³ As of 2015, Israel has the highest birthrate among OECD countries (3.1 children per woman compared to an average of 1.5 to 2.0 in other countries). See “Why Are There So Many Children in Israel,” *The Taub Center*, <http://taubcenter.org.il/why-are-there-so-many-children-in-israel/> (accessed 03 April 2020).

¹⁹⁹⁴ Arie O’Sullivan, “Reservists Try to Revive Plan to Lessen Duties,” *The Jerusalem Post*, 13 February 2004, 4.

¹⁹⁹⁵ IISS, *Military Balance 2020*, 357; IISS, *Military Balance 2015*, 332; IISS, *Military Balance 2010*, 255; IISS, *Military Balance 2005*, 193; Jewish Virtual Library, “Population of Israel.”

¹⁹⁹⁶ Gili Cohen, “IDF Proposes \$7.8 Billion Budget - Highest in Israel's History,” *Haaretz*, 21 July 2015.

upwards of 66 percent of the IDF budget, according to a report by the Israeli newspaper *Haaretz*.¹⁹⁹⁷

Table 5.17: IDF Personnel Costs and Defense Imports (1990 to 2015) (2017 USD) ¹⁹⁹⁸		
Year	Total Employee Pay (in billions)*	Defense Imports (in billions)
1990	.15	1.03
1995	.32	1.31
2000	.46	2.61
2005	.50	3.27
2010	.54	2.60
2015	.59	3.60

*Salaries of all IDF defense personnel military and civilian.

The IDF also poured money into expensive weapons programs. Between 2007 and 2012, the IDF submarine fleet grew from three vessels to six.¹⁹⁹⁹ The IDF also expanded and modernized its missile defense systems to counter the threat posed by Iranian and Syrian ballistic missiles and to improve Israeli defenses against short-range rockets fired by Hamas or Hizballah.²⁰⁰⁰ During this period, the IDF purchased its first F-35 aircraft, which were delivered to Israel in June 2016.²⁰⁰¹ As the IDF purchased expensive high-tech equipment like the F-35, defense expenditures and U.S. military aid remained relatively flat, as shown in Table 5.18.

¹⁹⁹⁷ Motti Bassok, “Secrets of the Defense Budget Revealed,” *Haaretz*, 21 October 2010.

¹⁹⁹⁸ Israel Central Bureau of Statistics, “Defence Expenditure in Israel,” July 2017, 29, https://www.cbs.gov.il/he/publications/DocLib/2019/1758/e_print.pdf (accessed 02 April 2020).

¹⁹⁹⁹ Shiffer, “Israel Buys Dolphin Submarine,” *Ynet*, 05 May 2011; Staff Writers, “IDF’s New Submarine Model to Be Named After Loss INS Dakar,” *The Jerusalem Post*, 11 October 2018.

²⁰⁰⁰ Jeremy J. Sharp, “U.S. Foreign Aid to Israel,” *Congressional Research Office*, 10 June 2015, 12, <https://www.fas.org/sgp/crs/mideast/RL33222.pdf> (accessed 27 August 2016).

²⁰⁰¹ Staff Writers, “F-35 for Israel,” *Lockheed Martin*, undated, <https://www.lockheedmartin.com/en-us/products/f-35/f-35-global-partnership/f-35-israel.html> (accessed 04 April 2020).

Table 5.18: Israeli Defense Spending (2005-2018) (Current USD\$) ²⁰⁰²				
Year	Defense Spending as Percent of GDP	Israeli GDP (billions)	Estimated Expenditure (billions)	U.S. Aid (billions)
2005	7.68	143.53	10.92	2.61
2010	6.24	234.00	14.61	2.80
2015	5.64	299.81	16.97	3.11
2018	4.34	370.59	15.94	~3.8

To save money, Gantz made cuts to the reserve. In 2013, he canceled reservist deployments to the West Bank.²⁰⁰³ And a year later, he canceled all reserve training, citing “unprecedented financial constraints.”²⁰⁰⁴ Due to these cuts, the State Comptroller warned in 2014 that reserve’s ability to mobilize rapidly and efficiently was declining.²⁰⁰⁵ The report added, “Despite the threat increasing and the strategic importance of reserve forces in war, we found failures, some of them substantial, in the amount of investments made to improve the readiness of reserves to fulfill their duties under such conditions.”²⁰⁰⁶ In other words, efforts to reverse the decline of the IDF reserve since the 2006 Lebanon War were failing.

The next CGS, Gadi Eizenkot (2015-19), took a different approach to reserve reform. In Eizenkot’s estimation, the ground forces in general and the reserves in particular were in a bad state, requiring “a deep change” so that the IDF could carry

²⁰⁰² World Bank, “Military expenditure (% of GDP) – Israel;” World Bank, “Israel GDP;” World Bank, Military expenditure (current USD); Jewish Virtual Library, “U.S. Foreign Aid to Israel.”

²⁰⁰³ Yaakov Lappin and Lahav Harkov, “IDF Cancels all Operational Duty for Reserves,” *The Jerusalem Post*, 03 June 2013.

²⁰⁰⁴ Staff Writers, “All Israeli Army Reserve Training Cancelled for 2014,” *The Times of Israel*, 20 May 2014.

²⁰⁰⁵ Yaakov Lappin, “IDF Has Improved Ability to Call Up Reserves Under Fire,” *The Jerusalem Post*, 27 November 2014.

²⁰⁰⁶ Ibid.

out its missions effectively.²⁰⁰⁷ To improve the reserve, he focused on enhancing the readiness of select units as part of his larger five-year plan known as the Gideon Plan. To do so, he cut the reserve component by 100,000 soldiers, freeing funds to enhance remaining units.²⁰⁰⁸

For those remaining units, the IDF implemented a tiered readiness system. Under this new system, which was implemented by 2014, maneuver brigades (infantry, armor, and mechanized infantry) received priority for training. The goal was for maneuver units to train so that they would be ready for deployment in the third year of their training cycle—a system that is similar to the U.S. Army National Guard’s five-year readiness cycle discussed in chapter 3.²⁰⁰⁹ Within this training cycle, infantry units conducted a complex field exercise every other year, while armor units completed such exercises every year.²⁰¹⁰ In short, the IDF transformed how it managed its reserve in response to fiscal and operational pressures that compelled its leadership to shrink the size of the force and prioritize some units over others.

Eizenkot also increased the intensity of conscript unit training, returning to a “17-17” cycle of 17 weeks of training and 17 weeks of operational deployments—a practice abandoned in 2000 in response to requirements from the Intifada.²⁰¹¹ And, in

²⁰⁰⁷ Amos Harel, “If Israel Had to Enter Gaza Today, the Israeli Army Would Have a Big Problem,” *Haaretz*, 02 September 2018.

²⁰⁰⁸ Harel, “The Israeli Army’s New Target: Itself,” *Haaretz*, 06 June 2015.

²⁰⁰⁹ Lappin, “IDF Ground Forces Reserve Training in Multiple Potential Scenarios,” *The Jerusalem Post*, 22 March 2013.

²⁰¹⁰ *Ibid.*

²⁰¹¹ Amos Harel, “Retired General’s Solution to Israeli Army’s Flaws: Fewer Tanks, More Training,” *Haaretz*, 03 February 2018.

2017, conscript and reserve units conducted first-ever corps-level exercise in nearly two decades to prepare for a potential war against Hizballah and its allies.²⁰¹²

Operational demands due to rising tensions with Hamas in the Gaza Strip, however, cut into training. As one mid-ranking IDF official complained to the *Economist* in mid-2018.²⁰¹³ “It’s true that the tempo of exercises have gone up...” but they are often disrupted “by urgent duty when Palestinians begin rioting in Gaza or in the West Bank.”²⁰¹⁴

Improved training was necessary in part because of a decline in conscript service time. In 2015, the Knesset approved of a reduction in conscription terms from 36 months to 32, enabling it to shrink the conscript army from 107,000 to 100,000 members by 2019.²⁰¹⁵ Further cuts occurred in July 2020, when requirements fell to 30 months as the Ministry of Finance sought to boost the economy by getting young Israelis into the workforce quicker.²⁰¹⁶ But the conscription terms almost certainly harmed conscript and reserve readiness as reservists would have four fewer months of

²⁰¹² Amos Harel, “Israeli Army Can Defeat Hizballah in Massive Drill, but Reality Is More Complicated,” *Haaretz*, 06 September 2017.”

²⁰¹³ Staff Writers, “Stand Uneasy,” *The Economist*, 22-28 September 2018, 44-45.

²⁰¹⁴ Ibid.

²⁰¹⁵ IDF, *Military Service (7th Edition)*, 44, http://archive.moia.gov.il/Publications/idf_en.pdf (accessed 31 March 2020); IISS, *Military Balance 2018*, 40; Hadad and Evan, “Do Limited Resources Threaten the IDF’s New Multi-Year Plan,” INSS Insight No. 1195, July 17, 2019, <https://www.inss.org.il/publication/do-limited-resources-threaten-the-idfs-new-multiyear-plan/> (accessed 31 March 2020); Harel, “Israeli Army’s Next Front: A War With the Treasury Over Military Budget,” *Haaretz*, 17 June 2019.

²⁰¹⁶ Yoav Limor, “The Dangers of Shortening Compulsory Service,” *Israel Ha’Yom*, 03 July 2020.

active duty experience before their discharge into the reserves. Intensified peacetime training, the IDF likely calculated, could compensate for some of that lost time.

Table 5.19: IDF Conscription Terms ²⁰¹⁷	
Period	Terms
1948 to 2015	36 Months
2015 to 2020	32 Months
2020 to Present	30 Months
Exceptions: Terms are 24 months for unmarried women (married women exempted). Male immigrants who arrived in Israel after age 27 only serve 20 months. Officers generally serve at least 48 months. Those who serve in the special forces or other specialized units may serve four years or more.	

Yet, like his predecessors, Eizenkot was unable to reverse the decline of the reserve. Units were supposed to drill around two weeks a year, but in reality, they were only drilling about five days a year to save money.²⁰¹⁸ And in some cases, that training was not productive. As one reservist claimed, to call it “five days is a bit of an exaggeration. We begin training seriously only on Sunday afternoon. From Thursday morning we’re busy doing what we have to do to go home, and by midday, you can no longer find a single professional soldier left at [the base]...”²⁰¹⁹ Such condensed training schedules do not allow for a soldier to retain their soldiering skills or learn new ones. In the words of one Israeli reservist, “What level of professionalism can you reach? There’s no way to learn and assimilate combat

²⁰¹⁷ IDF, *Military Service (7th Edition)*, 44; IISS, *Military Balance 2018*, 340; Yoav Limor, “The Dangers of Shortening Compulsory Service,” *Israel Ha’Yom*, 03 July 2020.

²⁰¹⁸ Amos Harel, “Today, the Israeli Army Plans With Bravado but Executes With Fear”, *Haaretz*, 29 December 2018; Amit, “The Israeli Army’s Big Windfall – Massive Cuts in Reserve Duty.”

²⁰¹⁹ Harel, “Today, the Israeli Army Plans With Bravado but Executes With Fear.”

doctrine or new technology this way. Would you trust a doctor who works in his profession only five days a year?”²⁰²⁰

This situation is unlikely to improve soon. The current CGS Aviv Kochavi (2019-present) doubled down on the IDF’s plans to transition to an army of technicians backed by a reserve used mostly in rare emergencies or combat support. Kochavi’s five-year plan—called *Tnufa* (Momentum)—went into effect in early 2020.²⁰²¹ Like previous five-year plans since 2006, *Tnufa* focuses on developing and enhancing Israel’s capabilities to fight Iran and its regional proxies.²⁰²² But unlike previous plans, Kochavi is placing a greater emphasis on the army. Specifically, he is attempting to enhance army readiness for urban warfare against groups like Hizballah by improving the passive and active protection systems aboard Israeli tanks and APCs.²⁰²³ Additionally, to strengthen overall Israeli precision strike capabilities, Kochavi aims to double the number of precision-guided munitions in the Israeli arsenal by 2025.²⁰²⁴ Such capabilities will be incorporated into planned multi-domain units that integrate air, cyber, and ground capabilities.²⁰²⁵ These units, moreover,

²⁰²⁰ Ibid; Hadad and Evan, “Do Limited Resources Threaten the IDF’s New Multi-Year Plan,” INSS Insight No. 1195, July 17, 2019, <https://www.inss.org.il/publication/do-limited-resources-threaten-the-idfs-new-multiyear-plan/> (accessed 31 March 2020).

²⁰²¹ Ahronheim, “New Year, New Multi-Dimensional Combat Unit in the IDF.”

²⁰²² Hadad and Evan, “Do Limited Resources Threaten the IDF’s New Multi-Year Plan.”

²⁰²³ Anna Ahronheim, “IDF Appoints General to Lead New Iran Command as Threat Escalates,” *The Jerusalem Post*, 13 February 2020.

²⁰²⁴ Ibid.

²⁰²⁵ Ahronheim, “New Year, New Multi-Dimensional Combat Unit in the IDF;” Judah Gross, “In 1st drill, IDF’s Ghost Unit tests out new tactics with jets, tanks and robots,” *Times of Israel*, 23 July 2020.

will have enhanced intelligence and command and control capabilities that incorporate artificial intelligence to more rapidly sort through raw data to enable improved situational awareness and targeting.²⁰²⁶

Combat reserve units seemingly have small roles to play in the future army envisioned by Tnufa. Reservists simply lack the time and resources to keep up with these changes. And with a constrained defense budget, which Prime Minister Netanyahu wants to keep at or below 7 percent of GDP until at least 2030, the IDF will almost certainly lack the capability to ramp up reserve training.²⁰²⁷

The army reserve, therefore, will continue to play a reduced supporting role for the foreseeable future, as evident by their assigned roles in recent conflicts in the Gaza Strip. Since the end of the 2006 Lebanon War, the IDF conducted three major operations against Hamas in the Gaza Strip: Operation Cast Lead (2008-09), Operation Pillar of Defense (2012), and Operation Protective Edge (2014). In each operation, reservists were mobilized but kept mainly on the sidelines. During Operation Cast Lead, for instance, the IDF mobilized 10,000 reservists. But they were mostly used to hold areas that the conscript units had already cleared.²⁰²⁸

²⁰²⁶ Judah Gross, “Readiness and Change: Kohavi Reveals His Expensive Plans for the IDF,” *Times of Israel*.

²⁰²⁷ Yuval Azulai, “IDF’s future vision mired in budgetary uncertainty,” *Globes*, 07 October 2019.

²⁰²⁸ Harel, “Today, the Israeli Army Plans With Bravado but Executes With Fear.”

For Operation Pillar of Defense in 2012, the IDF activated 57,000 reservists.²⁰²⁹ The vast majority, however, were placed in supporting roles defending the border with Lebanon or to the West Bank, allowing conscript units to fight Hamas in Gaza.²⁰³⁰ That operation also revealed the vulnerability of reserve mobilization stations to rocket fire, while underscoring continued shortfalls in essential protective equipment. As one reserve officer recalled:

thousands of reservists stationed there had no sufficient means of protecting themselves against the rocket fire. Only a handful of shelters and a few APCs were allocated to each battalion. One of the salvos hit about 300 meters on both sides of a prefabricated hut with a tin roof, which housed hundreds of troopers at that moment. Miraculously, this did not end in a catastrophe... When the subsequent salvos landed, the situation was in no way better. Some of the troopers promptly took cover in water drainage ditches, others crawled under military field cots, the rest remained helplessly where they were and hoped that the missiles would impact somewhere else.²⁰³¹

²⁰²⁹ Rand Corporation, *From Cast Lead to Protective Edge: Lessons from Israel's Wars in Gaza* (Washington, DC: RAND Corporation, 2017), 48.

²⁰³⁰ Ibid., 49.

²⁰³¹ Staff Writers, "IDF Reservists in Operation Pillar of Defense: Highly Motivated, Poorly Protected," *Israel Defense*, 19 January 2013, <https://www.israeldefense.co.il/en/content/idf-reservists-operation-pillar-defense-highly-motivated-poorly-protected> (accessed 03 January 2020).

Two years later, during Operation Protective Edge, the IDF mobilized 86,000 reservists.²⁰³² And again, most were placed in supporting roles guarding the border or sites in the West Bank.²⁰³³ But this time, some reserve units also participated in ground operations inside Gaza. One such unit, however, had 30 soldiers refuse to go because they feared their older vehicles lacked enough armored protection.²⁰³⁴ Nevertheless, several reserve armored companies did accompany the 84th Infantry (Givati) Brigade into Gaza, providing critical firepower to enable the conscript infantrymen to maneuver.²⁰³⁵ Conscripts from the elite 36th Armor and 160th Armor Divisions, however, were the lead elements for the operation, shouldering the burden of clearing the most contested areas in Gaza.²⁰³⁶

Despite Israel's demonstrated need for reservists in Operation Protective Edge, some Israeli commanders downplayed the importance of the reserve in recent years. In 2018, for instance, Brig. Gen. (Res.) Shuki Ben-Anat (head of IDF reservists from 2008 to 2013) claimed that "Currently the army's main areas are cyber warfare and precision warfare, for which reservists are less needed."²⁰³⁷ However, the wars with Hamas since 2006 and the enduring conflict with Iran also

²⁰³² Yaakov Lappin, "IDF Mobilizing 10,000 Reservists After Israel Targets Senior Hamas Commanders," *The Jerusalem Post*, 21 August 2014.

²⁰³³ Ibid.

²⁰³⁴ Ben Hartman, "Report: Dozens of IDF Reservists Refuse to Enter Gaza," *The Jerusalem Post*, 23 July 2014.

²⁰³⁵ Rand Corporation, *From Cast Lead to Protective Edge*, 116.

²⁰³⁶ Ibid., 86, 111.

²⁰³⁷ Amit, "The Israeli Army's Big Windfall – Massive Cuts in Reserve Duty."

demonstrate that Israel's conscript army is still too small to fight without the reserves, especially if those conflicts erupted into a larger regional war that forced the IDF to commit ground forces to defend its borders. As one IDF senior officer conceded in discussions with military reporters in 2001, "There was talk of creating a professional military [in the 1990s]. But we don't know how a country with a population of six million would be able to hold a permanent army of a size that meets our strategic needs...[we] still need thousands of tanks and artillery and infantry, and we can't keep an army like that without reserves."²⁰³⁸

Section 6: Conclusion

The IDF mitigated the challenges posed by the reserve dilemma in the 1960s and 70s by ensuring all reservists had served at least three years on active duty, were led by veteran commanders, and trained 30 days or more a year. But changing military, societal, and political conditions within Israel and across the greater Middle East deprived the IDF of the budgetary resources, political capital, and societal support to keep that formula viable beyond the early 1980s. Thus, by the early 2000s, the IDF reserve was training only a few days a year or not at all, even though the intellectual demands of soldiering were rapidly rising as the IDF embraced a high-tech and high-skilled form of warfare. Reserve leaders were still veterans in many cases, but they lacked the same levels of combat experience as earlier generations of Israeli commanders. And reservists still served on active duty as conscripts first, but by the mid-2000s, conscript terms were falling from 36 months to 32 and declined

²⁰³⁸ O'Sullivan, "Reservists' Burden to Be Eased," *The Jerusalem Post*, 23 August 2001, 2.

even further in 2020. These falling training and personnel standards caused the IDF reserve to struggle in combat during the Second Intifada and the 2006 Lebanon War. And in the conflicts that followed, the IDF sidelined its reservists in favor of full-time soldiers and the air force—a far cry from the 1960s and 70s when reserve army brigades and divisions spearheaded key offensives that sealed victories for Israel.

In short, the people’s army that captured the world’s attention in 1967 and 1973 was no more by the end of the twentieth century. In its place is a smaller and technologically advanced army of professionals and conscripts that specializes in precision strikes against terrorists and more distant threats from Iran and others. This new Israeli army excelled in such missions in recent years, destroying Iranian weapons depots in Syria and eliminating key terrorist leaders in Gaza and elsewhere.²⁰³⁹ But as the IDF discovered in 2006, this smaller technical army was ill-suited for a protracted conflict, like the Second Intifada, or a war in which the IDF suffers heavy attrition, as occurred in 1973. In such circumstances, the IDF would almost certainly have to turn to its reservists, as it did during Israel’s formative wars. But the reservists today are shadows of their former selves due to decades of neglect and decline. Consequently, as one Israeli commander worried in 2019, the decline of the reserves “could gravely affect the army’s readiness for the next battle.”²⁰⁴⁰

²⁰³⁹ Cohen and Huggard, “What Can We Learn from the Escalating Israeli Raids in Syria?”

²⁰⁴⁰ Anna Aronheim, “IDF Cancels Drills for Reservists Over Budget Problems,” *The Jerusalem Post*, 14 August 2019.

Conclusions

“Knowing yourself means knowing what you can do; and since nobody knows what he can do until he tries, the only clue to what man can do is what man has done.”

R.G. Collingwood²⁰⁴¹

Over the past century, army reserve training and personnel models developed in the mid to late 19th century largely proved incapable of providing reservists with the skills and experiences necessary to meet the rising technical and tactical demands of warfare. The two main reserve models employed by armies since the 19th century—the Prussian model built around discharged conscripts and the Anglo-American around volunteers—generally provided reservists with only one to four weeks of annual training. Such standards developed for the mass infantry armies in the 19th century simply did not provide reservists—and reserve units above the company-level in particular—with the time to develop individual and collective skills to thrive on the mechanized battlefields of the 20th and 21st centuries. Consequently, reservists struggled to fight effectively compared to active-duty soldiers in the wars of the past century, unless given veteran supervision and substantial pre-deployment training. In short, the qualitative gap that long separated reservists and active soldiers widened following WWI, after having briefly narrowed due to tactical, technological, and training innovations introduced by the Prussians and others in the mid to late 19th century. And the ability or inability of armies to recognize and respond to the potential shortcomings of their reserve models risked military misadventure, like the

²⁰⁴¹ R.G. Collingwood, *The Idea of History* (New York: Oxford University Press, 1994), 10.

Israelis experienced in the 2006 Lebanon War, or even national collapse, as was the case for France during WWII.

The widening qualitative gap between reservists and active soldiers resulted from a convergence of financial, military, and technological factors and broader political, socio-economic, and cultural influences. During WWI, industrial weapons like the machine gun and rapid-fire artillery forced armies to devolve command and control to junior and mid-ranking officers and NCOs who controlled increasingly dispersed and flexible formations armed with a more diverse array of weapons. Such developments were necessary for ensuring soldiers could survive on the battlefield and make tactical gains. Those trends accelerated after WWI, as armies mechanized and increased their integration with air forces and, more recently, with electronic warfare and cyber capabilities. In this context, armies had to rely more on high-skilled technicians who could devote substantial time to learn how to operate, maintain, and integrate these weapons and associated support systems. But reservists—training just 30 days or less a year—struggled to find time to keep up with these developments.

Nevertheless, armies preparing for major war could not simply reduce their dependency on reservists. In some instances, political and cultural compulsions forced military planners to maintain their reserve models and continue to integrate reservists into combat operations, even when it was not militarily prudent to do so.²⁰⁴² But the main reasons for the continued dependency on 19th century reserve models

²⁰⁴² For example, see chapter 3 discussion of how guard supporters in Congress forced the military to put guard divisions in combat missions in the Korean War and efforts—albeit unsuccessful—to deploy guard maneuver brigades to Iraq in 1991.

were financial and military in nature. From a financial perspective, armies had to contend with rising overhead costs in the past century as they developed new, high-tech, and expensive arms and support systems and as they had to recruit, train, and retain high-skilled technicians who demanded higher pay and better benefits. Those developments prevented armies from growing their active duty ranks to reduce their reliance on reservists. And mass abandonment of conscription practices across the globe in the past 50 years further reduced army's ability to fight without reservists, especially as many conflicts during this period, such as the U.S. wars in Iraq and Afghanistan, protracted and, consequently, exhausted or overextended standing armies.

Boosting reserve training time and standards was also challenging. Doing so required increased defense spending to provide more time and resources for reserve training. And as shown throughout this dissertation, states generally were apprehensive about spending more on their reservists, especially as they dealt with rising overhead costs for their active armed forces. Boosting reserve training also meant recalling reservists from their civilian lives more frequently, which can generate a multitude of challenges. It could, for instance, undermine civilian industries, as the French learned in the lead-up to WWII and as the Israelis learned in 1967 and 1973, that depended on them for labor or inadvertently send signals to adversaries that war is imminent. And reservists themselves sometimes resented having to shoulder a greater military burden given the pressures it produced on their civilian lives, creating an environment for disciplinary problems that could—and

sometimes did—cause political troubles for defense officials.²⁰⁴³ In short, many armies remained dependent on reserve forces, despite their questionable quality compared to active soldiers, due to a host of financial, military, and political constraints and compulsions.

This situation presented defense policymakers with a dilemma, as they considered how best to structure, train, and employ their reservists. At the center of that dilemma was the question of how best to balance the tradeoff of the minimal skills a reservist needed to perform his/her job adequately and the acceptable military and political costs of his/her inability or ability to meet those standards. The importance of this dilemma—and its associated risks—became apparent during the world wars.

During WWI, recalled reservists for most of the great powers proved to be poor replacements for active soldiers because they had insufficient peacetime training to prepare their bodies and minds for the rigors of a shockingly violent and protracted conflict and to hone their ability to fight in looser open order formations that became essential for surviving on a highly lethal battlefield. For the main combatants at the early stage of the war, that problem was exacerbated by the fact that reservists had little to no time to complete pre-combat training in the late summer and fall of 1914. Thus, in the opening phases of WWI, many reservists broke down physically during long road marches and demonstrated a limited ability to fight without close supervision from active officers.

²⁰⁴³ The best example are the Israeli reservists who led anti-government protests over the handling of the Lebanon War and the First Intifada in the 1980s.

To address these readiness issues, armies generally employed one of five methods (or a combination), as summarized in Table 6.1 below. And in the conflicts that followed WWI, states continued to employ similar methods in response to the reserve dilemma, as the previous chapters showed. Each method, however, carried its own potential risks and benefits and, at times, was only feasible because of unique historical circumstances.

Table 6.1: Historical Examples of Policy Responses to the Reserve Dilemma				
Method	Exemplars	Potential Drawbacks/Constraints	Potential Advantages	Key Enabling Conditions
1. Cadre Approach – Reservists Led By Veteran Full-Time Personnel	German Army in WWI and WWII; Israeli Army 1948 to Present	Resource intensive – may require large and well-trained cadre of NCOs and officers	Part-time soldiers have the veteran leadership of active soldiers to oversee training and operations	High levels of nationalism that enabled high defense spending and convinced many to devote considerable time and resources to military pursuits
2. Extend Reserve Training Beyond the Typical One to Four Weeks a Year in Peacetime	ARNG since 1973; IDF army reserves in the 1960s and 70s; Select elements of the Iranian Basij militia since 2007	Threatens to reduce cost savings advantage of reservists; can stress reservists' civilian employers and family lives	Reservists have more time to learn and master the complexities of modern warfighting tactics and technologies	High defense spending to fund additional training; reservists who had the will and ability to devote additional time to military pursuits
3. Reorganize and Retrain Reserve Prior to Deployment	British Territorials in WWI; ARNG in World Wars and Korea	Reservists unready to deploy rapidly; active officers and NCOs must be diverted from their units to supervise intensive reserve retraining	Can ensure that reservists more closely meet the standards of active soldiers prior to deployment; time to purge and replace poor performing reservists	Geographic separation from battlefield; time and resources to devote to intensive reserve training period; cadre of active officers and NCOs to oversee training programs; draft or widespread volunteerism to replace poor performing reservists

4. Fight Without Reserves or Place Reservists Primarily in Supporting Roles/Homeland Defense	Russian Army in WWI; Soviet Army in Cold War; the U.S. Army in the 1950s; Israeli Army 2006 to Present	Lack of strategic depth in personnel if active army proves incapable of handling missions on its own; high defense spending to field and maintain large standing army	Do not have to rely on potentially undertrained reserve soldiers for combat operations; reduce disruption to civilian industries by reducing need for recalled reservists	Conscription and high defense spending to build and maintain large standing army or (in the case of Israel) a high-tech force that can achieve many objectives through airpower and limited ground incursions
5. Ignore Reserve Readiness Issues – Maintain 19 th Century Training Models with Minimal Changes	Austro-Hungarian Empire 1914; France in 1930s; Israeli Army in 1990s; Iranian military in the 1980s	Reserves may be woefully unprepared for combat and unable to serve as viable substitutes for active soldiers; reserve casualty rates likely to be very high	Less likely to incur higher overhead costs in peacetime (i.e., no enhanced reserve training initiatives)	Political-military leadership distracted, unable and/or unwilling to invest resources and time into reserve readiness issues; confidence that reservists can muddle through or that their poor performance will have minimal strategic or tactical effects

The Germans, for instance, used a cadre system that assigned active duty officers and NCOs to reserve units. Such veteran supervision helped compensate for the relative inexperience of rank-and-file reservists and ensured that most German reserve units could fight at or near the same standards as ones composed primarily of conscripts. German reservists also trained more frequently in peacetime than their counterparts in other armies, providing additional opportunities to refresh soldiering skills gained as conscripts.

The Americans, meanwhile, took advantage of their geographic isolation from the battlefields of WWI to completely reorganize and retrain their reservists (the NG)

prior to deployment. Once in Europe, they continued to train for weeks or months under the supervision of active duty officers and battle-hardened allies. During this period, reserve officers found lacking in leadership or physical abilities were replaced by veterans or newly commissioned officers. In other words, the U.S. Army essentially transformed its reservists into trained conscripts. The Americans used a similar formula for building an effective reserve during WWII and, to a lesser extent, in the Korean War. But U.S. Army could only do so because geography afforded it the luxury of not having to commit the bulk of its forces to combat immediately after the United States entered the war, unlike its allies and adversaries in Europe.

Many states, however, did not take substantial steps to improve their reserve formations in the lead-up to and during the world wars. And their failure to do so produced catastrophic results. In the years leading up to WWI, the Austro-Hungarian Empire and Italy allowed their reserves to atrophy due to budgetary, political, and socio-economic constraints. And both nations did little to compensate for that decline, thrusting undertrained and physically unfit reservists into combat in 1914 and 1915 with devastating results. Similarly, France allowed its reserves to fall into a state of disrepair in the decade leading up to WWII, despite the fact their national defense plans rested on the readiness of reservists. When called to fight, the reserves were not up to the task, contributing to the downfall of France in June 1940.

Following the world wars, armies continued experimenting with methods to address the widening qualitative gap between reservists and active duty soldiers. Some, like the Soviet Union, decided to keep reservists largely in support roles, hoping to achieve wartime objectives with a massive conscript force (see Appendix A

for more details). But doing so required mass conscription and heavy spending on military programs, which proved unsustainable in the long run. Others, like the United States in the 1950s and early 60s, sought to prevent and—if necessary—wage wars primarily with air, missile, and naval forces, keeping reservists in supporting roles on the home front.

In the latter half of the Cold War, the United States took a different approach, as it aimed to develop the capability to deter and, if necessary, defeat the Soviet Union primarily with conventional ground and air forces in Europe. And it had to do so without peacetime conscription after 1973, forcing it to draw more heavily on the ARNG and USAR. The problem, however, was that ARNG combat units were unprepared for such new roles, having spent the previous decade focused on homeland defense.

To enhance guard readiness, the U.S. Army established intensive peacetime training programs for select units, requiring them to train beyond 30 days a year. During a crisis, guard units continued to receive intensive pre-deployment training that could extend for several weeks or more. Yet these programs still proved inadequate, as guard combat units mobilized for the 1991 Persian Gulf War and during the Second Iraq War struggled to conduct operations above the company or battalion level. Intensified peacetime training also reduced the cost savings advantages of guard units compared to active ones. And the added training burdens placed on guardsmen caused some discontent in the ranks that led to disciplinary problems in 1991 and recruitment and retention issues during the early 2000s. Today, the United States continues to wrestle with the challenges of the reserve dilemma as it

seeks to maximize the use of guard units to ensure the U.S. Army can generate sufficient combat power to deter threats from Russia and China and to support contingency operations against lower-tier threats elsewhere.²⁰⁴⁴

In the mid-twentieth century, the Israelis fielded perhaps the most capable reserve force in history. Unlike other armies that kept reservists largely in supporting roles, the IDF used reservists to spearhead successful ground campaigns during a series of wars fought between 1948 and 1973. And Israeli reservists were able to accomplish such a feat within just one to three days of mobilization.

The key to Israel reserve's successes was their cadre system that, like the German reserve system of the world wars, provided reserve units with active duty leadership at the brigade level and above. Additionally, all Israeli reservists had around three years of active service as conscripts (four years or more for officers) and trained 30 days or more annually once discharged under the supervision of full-time officers and technicians. The Israelis also benefited from the fact that their opposing armies were commanded by amateur officers who were incapable of fully realizing the military potential of their Soviet-supplied arms and their highly motivated, but poorly trained, soldiers.

The conditions that enabled the success of the Israeli reserve system did not last beyond the 1970s. In the 1980s and 90s, the IDF had to cut reservist training time by 50 percent or more in some cases, which led to a steep decline in Israeli reserve readiness. It did so because operational demands forced IDF leaders to

²⁰⁴⁴ See mission statement of 1st Army—which is responsible for overseeing the mobilization of ARNG and USAR units in wartime—at First Army, “Mission,” <https://www.first.army.mil/content.aspx?ContentID=199> (accessed 15 November 2020).

deploy reservists to the Palestinian territories or Lebanon to assist with routine security tasks that the active army could not cover on its own. These remedial tasks and the unpopularity of Israel's war in Lebanon led to a decline in reservist morale and willingness to serve, which created pressures on Israeli policymakers to reduce reserve training time. IDF senior leadership in the 1990s was also amenable to such reductions, as they sought to build a smaller and more efficient military to confront increasingly high-tech threats from Iraq and Iran.

Nevertheless, the IDF could not allow its reserves to fall into complete disrepair, as they still needed reservists to reinforce and augment active units, which also had reservist in their ranks, in the unlikely—but still possible—event of a large-scale conflict. Thus, since the 1990s, the IDF has implemented multiple reserve reform programs. Each approach, however, fell short. Initially, in the late 1990s, the IDF tried to bolster reserve training time and standards, but the Second Intifada and new legal restrictions on reserve training days limited its ability to do so. Failure to address reserve readiness, in turn, contributed to setbacks in the 2002 Battle of Jenin and the 2006 Lebanon War, during which reservists struggled in combat and in the process undermined Israeli tactical and strategic objectives.

Since 2006, Israeli defense policymakers have attempted to improve reserve readiness through initiatives such as resuming brigade and division-level exercises and increasing reservist pay and benefits to improve morale. But budgetary shortfalls due to the prioritization of high-tech weapons programs and government infighting forced the IDF to make deep cuts to reserve training and service obligations since 2006. Today, IDF leaders continue to consider ways to improve reserve readiness but

have largely opted to focus on preparing select reserve units for high-intensity operations while keeping the vast majority in supporting roles carrying out important—but secondary—functions such as border security. In short, the IDF was unable to find a solution to the reserve dilemma since the 1980s, as its once highly trained and effective army reserve became a shadow of its former self.

The story of the decline of the IDF reserve and the struggles of other reservists in the past century reveals an overlooked element of modern military history. That is, how the transition of armies to volunteer technical models—a development well documented by other historians—produced a policy dilemma for defense officials in regards to their reservists, be they reservists who served first as conscripts or volunteers with little or no active duty experience.²⁰⁴⁵ And the ability of states to recognize or respond to that dilemma played a major role in shaping the dynamics of multiple twentieth and early twenty-first century conflicts. In other words, histories of modern warfare must consider the roles, capabilities, and performances of the reserve components of armies. Too often these part-time soldiers are relegated to the margins of modern military history and strategic studies, even though they often make up the bulk of many armies.

Yet reservists' importance—and the importance of the reserve dilemma—may be short-lived. As historian John Keegan explains in *The Face of Battle*, warfare over the past century has become increasingly mechanized and, thus, dehumanized as armies substitute humans for machines.²⁰⁴⁶ And that trend only accelerated since

²⁰⁴⁵ Howard, *War in European History*, 120.

²⁰⁴⁶ Keegan, *The Face of Battle*, 331-40.

Keegan wrote *The Face of Battle* in the 1970s. Today, armies are fielding semi-autonomous robotic air, ground, and maritime systems that are proving capable of operating with little to no human supervision.²⁰⁴⁷ For example, in its 2020 conflict with Armenia, Azerbaijan employed Israeli-made one-way attack UAVs—also known as loitering munitions—that can locate and strike targets with little human input.²⁰⁴⁸ Meanwhile, Russia, the United States, and others are developing new generations of semi-autonomous ground vehicles that have the potential to fight without human crews.²⁰⁴⁹ Advances in artificial intelligence (AI) will almost certainly further enhance the ability of such robots—be they ground or air-based systems—to operate autonomously, reducing the need for humans on the battlefield.

Machines also offer a means to enhance individual human performance, potentially compensating for training deficiencies. As of mid-2020, the IDF is experimenting with a new system—called Smart Shooter—that uses a rifle-mounted computer and electro-optical sight to improve a soldier’s ability to rapidly and accurately engage targets.²⁰⁵⁰ Other armies are also experimenting with robotic exoskeletons that have the potential to greatly enhance a soldier’s physical strength

²⁰⁴⁷ For a detailed examination of the topic, see Scharre, *Army of None*.

²⁰⁴⁸ Bryen, “Armed drones revolutionizing the future of war,” *The Asia Times*, 09 December 2020, <https://asiatimes.com/2020/12/armed-drones-revolutionizing-the-future-of-war/> (accessed 20 December 2020).

²⁰⁴⁹ The National Interest, “Russia’s Uran-9 Robot Tank,” 06 January 2019; Mizokami, “What Will the Army’s M1 Abrams Tank Replacement Look Like?” 06 November 2020, <https://www.popularmechanics.com/military/weapons/a34588107/army-m1a2-abrams-tank-replacement-clues/> (accessed 20 December 2020).

²⁰⁵⁰ Boguslavsky, “Indian Navy procuring Smart Shooter 'SMASH 2000' rifle sights,” *Israel Defense*, 12 July 2020, <https://www.israeldefense.co.il/en/node/46950> (accessed 28 December 2020).

and stamina.²⁰⁵¹ China and France are even considering biological engineering techniques to enhance soldier “physical, cognitive, perceptive and psychological capacities.”²⁰⁵²

Such technologies portend a future in which armies do not need substantial numbers of soldiers. Instead, they may only need small cadres of specially trained technicians who can maintain, operate, and integrate a host of robotic air and ground systems. In such a world, the challenges and risks associated with the reserve dilemma likely would fade in importance, as the need for part-time soldiers—and soldiers in general—declines. In other words, the mechanization of war, which helped make the trained reserve a viable military institution in the 19th century, is driving reservists—or at least their training and personnel models—towards obsolescence or irrelevance.

However, armies today—and presumably those in the future—have multiple electronic and cyber-attack capabilities that can disrupt and even destroy the onboard electronic sensors of robotic systems.²⁰⁵³ And laws and regulations in places like the United States limit the ability of militaries to employ robots that can kill without a human in the loop.²⁰⁵⁴ Robotic ground systems, moreover, face multiple technical

²⁰⁵¹ Froelich, “France, China developing biologically engineered super soldiers,” *The New York Post*, 19 December 2020, <https://nypost.com/2020/12/19/france-china-developing-biologically-engineered-super-soldiers/> (accessed 28 December 2020).

²⁰⁵² Ibid.

²⁰⁵³ For example, Kyle Mizokami, “This Is the ATV-Mounted Jammer That Took Down an Iranian Drone,” 22 July 2019, *Popular Mechanics*, <https://www.popularmechanics.com/military/weapons/a28471436/lmads-iranian-drone/> (accessed 21 September 2019).

²⁰⁵⁴ For a detailed examination of the topic, see Scharre, *Army of None*.

hurdles, as they—unlike air systems—must navigate extraordinarily complex and variable terrain.²⁰⁵⁵ In short, the robotic future of war—especially in the land domain—is not imminent, although in the long-run it seems probable.

Thus, despite their questionable readiness levels relative to active duty soldiers, reservists will likely play prominent roles in the wars of the near future, as the overhead costs associated with maintaining standing armies rises and as support for conscription remains low across the globe. How reservists will be employed in those wars and the ways states will structure, train, and equip them in peacetime is less certain. What is clear, is that each state and society will formulate and enact their reserve policies in ways that reflect their unique political, cultural, and socio-economic conditions. And as they do so, each state—or at least the ones preparing for major war—will almost certainly have to confront the enduring challenge of building and maintaining reserve readiness in an era of increasingly high-tech and high-skilled warfare.²⁰⁵⁶ The preferred solutions to this dilemma that we have seen throughout recent history suggests that the trained reserve—an institution formed in response to the circumstances of the mid-19th century—is unlikely to survive in its traditional forms.

²⁰⁵⁵ For instance, developing a vehicle that can navigate a city with all of its dynamic and fixed obstacles is a challenge that armies have yet to overcome. And unlike civilian self-driving cars—an emerging technology—military vehicles capable of navigating on their own would have to do so in a contested environment in which they face kinetic and electronic attacks against the vehicle itself and its onboard sensors.

²⁰⁵⁶ The roles and capabilities of reserve forces is a key issue for studies on the future of war. But many of such studies do not look at this issue. For a recent example of such a study that overlooks reserve forces see RAND Corporation, *The Future of Warfare in 2030*. Reports like these often presume that armies are capable of fielding sufficient numbers of soldiers that will have the skills necessary to operate the high tech arms of the future. But recruiting, training, and retaining individuals with such skills is extremely challenging, especially in reserve formations in which time to train is scarce.

Appendix A: The Case of Russia

Since WWII, the Soviet Union/Russia took multiple approaches to address the reserve dilemma. How and why they took such approaches largely depended on the number of conscript or professional soldiers available to them and their wartime strategies. During the Cold War, the Soviets envisioned defeating NATO rapidly with its massive conscript army, enabling it to relegate reservists to supporting roles. But after the Cold War, Russia no longer had the financial means to support a large standing conscript army. At same time, Russia lost its Warsaw Pact allies, while NATO absorbed many of these former allies like Poland into its alliance. In this new context, Russia has sought to maximize its military resources, leading it to elevate reservists to more prominent roles.

During the Cold War, the Soviets kept reservists in supporting roles, as recently declassified U.S. Central Intelligence Agency (CIA) and Defense Intelligence Agency (DIA) reports reveal.²⁰⁵⁷ The main reasons they did so—and were able to—was because the Soviets maintained a large standing army through mass conscription. From the late 1960s to 1991, a male Soviet citizen started the conscription process at age 16 with a series of physicals, after which they participated in one to three years of pre-military training. After that initial training period, they

²⁰⁵⁷ These documents are available at the CIA's reading room, which is available at <https://www.cia.gov/library/readingroom>.

began their conscription service at around age 18 and served for two to three-years.²⁰⁵⁸ Afterwards, they transferred to the reserves until age 50.²⁰⁵⁹

Soviet reservists divided into two categories. Category one included those who had at least one year of active duty experience or twelve months of total reserve or combat experience. Category two were those who had less than one year of active duty experience or had not been drafted due to medical exemptions or other reasons.²⁰⁶⁰ Each of those reservists fell into one of three groups—based on their age—with their own specific training requirements, as Table 1.11 shows. Upon the outbreak of war, reservists would fill second-tier units that were kept at lower manning levels in peacetime or they would provide individual replacements to first-line units composed almost exclusively of active conscripts.²⁰⁶¹ In 1976, for instance, the Soviets had around 168 combat divisions, 60 of which were at near full strength.²⁰⁶² Reservists would have filled out the remaining 40 percent of those units.

Table 1.11: Soviet Reserve Training Obligations ²⁰⁶³	
Category I – At Least One Year of Active Service or One Year Total of Reserve Training	
Group I (age 18-35)	No more than four training periods; each of which lasted no more than three months
Group II (age 36 to 45)	No more than two training periods; each of which lasted no more than two months

²⁰⁵⁸ CIA, “Soviet Military Manpower: Sizing the Force,” 24 July 1991, 2, https://www.cia.gov/library/readingroom/docs/DOC_0000499184.pdf (accessed 27 August 2017).

²⁰⁵⁹ CIA, “Reservist Training for Soviet Ground Forces: Patterns and Implications,” January 1976, 5, <https://www.cia.gov/library/readingroom/docs/1976-01-01.pdf> (accessed 27 August 2017); U.S. Army, *FM 100-2-2: The Soviet Army: Specialized Warfare and Rear Area Support*, 14-2.

²⁰⁶⁰ U.S. Army, *FM 100-2-3: The Soviet Army: Troops, Organization, and Equipment*, 2-8.

²⁰⁶¹ CIA, “Warsaw Pact Ground Forces Reserve Systems,” 01 December 1982, iii, <https://www.cia.gov/library/readingroom/docs/1983-03-01.pdf> (accessed 27 August 2017).

²⁰⁶² CIA, “Reservist Training for Soviet Ground Forces: Patterns and Implications,” January 1976, 1, <https://www.cia.gov/library/readingroom/docs/1976-01-01.pdf> (accessed 27 August 2017).

²⁰⁶³ U.S. Army, *FM 100-2-3: The Soviet Army: Troops, Organization, and Equipment*, 2-8.

Group III (age 46-50)	One month of training
Category II – Less Than One Year of Active Service or Had Been Exempted from the Draft	
Group I (age 18-35)	No more than six training periods; each of which lasted no more than three months
Group II (age 36-45)	No more than two training periods; each of which lasted no more than two months
Group II (age 46-50)	One month of training

But the Soviet leadership neglected their reserves throughout the Cold War. Most reservists trained less than 30 days in their entire reserve career.²⁰⁶⁴ And when called for duty, they often spent their time working on administrative tasks or even harvesting crops, not practicing their respective military occupations.²⁰⁶⁵ The exception was for those in more technical fields like communications.²⁰⁶⁶

Soviet reservists also had few opportunities to gain practical experience, as the regular army seemingly questioned their quality and reliability. For instance, few reservists participated in combat operations in Czechoslovakia in 1968; and conscripts replaced reservists deployed to Afghanistan in 1980 when the Soviets decided to transition to more difficult offensive operations.²⁰⁶⁷ Those reservists who did deploy to Afghanistan, had to go through several months of pre-mobilization training beforehand.²⁰⁶⁸

In short, the Soviets maintained a ready reserve on paper. But, in reality, their reserve system was almost certainly incapable of producing reservists who could fight

²⁰⁶⁴ CIA, “Reservist Training for Soviet Ground Forces: Patterns and Implications,” 8.

²⁰⁶⁵ CIA, “Warsaw Pact Ground Forces Reserve Systems,” v.

²⁰⁶⁶ CIA, “Reservist Training for Soviet Ground Forces: Patterns and Implications,” 8; DIA, “Mobilization of Manpower and Material in Non-Soviet Warsaw Pact Countries,” 7.

²⁰⁶⁷ CIA, “Warsaw Pact Ground Forces Reserve Systems,” iii.

²⁰⁶⁸ Ibid., iii, 15.

according to the Soviet Union's prescriptive tactical doctrine that required extensive training and experience to master.²⁰⁶⁹

The Soviets, of course, could take this risk because their massive standing army greatly outnumbered the armies of NATO; and they calculated that they could likely defeat NATO by conquering West Germany in less than 30 days.²⁰⁷⁰ And as we saw in previous chapters, the Americans would likely have been unable to bring their reserves to Europe in time to help defend against such an attack. In other words, the Soviets may have been able to drown NATO with their conscript army.

Russia has employed its reserves differently since the end of the Cold War. With the loss of its Warsaw Pact allies and a decline in active-duty strength in the 1990s, Russia had to rely more on reservists in combat and combat support roles, especially as its active duty forces became bogged down with fighting and policing missions in Chechnya in the 1990s and, more recently, with operations in eastern Ukraine and Syria. To relieve stress on the active army, Russia, in 2014, announced the formation of territorial defense battalions composed of reservists who would secure critical infrastructure inside Russia during a crisis.²⁰⁷¹ Assigning reservists to

²⁰⁶⁹ See detailed tactical concepts discussed throughout U.S. Army, *Soviet Army Operations* (1978). Additionally, the Soviet dependence on armored vehicles required soldiers to have extensive knowledge of how to maintain and operate these systems.

²⁰⁷⁰ U.S. Army, *Soviet Army Operations* (1978), p. 3-5; DIA, *Soviet Readiness in the Western Theater*, p. vii, <https://www.dia.mil/FOIA/FOIA-Electronic-Reading-Room/FOIA-Reading-Room-Russia/FileId/121077/> (accessed 19 November 2020).

²⁰⁷¹ Grau and Bartles, *The Russian Way of War*, 29.

these roles could free active-duty units to conduct operations abroad or along the Russian frontier.²⁰⁷²

To ensure reservists were more ready for their new assignments, President Vladimir Putin authorized an initiative in 2015 that aims to improve reserve readiness.²⁰⁷³ This initiative, among many things, requires reservists to train twice a month and complete a two to three week annual training event, much like the American reserve system.²⁰⁷⁴ And reservists in peacetime would work alongside an associated active duty unit that the reservist would join in wartime as an individual replacement.²⁰⁷⁵ By improving the quality of its reserve (there are around two million Russian reservists as of 2017), Russia hopes to improve the overall readiness of its armed forces. As one Russian army colonel stated in a recent interview with a pro-Kremlin media outlet, the reserves will enable the army “to constantly be at the highest level of preparedness. Most importantly, if hostilities begin, the reservists will not be cannon meat and will be able to perform combat tasks to which they are assigned.”²⁰⁷⁶

²⁰⁷² Ibid.

²⁰⁷³ “Russia’s Putin Orders Formation of New Military Reserve Force,” *Reuters*, 18 July 2015, <http://www.reuters.com/article/us-russia-putin-military-reserves-idUSKCN0PS0CZ20150718> (accessed 06 August 2017).

²⁰⁷⁴ Grau and Bartles, *The Russian Way of War*, 29; Elfving, “Russia Mobilizes Contract Reservists,” *Jamestown Foundation*, <https://jamestown.org/program/russia-mobilizes-contracted-reservists/> (accessed 20 November 2020).

²⁰⁷⁵ Grau and Bartles, *The Russian Way of War*, 29.

²⁰⁷⁶ Staff Writers, “Russia to Introduce Army Reserve,” *RT*, 13 October 2014, <https://www.rt.com/news/195376-russian-army-reserve-units/> (accessed 06 August 2017).

In summary, Russia's approach to the reserve dilemma changed significantly after the Cold War. During that half century long confrontation with the United States, the Soviet Army enjoyed massive advantages over the United States in terms of active soldiers due to their mass conscription practices. Such advantages allowed the Soviets to relegate reservists to supporting roles, while operating under the assumption that if war erupted with NATO it would be resolved within weeks. And by resolving the conflict so quickly, the Soviets—in theory—would not need to send significant numbers of reservists into combat. After the Cold War, post-Soviet Russia no longer enjoyed such quantitative advantages against NATO, forcing it to draw more heavily on reservists to augment and reinforce the active duty army. The Russians, therefore, are now having to seriously confront the reserve dilemma as they seek to achieve their national security objectives with a smaller—and more professional—standing army.

Appendix B: The Case of Iran

Since 1979, the Islamic Republic of Iran has relied on its combat reserve—the *Basij e-Mustazafin* (mobilization of the deprived)—for national and internal defense.²⁰⁷⁷ For most of its history, the Basij focused almost exclusively on internal defense missions that did not require a high degree of military professionalism. However, at two points—the Iran-Iraq War (1980-88) and following the fall of Saddam Hussein in 2003—the Iranians had to employ or prepare to employ the Basij in more traditional military roles to address existential threats to the Iranian regime and its allies. And as it did so, Iran confronted the reserve dilemma.

To understand the Basij, it is first necessary to understand Iran's unique military structure. Since the 1979 revolution, the Iranian military has consisted of three organizations: the regular army (*Artesh*), the Islamic Revolutionary Guards Corps (IRGC), and the Basij militia. The regular army focuses primarily on territorial defense against foreign adversaries. The IRGC and the Basij focus on defense against internal threats; and, since the end of the Iran-Iraq War (1980-88), they have had a limited expeditionary role in support of Iran's regional allies, such as the government of Bashar al-Assad in Syria.²⁰⁷⁸

The Basij also serves as a reserve for the IRGC (the regular army has no reserve). Ayatollah Ruhollah Khomeini formed it in 1979 to protect the regime against internal and external threats in case the regular army or IRGC proved

²⁰⁷⁷ Williamson Murray and Kevin M. Woods. *The Iran-Iraq War: A Military and Strategic History* (Cambridge: Cambridge University Press, 2014), 79.

²⁰⁷⁸ *Ibid.*, 80.

unwilling or incapable of doing so.²⁰⁷⁹ The militia is largely composed of part-time members who have little to no formal military training or experience.²⁰⁸⁰ And that lack of training and experience was apparent during the opening phases of the Iran-Iraq War.

In September 1980, the Iraqi dictator Saddam Hussein launched a surprise invasion of western Iran to support his larger vision of establishing Iraq as the Mideast superpower.²⁰⁸¹ The invasion caught Iran at a particularly vulnerable moment. Following the 1979 revolution, Khomeini and his allies purged the regular army of many of its top officers.²⁰⁸² And the loss of American support meant Iran no longer had key technicians to help maintain and operate some of the high-tech weapons that it had acquired from the United States in the 1960s and 70s.²⁰⁸³ Making matters worse, much of the regular Iranian army was deployed along the Soviet border, not on the routes Saddam used to invade.²⁰⁸⁴ Thus, inexperienced militiamen and border police had to bear the brunt of the initial attack. And, unsurprisingly, they were not up to the task.

²⁰⁷⁹ CIA, “Iran’s Ground Forces: Morale and Manpower Problems,” <https://www.cia.gov/readingroom/docs/CIA-RDP89S01450R000200230001-0.pdf> accessed 20 November 2020).

²⁰⁸⁰ DIA, *Iran Military Power* (Washington, DC: Government Printing Office, 2009), 79-80.

²⁰⁸¹ Murray, *The Iran-Iraq War*, 1.

²⁰⁸² *Ibid.*, 78.

²⁰⁸³ *Ibid.*, 81.

²⁰⁸⁴ Ariane Tabatabai, *No Conquest, No Defeat: Iran’s National Security Strategy* (New York: Oxford University Press, 2020), 197.

Despite its initial successes, Iraq's invasion stalled as it reached more heavily populated areas where the militias and regulars put up a stiffer fight.²⁰⁸⁵ And as the stalemate continued, Iran found a unique—and brutal—way to compensate for the poor quality of its militiamen, who would play a key role in helping reverse the tide of the war.

Iran had little to no time to retrain its militias prior to sending them into the fight. Most received just 10 to 15 days of training before being sent forward.²⁰⁸⁶ Many were also children or elderly, further limiting their combat effectiveness.²⁰⁸⁷ But they compensated for their inexperience with a high will to fight, which reflected their ideological indoctrination and the wave of patriotic sentiment that spread across Iran in response to the Iraqi invasion.²⁰⁸⁸ Such indoctrination convinced many Iranian youth that the Iraqi invasion posed a direct threat to Islam, necessitating great sacrifices.²⁰⁸⁹

Iran exploited the militia's high will to fight by using them in human wave attacks ahead of Artesh and IRGC soldiers, during which their main role was simply to breach obstacles and absorb enemy fire.²⁰⁹⁰ In such roles, they did not need any special military training or experience. Rather they just needed to keep pushing

²⁰⁸⁵ Ibid.

²⁰⁸⁶ CIA, "Iran's Ground Forces: Morale and Manpower Problems," 2.

²⁰⁸⁷ Ibid.

²⁰⁸⁸ Ibid.

²⁰⁸⁹ Afshon Ostovar, *Vanguard of the Imam* (New York: Oxford University Press, 2016), 76.

²⁰⁹⁰ CIA, "Iran's Ground Forces: Morale and Manpower Problems," 2; Ben Wilson, "The Evolution of Iranian Warfighting During the Iran-Iraq War," 30, <https://community.apan.org/wg/tradoc-g2/fmso/m/fmso-monographs/241822> (accessed 31 March 2021).

forward into the opposing defenses. Such attacks were often effective, especially when directed at Iraq's own militiamen who were far less professional than their Artesh and IRGC counterparts.²⁰⁹¹ Ultimately, these attacks helped the Iranians overwhelm and demoralize the Iraqis.²⁰⁹² As one Iraqi commander recalled, "They come on in their hundreds, often walking straight across the minefields, triggering them with their feet...they chant Allahu Akbar and they keep coming, and we keep shooting sweeping our [machine guns] around like sickles. My men are eighteen, nineteen, just a few years older than these kids. I've seen them crying, and at times, the officers have to kick them back to their guns."²⁰⁹³ Such incidents—repeated in multiple instances across southwestern Iran—enabled the Iranians to expel the Iraqi invaders by 1982.

The Iranians struggled to replicate these successes during its counteroffensive into Iraqi territory. During that period, Iraq adjusted its tactics to compensate for the human wave attacks by erecting better obstacles to break up and confuse the advancing militiamen and by using chemical weapons.²⁰⁹⁴ Additionally, the high casualty rates generated by the human wave attacks and protracted fighting proved unsustainable for the Iranians, forcing an end to the counteroffensive and an end to the war.²⁰⁹⁵

²⁰⁹¹ Tabatabai, *No Conquest, No Defeat*, pp. 202-03.

²⁰⁹² CIA, "Iran's Ground Forces: Morale and Manpower Problems," 1-2.

²⁰⁹³ Murray, *Iran-Iraq War*, 80.

²⁰⁹⁴ Wilson, "The Evolution of Iranian Warfighting During the Iran-Iraq War," 30; Ostovar, *Vanguards of the Imam*, 97.

²⁰⁹⁵ CIA, "Iran's Ground Forces: Morale and Manpower Problems," iii, 10.

Following the Iran-Iraq War, the Basij returned to its primary role of internal defense.²⁰⁹⁶ But this changed following the U.S. invasion of Afghanistan (2001) and Iraq (2003), which put potentially hostile U.S. forces on both Iran's eastern and western borders. In response to these threats (and fears of domestic revolutionaries), Iran started improving the professionalism of select elements of the militia, while focusing others solely on internal defense.²⁰⁹⁷ That process accelerated in the past decade as Iran attempted to shore up its regional allies in Syria against domestic revolutionaries and expand Iranian influence across the greater Middle East.

In the mid-2000s, as tensions were rising between the United States and Iran, the Iranian government implemented a series of reforms aimed in part at improving the Basij's readiness for a conflict with the U.S. military.²⁰⁹⁸ A key part of those reforms was the placement of the Basij under the command of the IRGC in 2007, where it would be able to gain more direct mentorship and support from full-time professionals.²⁰⁹⁹ The Basij, for instance, implemented a formal rank structure, started participating in standard military training and educational opportunities previously afforded only to professionals, and placed some members (Special and Active Basij) on full-time orders.²¹⁰⁰ The IRGC also divided the Basij military units

²⁰⁹⁶ Afshon Ostovar, *Guardians of the Islamic Revolution Ideology, Politics, and the Development of Military Power in Iran (1979–2009)* (Ph.D. dissertation, University of Michigan, 2009), 140-41.

²⁰⁹⁷ Ostovar, *Vanguards of the Imam*, 189-91; Steven Ward, *Immortal: A Military History of Iran and its Armed Forces* (Washington, DC: Georgetown University Press, 2009), 323-24.

²⁰⁹⁸ Ostovar, *Guardians of the Islamic Revolution*, 186; DIA, *Iran Military Power*, 78.

²⁰⁹⁹ DIA, *Iran Military Power*, 78.

²¹⁰⁰ *Ibid.*

into two categories: Imam Hossein Battalions and Imam Ali Battalions.²¹⁰¹ Imam Hossein Battalions have expeditionary and internal defense roles, whereas the Imam Ali Battalions focus exclusively on internal defense.²¹⁰² And some of the units have even had opportunities to deploy abroad to Syria, where, since 2011, they have gained experience in counterinsurgency operations.²¹⁰³ All of these efforts, moreover, were enabled by a sevenfold increase in the Basij budget.²¹⁰⁴

Such improved training and experience for the Basij was important because Iran depends on the militia to deter and if necessary, defeat a U.S. ground invasion of Iranian territory. Since the fall of Saddam in 2003, Iran has planned to use the Basij to reinforce IRGC units tasked with delaying and defeating a U.S. invasion.²¹⁰⁵ Basij militia, moreover, have an important stay behind mission to harass U.S. supply routes and form cadres to launch a large-scale insurrection.²¹⁰⁶

Basij Member Types Since 2007 ²¹⁰⁷		
Member Type	Training	Status
Special Basij	Attend IRGC military academy	Full-time – comparable to regular IRGC members
Active Basij	Additional political-military training	Full-time
Regular Basij	Basic military and ideological training for internal security and homeland defense	Part-time

²¹⁰¹ Frederick Kagan, *Iran's Reserve of Last Resort* (Washington, DC: AEI, 2020), 6.

²¹⁰² Ibid.

²¹⁰³ DIA, *Iran Military Power*, 79.

²¹⁰⁴ Major Darras, *Deeply Rooted—But Adaptable: An Institutional Analysis of the Basij-e-Mostazafan*, 8, <https://www.cfc.forces.gc.ca/259/290/299/286/darras.pdf> (accessed 31 March 2021).

²¹⁰⁵ Anthony Cordesman, *Iran's Military Forces and Warfighting Capabilities* (Westport: Praeger, 2007), 81-82.

²¹⁰⁶ Ibid.; Ward, *Immortal*, 323.

²¹⁰⁷ DIA, *Iran Military Power*, 78-79.

General Basij	Unpaid and receive basic military training	Part-time
Potential Basij (non-members)	None	No obligations; volunteer to assist with certain activities

In summary, Iran's approaches to the reserve dilemma depended largely on two variables: time and the experience levels of its professional military. During the Iran-Iraq War, Iran lacked time to prepare its militias for war and the professionalism of its military—especially the newly formed IRGC—was low following the chaos of the revolution. Given these constraints, Iran sent its militias to war with little to no training. But they compensated for such inexperience by giving militiamen simple, yet dangerous, missions (human wave attacks) enabled by high levels of patriotism and ideological indoctrination. In the past 20 years, however, Iran has had time to prepare its militias for a potential conflict with the United States. And during this period, the overall professionalism of its military has improved. In this context, Iran had the ability to improve the training and educational standards of select Basij units that would have a homeland defense or expeditionary role in wartime.

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