

SPEED KILLS? FIGHTING AND THINKING IN TIME

BY

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A THESIS PRESENTED TO THE FACULTY OF
THE SCHOOL OF ADVANCED AIR AND SPACE STUDIES
FOR COMPLETION OF GRADUATION REQUIREMENTS



SCHOOL OF ADVANCED AIR AND SPACE STUDIES
AIR UNIVERSITY

MAXWELL AIR FORCE BASE, ALABAMA

JUNE 2018

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ACKNOWLEDGMENTS

If there is a thing that I have taken for granted before and developed a larger appreciation for after this thesis...it is time.

I want to thank my family for sharing and sacrificing their time with not only this thesis, but SAASS, and the USAF. I am forever grateful for my wife for her encouragement, support, and pragmatic advice throughout this shared endeavor. I want to thank my children who provided an always-needed break from writing; allowing me to gain perspective of the bigger picture. I also want to thank my parents and grandparents who have been a constant source of support and inspiration.

Moreover, I want to thank my best friend for his advice and being the sounding board for my thoughts throughout this process. My thanks go out to my instructors, classmates, and authors who, throughout the year, have helped me shape much of this work.

I want to thank Dr. James Kiras for the limitless contribution of sources to help support this thesis. As a result of his direction, I came into contact with Dr. Robert Leonhard, who I want to thank for his thoughts on the temporal aspects of war. Additionally, I want to thank Dr. Everett Dolman for his sharing his views and advocacy in pursuing this project.

I want to thank Dr. Thomas Hughes for his always-thoughtful insights, perspective, and guidance throughout this work. Lastly, I want to especially thank my advisor, Dr. Mark Conversino for his understanding, encouragement, and mentorship throughout this undertaking.

ABSTRACT

This study seeks to answer the question, “how time affects strategy and strategic decision-making.” The author begins this thesis by canvassing the work of military theorists to understand time’s role in warfare and how it reveals itself in application; a time horizon. The author explores the major influencers on time horizon selection and explains time horizon interaction. This study then takes these concepts and analyzes three historic case-studies to demonstrate the temporal characteristics of specific strategies in competition, and how the concept of time pressure affects strategic decision-making in war. The study concludes that time pressure, specifically in short time horizon decision-makers will lead to risk-seeking behavior. The development of these views on time provide beneficial insights to strategists and decision-makers, present and future.



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Introduction

There is no understanding of warfare apart from time.

-Robert R. Leonhard

This is a study about time, and more specifically, about how time affects strategy and strategic decision-making. “In war, space is contested but time is shared. The same minutes tick away for both adversaries.”¹ If this assumption holds true, there must be a way to understand the relationship between time and strategy and likewise if this relationship has any bearing on military decision-making at the strategic level. This essay will attempt to answer this central question to provide insights to both strategists and decision-makers in hopes of creating advantageous strategies and better decisions in times of war.

Overview

The clock is always ticking away for both sides in any war, yet the strategist and the decision-maker alike appear to rarely contemplate the existence of the temporal dimension as a major element in strategy. Strategic theorist Everett Dolman states, “all strategy is necessarily shaped by time.”² However, Reginald Bretnor observes “it is a curious fact that, in examining the various sets of rules or principles of war, from Sun Tzu’s on into the modern times, we find that they deal with the element of time largely by implication.”³ Author Michael Keane furthers this idea, arguing “at the strategic level, the dimension of time is so

¹ Michael I. Handel and Army War College (U.S.), eds., *Clausewitz and Modern Strategy* (London, England ; Totowa, NJ: F. Cass, 1986), 138.

² Everett C. Dolman, *Pure Strategy: Power and Principle in the Space and Information Age*, Cass Series--Strategy and History 6 (London; New York: Frank Cass, 2005), 152.

³ Reginald Bretnor, *Decisive Warfare* (Stackpole Books, 1969), 73–74.

obvious that it is often neglected. Yet, it is perhaps strategy's least forgiving element."⁴ Therefore it is critical for strategists and decision-makers alike to pay time its due by considering the temporal aspects of strategy explicitly. The importance of time cannot be understated. Likewise, strategist Colin Gary believes "time lost is literally irretrievable."⁵

Common definitions help strategist understand how time affects distinct levels of warfare. Sadly, temporal aspects are not well defined in strategy. The terms used are many and varied. Words and their definitions have far-reaching implications as their usage shapes and informs tactics, operations, and most importantly strategy. Temporal strategist Robert Leonhard believes "it is imperative for the student of warfare to understand the temporal characteristics of warfare."⁶ This essay supports his assertion and proposes definitions for common acceptance in Chapter Two. While these definitions may not encapsulate all aspects of time in strategy and warfare, they open the discussion for what terms can be adopted as the standard lexicon. Without a common point of reference, decision-makers, strategists, operational planners, and tacticians have no shared understanding on which to advance the conversation about the centrality of "time" to strategy.

While elements of time are universal at each level of warfare, this study seeks to address the strategic level of warfare. While temporal elements intertwine throughout the strategic, operational, and tactical levels of war, their character can and should be distinct at each level, while still supporting the overall aim of the strategy. As such, there is confusion in how time is to be used appropriately at each level and how it interacts with the overall strategy. Specifically, military planners tend

⁴ Michael Keane, *Dictionary of Modern Strategy and Tactics* (Annapolis, MD: Naval Institute Press, 2005), 204.

⁵ Colin S. Gray, *Modern Strategy* (New York: Oxford University Press, 1999), 16.

⁶ Robert R. Leonhard, *Fighting by Minutes: Time and the Art of War* (Westport, Conn: Praeger, 1994), 10.

to think of time operationally and tactically, but rarely strategically. Operational and tactical thinking about time deals mostly with military doctrine and actual operational usage of time, rather than the larger concept of time horizons. Therefore, it is imperative to establish common terminology and considerations of temporal use through all levels of warfare and planning. There must be clear delineating of when and how time is being used at each level of warfare in order to achieve the political-strategic-object. As military strategist Mao Tse-tung wrote in his treatise on protracted warfare, there can be different temporal characteristics at each level of warfare. For example, Mao argued that temporal principle for operational fighting should be offensively quick, but at the strategic level a defensive and protracted stance is often better.⁷ Mao's mastery of time shows how time can be used successfully in different ways and at different levels of warfare, yet in the end, the tactical and operational levels are ultimately subordinate to the time horizon established at the strategic level, and as such they must always work to support its aim.

Definitions

To best understand this argument, the definition of terms should be specified when referring to the following: time, time horizon, time pressure, and decision-maker. Time is "the continuum in which events occur in an irreversible succession from the past to the present to the future." For the purposes of this paper, time is considered linear and always moving toward the future. A time horizon is an estimated time in the future when an objective should be accomplished. In other words, it is a deadline for completing a task, but it entails much more in strategy.⁸

⁷ Mao Tse-tung, *On the Protracted War* (Peking: Foreign Languages Press, 1960), 233.

⁸ Ola Svenson and A. John Maule, eds., *Time Pressure and Stress in Human Judgment and Decision Making* (New York: Plenum Press, 1993), 84.

Time horizons create a temporal scheme for all levels of war, utilizing all of the temporal characteristics together to accomplish the political objective. Another critical temporal term which requires definition is time pressure. One can define time pressure as a type of psychological stress that occurs when a person has less time available (real or perceived) than is necessary to complete a task or obtain a result. As time, real or perceived, runs out, the higher the time pressure. Lastly, a decision-maker is a person who has the authority to make decisions on behalf of a group. That group in terms of this study can be any group of individuals, including nations and other complex organizations, engaged in warfare.

Furthermore, time in and of itself means nothing in warfare. War, by Carl von Clausewitz's definition, "is nothing but a duel on a large scale" this implies two opposing parties.⁹ As both sides have their own objects in war, they both have time horizons independent of the others. Therefore, time, in the form of time horizons, is relative to the opponent's time horizon. This relationship characterizes the temporal conduct of war and requires the strategist to address time explicitly by evaluating his time horizon relative to his opponent, and not independently. By understanding one's own time horizon and that of his enemy, strategists can begin to view time as a tool to mold strategy, manipulate the strategy of his enemy, and induce or relieve time pressure on adversary decision-makers. It is critical, however, the strategist recognizes that opponents may employ similar thinking, which must be guarded against.

Methodology

This study seeks to develop an understanding of how time manifests itself in the physical world and how these temporal elements in

⁹ Carl von Clausewitz, Michael Eliot Howard, and Peter Paret, *On War*, First paperback printing (Princeton, N.J: Princeton University Press, 1989), 75.

turn affect strategic decision-making. By viewing these elements through the lens of three historical studies, this essay sets out to establish that understanding. The case studies are Vietnam in 1972-1973, the Yom Kippur War in 1973, and the World War II Pacific Theater of 1944-1945. Each of these cases provides a unique framework to view opponents with either similar or different time-based strategies in conflict. The studies will help to explain the character of time in conflicts by examining the belligerent's time-based strategies in the form of time horizons. Furthermore, these studies will show how decision-makers react to increased stress from time pressure based upon the time horizon to which they ascribe. These time-based strategies or time horizons are either short or long. As such, the case studies show a short versus long, short versus short, and finally a long versus long time horizon in conflict along with their associated effects upon decision-making. Each study shows elements of demonstratable time horizons, demonstratable time pressure, and risks associated with actions taken by decision-makers influenced by the cumulative effects of their selected time horizon and the stress of time pressure. The study will analyze these temporal elements through primary and secondary sources to draw correlations between time horizons and decision-making. The research shows the difference in time horizons of both opponents, and identifies commonalities in how these time horizons interact with one another in war. Lastly, the study reveals how these commonalities influence decision-making.

Limits of the Argument

This study's aim is not to create a tool that will predict future victories or defeats. Rather, this study aims to help decision-makers and military strategists understand fourth-dimensional thinking that might aid in creation of future strategies and help to avoid potential pitfalls.

This research draws only on three historic case studies, and is not all-inclusive regarding military conflict. The study takes into account the works of prominent military strategists who explicitly acknowledge temporal factors in strategy and attempts to distill these salient teachings in an attempt to better understand the character of time in strategy and its effects on decision-making.

Overview of the Study

Chapter Two discusses the relationship of time and strategy by exploring the major contributions of strategic theorists with respect to temporal elements. Their work helps to inform and provide a framework to understand how most military theorists view and use time in the formulation of strategy. Chapter Three discusses the individual aspects which create time horizons, including physical, cultural, and cognitive elements. The chapter reveals which factors among the broader realms shape time horizons: the temporal trinity and the physical trinity, all centered around the political object. The temporal trinity consists of time commitment, time orientation, and time available with reference to the political object; The physical trinity is comprised of a military's doctrine, capability, and capacity. The chapter will introduce the concept of time pressure, and then discuss the characteristics of different and similar time horizons in conflict. Chapter Four is the first case study, Vietnam in 1972-1973, which examines a short (United States) against a long (North Vietnam) time horizon in contest, and concludes with results of the encounter and decision-making. Chapter Five analyzes a short time horizon in war against another short time horizon: the 1973 Yom Kippur War. Chapter Six, the last case study, examines the opposition of the long time horizons of the United States and the Imperial Japanese during the war in the Pacific in 1944-1945. Chapter Seven concludes the essay

through summary and provides implications and recommendations for strategists of today and tomorrow.



Chapter 2

Time and Strategy

*If Mars holds a sword in one hand, he surely grasps a watch
in the other.*

-Robert Leonard

Overview

To understand the effects that time exacts on strategic decision-makers, the understanding of time's elements is critical. These elements include the physical, the cultural, and the cognitive. Understanding each element's components helps elucidate how their combination manifests into an influential force to act upon strategy and decision-makers. As Leonard argues, "nothing—absolutely nothing—happens in war outside the temporal dimension."¹ While this view accurately describes the universality of time, it emphasizes something more meaningful for strategists and military decision-makers: the concept that nothing happens in *war* irrespective of the fourth-dimension of time. Therefore, for those who wish to engage in warfare, they must understand the temporal aspects of war. The idea of mastering strategy without understanding the temporal dimension of warfare is to miss a foundational building stone of strategy itself.

While conflict may be constrained to a physical domain such as land or sea, all conflicts take place in the domain of time. Time's arrow is always moving forward, bringing the present into the past and the future into the present. In war, space is contested, but time is shared. The same

¹ Robert R. Leonard, *Fighting by Minutes: Time and The Art of War* (Robert R. Leonard, 2017), xiii.

minutes tick away for both adversaries.² Understanding how to use time more effectively than an adversary is critical to victory on the battlefield. Despite this, those strategists however, who explicitly appreciate and emphasize the unique aspects of time in war are few and far between.

Strategists on Time

Interestingly, time and its elements are discussed sparingly in strategic theory. In most cases, time and its elements are implied to be common knowledge or dismissed altogether. Colin Gray notes time is often implied in works by theorists rather than acutely described.³ At the strategic level, the dimension of time is so obvious that it is often neglected. Yet, it is perhaps strategy's least forgiving element.⁴ While some theorists have delved into the topic with much depth, the field of study is sparse. While few have devoted explicit emphasis on the subject of time, their theories help to light the path for other strategists to follow. Therefore, to understand how time effects strategy and influences strategic decision-making, it is imperative that the strategist knows time's "great captains".

To military theorist Carl von Clausewitz, "time appears as the most essential factor, and given rise to the belief that in strategy space and time cover practically everything concerning the use of the forces."⁵ Clausewitz saw time as the "daily bread of strategy."⁶ While Clausewitz saw time as a critical element of war, he did not deem it as the most difficult nor the most important. Nevertheless, his dictum that war is the

² Michael I. Handel and Army War College (U.S.), eds., *Clausewitz and Modern Strategy* (London, England; Totowa, NJ: F. Cass, 1986), 138.

³ Colin S. Gray, *Modern Strategy* (New York: Oxford University Press, 1999), 172.

⁴ Michael Keane, *Dictionary of Modern Strategy and Tactics* (Annapolis, MD: Naval Institute Press, 2005), 204.

⁵ Carl von Clausewitz, Michael Eliot Howard, and Peter Paret, *On War*, First paperback printing (Princeton, N.J: Princeton University Press, 1989), 196.

⁶ Clausewitz, Howard, and Paret, 206.

continuation of political intercourse by other means formed a basis for understanding time's role in war. For Clausewitz, the political object is the goal, war is the means of reaching it, and the means can never be considered in isolation from their purpose.⁷ Clausewitz believed "war is not an act of senseless passion but is controlled by its political object, the value of this object must determine the sacrifices to be made for it in magnitude and also in duration."⁸ Often, history shows this relationship in that most wars of high tempo and intensity result in short wars, while those with low tempo and intensity result in long wars.

Clausewitz further argued that time favors the defensive form of warfare, which is a stronger form of warfare than the offensive due to its advantage in time. In other words, offensive warfare favors short wars, while defensive warfare favors long wars. While the goal of offensive action is a swift war accomplished by decisive action, the reality of most wars sometimes resembles a protracted slugfest. Thus, to achieve a decisive victory, Clausewitz required both speed and mass at the optimal point in time and space to reach the decisive point and to avoid drawn-out attrition.

Similarly, Sun Tzu, the most prominent Eastern strategist, has more in common with Clausewitz on the issue of time than expected. Like Clausewitz, Sun Tzu advocated for expedience in war to bring about a swift victory, because the costs of a protracted war are high.⁹ He argued "no state has ever benefited from prolonged warfare."¹⁰ While Clausewitz favored mass culminating at the optimal time, Sun Tzu relied on surprise and deception as the most effective method to accomplish a swift victory. Surprise strikes an opponent within a window of opportunity in time that

⁷ Clausewitz, Howard, and Paret, 87.

⁸ Clausewitz, Howard, and Paret, 92.

⁹ Michael I. Handel, *Sun Tzu & Clausewitz Compared*, Professional Readings in Military Strategy 2 (U.S. Army War College, Carlisle Barracks, Pennsylvania: Strategic Studies Institute, 1991), 32.

¹⁰ Sun Tzu and Samuel B. Griffith, *The Illustrated Art of War* (New York: Oxford University Press, 2005).

catches the defender unawares, ultimately denying the opponent adequate time to respond.

Mao Tse-tung, known primarily as the Communist founder of the People's Republic of China, was also a prominent Eastern strategist and student of both Clausewitz and Sun Tzu. He took a different approach in his prescription for war. Instead of a swift war characterized by high tempo, he argued for protracted war in which duration is the critical element of strategy. The strategy of protracted warfare is a strategy of the weak against the strong. The temporal aspect of duration is manipulated to allow the weaker opponent to build up his strength over time, and when of sufficient strength, allow him to strike with greater strength than the opponent.

Mao's mastery of time in strategy, however, prescribed more than just duration. His strategy defined temporal aspects at each level of war, which need not be the same as the strategic. Mao championed the idea of "quick-decision offensive warfare," at the operational and tactical levels in conjunction with strategic principles of "protracted defensive warfare" to accomplish his strategy."¹¹ Mao's strategy entailed three phases, the first being the strategic defensive, followed by the stalemate as preparations are made for the final stage of the strategic counter-offensive.¹²

The strategy of protracted war used these phases to offset the advantage of militarily superior forces, and has become the preferred strategy of weaker armies. His strategy incorporated time as an advantageous element and combines attrition, guerrilla warfare, and strategic patience to exhaust the opponent. Once the enemy's weapons have been blunted and his morale depressed, Mao's strategy aimed to deliver the crushing blow to attain a final victory.

¹¹ Mao Tse-tung, *On the Protracted War* (Peking: Foreign Languages Press, 1960), 58.

¹² Mao Tse-tung, 41.

A proponent of a short and decisive war, Giulio Douhet--the world's most prominent and foundational airpower theorist--believed airpower was the answer to both Clausewitz and Sun Tzu's quests for swift victory. He argued airplanes could circumvent space and time in ways impossible for pedestrian forces. Further, he argued the use of aircraft in war could "inflict the greatest damage in the shortest possible time."¹³ His theories center around highly intense aerial bombardment. These attacks would be intense not only in scale, but also in intensity. These devastating air-delivered effects would compel the opposing populous to sue for peace, in turn decreasing the duration of war.

Other theorists such as Baron Antoine De Jomini and Basil Liddell Hart, also stressed speed and timing. Jomini's fundamental principles of war championed operational art to move mass as rapidly as possible to arrive at the decisive point at the optimal time.¹⁴ Similarly, Hart theorized operationally swift and unrelenting tempo was critical to quick victories, paralysis of the enemy, and short wars.¹⁵ Many theorists thereafter have adopted these concepts, and view tempo and speed as the principles of war that will bring about success on the battlefield quickly and without the protraction of attrition warfare.

While these theorists bring the stratagems of speed and operational tempo forward, Marshall of the Soviet Union Mikhail Tukachevsky, focused not only upon velocity but also upon the temporal aspects of sequence and synchronization in his usage of simultaneity.¹⁶ He advocated a theory of "deep battle" which combined a form of concurrent sequencing of operations with rapid mobility and high tempo.¹⁷

¹³ Giulio Douhet, *The Command of the Air* (Washington, D.C.: Office of Air Force History, 1983), 51.

¹⁴ Antoine Henri Jomini, *The art of war* (Radford, VA: Wilder Publications, 2008), 52-53.

¹⁵ Basil Henry Liddell Hart and Basil Henry Liddell Hart, *Strategy*, 2nd rev. ed (New York, N.Y., U.S.A: Meridian, 1991), 230-31.

¹⁶ Richard E. Simpkin and John Erickson, *Deep Battle: The Brainchild of Marshal Tukhachevskii*, 1st ed (London; Washington: Brassey's Defence, 1987), 249.

¹⁷ Richard E. Simpkin and John Erickson, *Deep Battle: The Brainchild of Marshal Tukhachevsky*, 1st ed (London; Washington: Brassey's Defence, 1987), 253-61.

Simultaneity was critical to deep battle, as it applied force in parallel over the whole depth of the enemy layout.¹⁸ The strategy of incorporating parallel sequence and synchronization support a more in-depth mastery of warfare beyond speed.

United States Air Force Colonel John Boyd focused his thoughts on strategy around the temporal aspects of warfare in the forms of maneuver warfare and the OODA (Observe, Orient, Decide, Act) loop. Boyd recognized the importance of “timing and tempo,” and viewed maneuver as warfare using high-tempo operations, focused on creating and exposing flanks and rears, and exploiting enemy weakness instead advancing against enemy strengths.¹⁹ His thoughts of time went beyond timing and tempo and included his decision-making concept of OODA. Boyd’s theories of maneuver were based largely on the German concept of blitzkrieg warfare. His OODA loop emphasized German General Gunther Belumentritt’s theory that warfare needed “rapid, concise assessment of situations,...quick decisions and quick execution, on the principle: each minute ahead of the enemy is an advantage.”²⁰ To Boyd, “the ability to operate at a faster tempo than an adversary enables one to fold the adversary back inside himself so that he can neither appreciate nor keep up with what is going on. He will become disoriented and confused; which suggests that...the adversary will experience indecision, fear, panic, and overload his mental and physical capacity to adapt or endure; thereby collapse his ability to carry on.”²¹ Boyd’s goal in the use of “mind-time-space” was to compress one’s own time and stretch-out an adversary’s time, through the application of the OODA loop and

¹⁸ Richard E. Simpkin, *Race to the Swift* (Virginia: Pergamon-Brassey’s International Defense Publishers, 1985), 145–48.

¹⁹ Frans P. B. Osinga, *Science, Strategy and War: The Strategic Theory of John Boyd* (London; New York: Routledge, 2007), 49.

²⁰ Grant Tedrick Hammond, *The Mind of War: John Boyd and American Security*, 2012, 142.

²¹ Hammond, 160.

maneuver warfare.²² Boyd's concepts came to influence a belief in fast operations and fast thinking as a way to break free from attrition warfare.

His compatriots in the U.S. Air Force, General David Deptula and Colonel John Warden, took this argument further by advocating for effects-based operations, which require parallel actions to "create the desired shorter conflict."²³ Their theories on parallel warfare seek to attack enemy centers of gravity simultaneously to induce strategic paralysis.²⁴ Warden specifically advocates for parallel warfare in conjunction with time-compression to the point of "hyperwarfare", where timing of military operations is almost instantaneous. "Warden feels justified in doing so because he claims that the parallel hyper-wars of the twenty-first century will eliminate the possibility of enemy reaction at the strategic and operational levels. In fact, Warden goes so far as to proclaim that the revolution in warfare ushered in by Desert Storm has made most Clausewitzian notions irrelevant."²⁵ Aided by advances in technology, the provocative ideas posed by Warden and Deptula give to some adherents a glimpse of future predictions of how time can be used in the formulation of strategy.

Strategist Everett Dolman takes the concept of time in strategy even further, making it a principle of war.²⁶ His ideas consider speed and tempo critical in formulation and execution of strategy. He holds that out-maneuvering the enemy in the physical and temporal planes of decision and action creates advantage. For Dolman "Time is the most critical limitation on the power the tactician can yield, and the most

²² John R. Boyd, "Patterns of Conflict" (Washington, D.C., 1986).

²³ David A. Deptula, "Effects-Based Operations: Change in the Nature of Warfare" (Aerospace Education Foundation, Arlington, VA, 2001), 5.

²⁴ David S. Fadok, "John Boyd and John Warden: Air Power's Quest for Strategic Paralysis" (School of Advanced Air and Space Studies, 1994), 25.

²⁵ David S. Fadok, 29.

²⁶ Everett C. Dolman, *Pure Strategy: Power and Principle in the Space and Information Age*, Cass Series--Strategy and History 6 (London; New York: Frank Cass, 2005), 151.

malleable enabler that the strategist can manipulate. It becomes incumbent on the strategist to provide as much time as possible for the tactician, just as it is critical for the tactician to use all time available wisely.²⁷ While Dolman seeks rapidity, he also theorizes that unlike a strategist or operational-planner, the strategist's job is never complete as the process of strategy is an endless quest for continual advantage with no end. For Dolman, "from the strategic thinker's perspective, temporal boundaries are always shifting. Every action creates change. Meaningful change creates options, increasing options produces time."²⁸

Rounding out the great captains is retired U.S. Army Lieutenant Colonel Robert R. Leonhard, the only military strategist to create a theory of warfare focused on time. Leonhard argues in his seminal work "*Fighting by Minutes*," that "time is and will continue to be the dominant dimension in war."²⁹ His thesis moreover states "the most effective way to perceive, interpret, and plan military operations is in terms of time, rather than space."³⁰ Leonhard's work creates a theory of temporal warfare with the aim of achieving future advantage.³¹ His theory demands military professionals at all levels understand time and its fundamental aspects to exercise mastery of the battlefield at all levels of warfare, to include the technical. Leonhard notes that like Mao, temporal elements can act separately or synergistically at each level of war.³² Lastly, Leonhard advocates for strategists to achieve temporal coup d'oeil, they must be able to apply mechanisms of time with proper modulation; both fast or slow.³³

While these theorists all contemplate the concepts of the fourth-dimension, their works center around the use or manipulation of the

²⁷ Dolman, 151.

²⁸ Dolman, 152.

²⁹ Robert R. Leonhard, *Fighting by Minutes: Time and The Art of War*, xviii.

³⁰ Robert R. Leonhard, xviii.

³¹ Robert R. Leonhard, xvi-xvii.

³² Robert R. Leonhard, Personal Interview, Telephone, March 14, 2018.

³³ Robert R. Leonhard, *Fighting by Minutes: Time and The Art of War*, 222.

element of time. For strategists to fully understand and appropriately apply temporal concepts to strategy, they must first grasp the fullness of time's characteristics.

Characteristics of Time

To understand the dimensions of time, one must group its characteristics. Unfortunately, theorists and military doctrine muddy the water when it comes to finding a common temporal lexicon. Time is a universal element and therefore requires common definitions. Leonhard argues for the use of four universal and scientifically-termed characteristics of time: *duration, frequency, sequence, and opportunity*. These terms are a departure from the more common nomenclature of military professionals, who commonly invoke the concepts of *speed, tempo, and surprise*. While both lists present different terminology, there are rough analogs between these terms though much work remains to attain a truly comprehensive typology. To help broaden the argument and allow for commonality of language throughout this essay, this thesis uses six temporal terms: duration, tempo, timing, opportunity, sequence, and synchronization.

Duration in warfare as coined by Clausewitz refers to the length of a conflict, assuming it has a clear start and end.³⁴ This term characterizes conflict more often than not in the form of long or short wars that can be characterized as “protracted” or “quick,” respectively. Duration is a matter of high-level strategic formulation as it determines the length of involvement in order to achieve the object of war.

The United States Marine Corps (USMC), the primary adopter of John Boyd's principles, provide the best definition of tempo: “The relative speed and rhythm of military operations over time with respect to the

³⁴ Clausewitz, Howard, and Paret, *On War*, 92.

enemy.”³⁵ Speed and time are closely related. “Speed and time create tempo, thus the speed of operational tempo can either be slower, the same, or faster than that of the enemy.”³⁶ When friendly tempo exceeds that of the enemy, friendly forces can seize the initiative. The concept of tempo applies across the range of military operations, but is not the same as speed.³⁷ As Thomas Hughes argues, seeing speed and tempo as synonymous, as many currently do, is dangerous.³⁸ Marine Corps Manual MDCP-1 agrees: “there is more to speed than simply going fast and there is a vital difference between acting rapidly and acting recklessly.”³⁹

Timing is all-together different from tempo. As Walter Givhan defines the term, timing “is the opportunity and choice of a particular moment in time for action or inaction.”⁴⁰ Timing implies a gain or loss from the standpoint of action or inaction. As Vice Admiral Lord Horatio Nelson remarked, “time is everything; five minutes makes the difference between victory and defeat.”⁴¹ Furthermore, Clausewitz and Jomini’s ideas of achieving a decisive point in time and space require a commander to understand where, and more importantly *when*, it will be.⁴² Colin Gray adds that, timing can be “too soon, too late, or at the right time.”⁴³ To arrive too soon or too late would violate the effective use of timing without realizing the decisive point.

³⁵ United States Marine Corps, “MCDP 1-0, Marine Corps Operations (w/Change 1),” July 26, 2017, Glossary-34.

³⁶ United States Marine Corps, 3–30.

³⁷ United States Marine Corps, 3–30.

³⁸ Thomas Hughes, “The Cult of the Quick,” *Aerospace Power Journal* XV, No.4, no. Winter (2001): 63.

³⁹ United States Marine Corps, 3–31.

⁴⁰ Walter D. Givhan, “The Time Value of Military Force in Modern Warfare: The Airpower Advantage” (USAF School of Advanced Air and Space Studies, 1995), 8.

⁴¹ Keane, *Dictionary of Modern Strategy and Tactics*, 204.

⁴² Clausewitz, Howard, and Paret, *On War*, 570.

⁴³ Gray, *Modern Strategy*, 43.

Sequence simply relates to the order of events, and can refer to serial or parallel relationships. By mastering sequence, a strategist masters the order of events to occur throughout conflict by retaining initiative. Through the control of the order of events, strategists can choose to bypass a step in a sequence to accelerate the rate of tempo and shorten duration, or they can choose to lengthen it by creating more steps.

Givhan defines synchronization as “the ability to orchestrate events so that they occur at appropriate points in time.”⁴⁴ In doing so, synchronization allows forces to arrange and initiate actions aimed at generating maximum relative power at a decisive place and time. Michael Keane notes, “when properly executed, synchronization generates synergistic effects from all elements of force that collectively exceed the sum of the individual force elements.”⁴⁵

The last critical characteristic of time is opportunity. Opportunity is a dynamic and fleeting element of time and a time-sensitive decision point or “window of opportunity.” As such, opportunity borrows from the concept of timing, and opportunity only exists for a particular moment in time. Once passed, it is lost. As Napoleon stated, “Space we can recover; lost time, never.”⁴⁶ By using opportunity, the term has an overarching relevance to timing as well as dynamic windows to exploit for advantage. These windows can reveal an opportunity to shorten or lengthen a conflict. Depending on the context and objectives, it is imperative to both decision-makers and strategists to recognize opportunities and seize them. By using common temporal definitions, this study hopes to provide advocacy for their use while minimizing any confusion in terminology throughout the work.

⁴⁴ Walter D. Givhan, “The Time Value of Military Force in Modern Warfare: The Airpower Advantage,” 8.

⁴⁵ Keane, *Dictionary of Modern Strategy and Tactics*, 197.

⁴⁶ Keane, 204.

Cultural Aspects of Time

While time is constrained by physics and is measured in a standard manner, cultures perceive time to pass in different ways. Cultural perceptions are shaped by societal temporal orientations. Western societies tend to mark time by constant velocity in standard ways: minute, hour, day, month, and year. This is a pattern especially true of colder-climate societies with large populations and prominent urbanization. However, societies elsewhere may reference time not to clocks but to events; in this worldview, time is less discrete and more variant.⁴⁷ Cultures can take on an inherent orientation toward temporal perception, which may impact how individuals think, decide, and react. Time orientations are how cultures perceive the past, the present, and think about the future.

Table 1: Key Differences Between Short and Long Term Orientation Societies: General Norm.

Short Term Orientation	Long Term Orientation
Efforts should produce quick results	Perseverance, sustained efforts toward slow results
Social pressure toward spending	Thrift, being sparing with resources
Respect for traditions	Respect for circumstances
Concern with personal stability	Concern with personal adaptiveness
Concern with social and status obligations	Willing to subordinate oneself for a purpose
Concern with "face"	Having a sense of shame

Source: Recreated from Geert H. Hofstede and Gert Jan Hofstede, *Cultures and Organizations: Software of the Mind*, Rev. and expanded 2nd ed (New York: McGraw-Hill, 2005), 212.

In 1991, Geert Hofstede, a social psychologist, introduced the concept of national communities of people exhibiting temporal orientations that influenced their perceptions of time. He differentiated between these orientations as either long and short-term (table 1). Long-

⁴⁷ Robert Levine, *A Geography of Time: The Temporal Misadventures of a Social Psychologist, or How Every Culture Keeps Time Just a Little Bit Differently*, 2. [print.] (New York: Basic Books, 1998).

Term Orientation characterizes societies that foster pragmatic virtues directed toward future rewards, in particular perseverance, thrift, and adapting to changing circumstances. The opposite pole, Short-Term Orientation, stands for the fostering in a society of virtues related to the past and the present, such as national pride, respect for tradition, preservation of *face*, and fulfilling social obligations.⁴⁸ These cultural characteristics in temporal terms provide insight into how culture perceive time, espouse values and can contextually apply either past, present, or future analogies toward thinking and strategy.

Starting in the 1981, a worldwide network of social scientists has conducted national survey in almost 100 countries to gather data about people's values and beliefs, so over time they can recognize changes and the sociopolitical impacts they have. The results of the world survey as related to Hofstede's idea of Long term orientation are show in Table 2. "This dimension describes *how every society has to maintain some links with its own past while dealing with the challenges of the present and future*, and societies prioritize these two existential goals differently. Normative societies. which score low on this dimension, for example, prefer to maintain time-honored traditions and norms while viewing societal change with suspicion. Those with a culture which scores high, on the other hand, take a more pragmatic approach: they encourage thrift and efforts in modern education as a way to prepare for the future."⁴⁹ These rankings provide insight into other cultures temporal views of time orientation.

⁴⁸ Geert H. Hofstede and Gert Jan Hofstede, *Cultures and Organizations: Software of the Mind*, Rev. and expanded 2nd ed (New York: McGraw-Hill, 2005), 207–38.

⁴⁹ Geert Hofstede, "Country Comparison," <https://www.hofstede-insights.com/country-comparison/>, n.d., accessed May 27, 2018.

Table 2. World Survey Values: Hofstede Long Term Orientation.

Rank	Country/region	Score	Rank	Country/region	Score
1	South Korea	100	47	Turkey	46
2	Taiwan	93	49	Brazil	44
3	Japan	88	50	Malaysia	41
4	China	87	53	Poland	38
5	Ukraine	86	54	Israel	38
6	Germany	83	55	Canada	36
7	Estonia	82	56	Saudi Arabia	36
8	Belgium	82	61	New Zealand	33
9	Lithuania	82	62	Thailand	32
10	Russia	81	68	Philippines	27
16	Singapore	72	71	USA	26
22	Netherlands	67	73	Iraq	25
23	Kyrgyzstan	66	77	Australia	21
26	Indonesia	62	78	Argentina	20
31	Hong Kong	61	82	Jordan	16
32	Azerbaijan	61	83	Venezuela	16
36	Vietnam	57	84	Zimbabwe	15
37	Sweden	53	85	Morocco	14
40	Great Britain	51	86	Iran	14
41	India	51	89	Nigeria	13
42	Pakistan	50	91	Egypt	07
45	Bangladesh	47	93	Puerto Rico	00

Source: Reprinted from Geert Hofstede and Michael Minkov, "Long- versus Short-Term Orientation: New Perspectives," *Asia Pacific Business Review* 16 No. 4, no. October (201AD): 493–504, 499.

This concept of cultural time-orientation can provide insight into how societies might wage war in the future, and which types of strategies may align more with their cultural values on time. Historically, societies that have long-term orientation do not always enact strategies with long time horizons. However, these cultural insights may influence the decision-making of individuals in creating strategies and time horizons when faced with war. Nations can create strategic choices in military force composition and doctrines to reinforce these temporal orientations. Furthermore, strategy formulation may complement these long-term orientations in the form of long time horizons.

Cultures may also subscribe to particular strategists who are in line with their cultural orientation and perceptions of time. Western cultures lean toward Clausewitzian temporal strategies, while Eastern

cultures tend to favor Eastern strategists such as Sun Tzu or Mao Tse-tung. Sun Tzu conceived strategy over a longer period of time than did Clausewitz, and each marked his own time in the tactical and strategic conduct of war. Sun Tzu characterized time in prolonged, cyclical, and integrated units, while Clausewitz measured time in distant, short, and linear increments. These writings do not correspond directly to strategic choices made by nations in the contemporary world, of course, but their continuing influence shows enduring national preference in the business of strategy making.⁵⁰

Cultural aspects of temporal orientation bring with them ways in which time is perceived and how interactions between individuals take place with respect to time. Cultural studies which take these aspects into account put great emphasis on the natural frequency of life. Temporal orientation and perspectives on time can result in how cultures influence expectations of their military. These expectations and views on time can result in the offensive or defensive posture of culture, military doctrine, technical capabilities, armament procurement, and capacity. Therefore, the cultural views of time can drive not only the perspective of time, but also may have a heavy hand in the construction of the military instruments of a society.

Cognitive Aspects of Time

Together with the physical and cultural aspects of time, time has certain cognitive and psychological aspects that are critical to strategy formulation and decision-making. Time is processed in the mind and measured by the clock, but the mind can override the physical world's signs. Like other aspects of cognitive psychology, the mind perceives time

Robert R. Leonhard, *Fighting by Minutes: Time and The Art of War*, 11.

⁵⁰ Thomas Hughes, "The Cult of the Quick," *Aerospace Power Journal* XV, No.4, Winter (2001): 64.

with certain biases, illusions, and phenomena. For example, the mind can misconstrue the passage of time, as in the case of temporal distortion; or events can seem to take place at faster or slower rates; or people can lose track of time without outside references; or the perception of how fast time is moving can induce stress on individuals.

Elements of time can be either real or perceived, and the brain cannot differentiate the two. In this study, the most pertinent cognitive aspect of time is that of time pressure. Time pressure is a stress exerted on an individual, real or perceived, by a sense of running low on time as a resource in reference to accomplishing a task.⁵¹ As time passes it compresses.⁵² This temporal pressure can exert a significant amount of stress on decision-making. Time pressure is a subject of much research in the area of cognitive psychology. This research explains the phenomena and offers ways to understand and cope with the stresses of time pressure. Many cognitive psychologists claim that under time pressure, individuals will display high-stress levels that may result in riskier decisions, sub-optimal performance, limited capability to process information, and a tendency to lock into decisions without fully analyzing alternative options.⁵³ As deadlines approach or the end of a time horizon draws near, time pressure increases as well as the corresponding stress level.

This study argues that as time pressure increases, decision-makers will make riskier decisions to achieve their objective in the prescribed time horizon. Thus, decision-makers can induce time pressure on themselves by the very time horizons they set, either consciously or unconsciously. In the case of short time horizons, time pressure mounts quickly and deadlines approach rapidly. Conversely,

⁵¹ Ola Svenson and A. John Maule, eds., *Time Pressure and Stress in Human Judgment and Decision Making* (New York: Plenum Press, 1993).

⁵² Dolman, *Pure Strategy*, 152.

⁵³ Svenson and Maule, 36–37.

long time horizons do not induce the same stress of time pressure as short time horizons do because the deadline is either so far ahead that time pressure is not felt immediately, or at all. Strategists and decision-makers with long time horizons will not experience time pressure as soon as those with short time horizons, unless pressure is introduced by an exogenous condition. In short, strategists and decision-makers may fall victim to failures in their cognitive processes when subjected to time pressure and may adopt risk-seeking preferences in their decision-making to achieve their desired results in the time horizons they have set forth. Yaacov Vertzberger points out “as time pressures increase, the tendency to overestimate what can be accomplished within the available time increases, because people desire to accomplish all their tasks, their ability to do so being an indicator of competence and success.”⁵⁴ Consequently, strategists and decision-makers both are prone to exhibit risk-acceptant behavior as a result of time pressure (real or perceived), resulting in suboptimal decisions with unintended consequences. As such, there is a need for decision-makers to recognize the impact of time pressure and understand the significance it can have on decision-makers running out of time.

⁵⁴ Yaacov Vertzberger, *Risk Taking and Decisionmaking: Foreign Military Intervention Decisions* (Stanford, Calif: Stanford University Press, 1998), 50.

Chapter 3

Time Horizons

Every military plan at every level of war is ruled by the clock.

-Colin Gray

Overview

In war, politicians set the broader political objective, leaving military strategists to plan for its accomplishment. The element of time in this endeavor is critical. Time horizons are the manifestation of time in strategy, but what goes into their creation? The thesis introduces temporal and physical trinities, both centered on the political object, that influence the selection of a time horizon. The temporal trinity is made up of the perceived time available to achieve an objective, a society's time orientation, and lastly, time commitment. The physical trinity hinges on military doctrine, capability, and capacity. While these trinities are not all-encompassing, or intended as a predictive tool, they do provide a framework to recognize a particular time horizon. In the case of this essay, they prove valuable in determining how to categorize the cases studies in the subsequent chapters.

While the time horizon will guide the specific strategy and military plans, it will also decide the comprehensive use of time in strategy at each level of war. Time horizons, short and long, both have distinct temporal and physical characteristics. In military conflict these characteristics demonstrate relational interactions. For example, a short time horizon in competition with a long time horizon will exhibit a different interaction than when a short time horizon confronts another short time horizon.

Additionally, time horizon selection and time pressure heavily influence decision-making preferences with respect to risk. This thesis

advances the notion that decision-makers react differently because of the time horizons they select. To create better strategies and make better choices for armed conflict, strategists and decision-makers alike must understand the relationship between time horizons and their political objective, the influence of the temporal and physical trinities in shaping time horizon selection, and how the selected time horizon shapes the conflict and decision-making.

Time Horizons

Time in strategy manifests as a time horizon. As mentioned in Chapter One, a time horizon is an estimated time in the future when an objective should be accomplished. Time horizons create a temporal scheme for all levels of war utilizing all of the temporal characteristics holistically to accomplish the political objective. As such, time horizons dictate the length of a strategy as it follows the Clausewitzian notion that the political object dictates the magnitude and duration of military action. Leonhard supports this argument: “The objective in war is the single most influential factor in determining the conflict’s duration.”¹ Likewise, Colin Gary asserts the “temporal dimension of war and strategy reside in war duration.”² In addition to duration, the temporal realm can also influence the magnitude of the war as well through operational tempo and synchronization, as forces can use speed and mass in combination to hasten contact and frequency of contacts with the enemy, thus increasing the magnitude of the conflict.

Furthermore, Clausewitz asserts, “since war is not an act of senseless passion but is controlled by its political purpose...once the expenditure [sacrifices made in magnitude and duration] exceeds the

¹ Robert R. Leonhard, *Fighting by Minutes: Time and the Art of War* (Westport, Conn: Praeger, 1994), xviii.

² Colin S. Gray, *Modern Strategy* (New York: Oxford University Press, 1999), 174.

value of the political purpose, the purpose must be renounced and peace must follow.”³ He continues this line of thought by explaining, “the original political aims can greatly alter in the course of the war, and may finally change entirely since they are influenced by events and their probable consequences.”⁴ Therefore, just as objectives can change, so too can time horizons. While political goals may change due to evolving context, the roles of defender and attacker can evolve as well in war, causing a change in objective from negative to position, or vice-versa. The relationship between objective, magnitude, and duration are central to the argument that strategists and decision-makers require a time horizon to guide the employment of their temporal elements.

Time horizons are a central element in war, and can be called either short or long. There is no metric to categorize a time horizon’s length, as time horizons are relative to a specific period of history, context, and most importantly to the enemy’s time horizon. Therefore, a short time horizon can be measured at certain times in history as lasting for decades, whereas in other cases it may be in days or hours. Conversely, long time horizons can stretch for centuries, but as times and context change, what was previously considered a short war can turn into a long war. While duration plays a major role in a time horizon, it is not the only characteristic. In sum, the time horizon will not only have an estimated completion date, but also all of the subordinate characteristics of time that support that estimation, to include: duration, tempo, timing, sequence, synchronization, and opportunity.

Time horizons establish an expected time in the future of when forces will accomplish a decisive point and achieve the political objective while not exceeding the culminating point. The difference between the starting point in time and the expected end creates a duration for the

³ Carl von Clausewitz, Michael Eliot Howard, and Peter Paret, *On War*, First paperback printing (Princeton, N.J: Princeton University Press, 1989), 92.

⁴ Clausewitz, Howard, and Paret, 92.

war. To reach the decisive point in the prescribed time, there must be an appropriate tempo, which as previously described is speed over time. This tempo will determine the rate at which forces need to advance toward the objective, and the optimal timing to meet the decisive point. The time horizon will accordingly have a sequence, and if required, synchronicity, with other lines of effort, means of power, or levels of war. Milestones along the path act as measures of success to determine if the timing, tempo, and sequence are still appropriate to the task. If opportunities present themselves along the way to act as shortcuts toward the finish, decision-makers will make choices on the risk versus reward of their selection with the objective always in mind.

In most cases, positive objectives are linked with short time horizons and negative objectives with long time horizons. Positive objectives are gain-oriented and predominantly used by an attacker, while negative objectives are often used by defenders. Clausewitz defines negative objectives as those without positive purpose, where the minimum object is pure self-defense.⁵ He further illuminates, that "The object of defense is preservation; and since it is easier to hold ground than to take it, defense is easier than attack. "But defense has a passive purpose: preservation; and attack a positive one: conquest...If defense is the stronger form of war, yet has a negative object, it follows that it should be used only so long as weakness compels and be abandoned as soon as we are strong enough to pursue a positive object."⁶ Similarly, Mao exhorts strategists that as strength increases, the change to the counter-attack is advantageous, and that duration is a tool to be used for gain: long time horizons can wear down the enemy.⁷ Herein lies the temporal tension in warfare; while most strategists advocate for rapidity in achieving a short victory, long time horizons have their own

⁵ Clausewitz, Howard, and Paret, 93.

⁶ Clausewitz, Howard, and Paret, 358.

⁷ Mao Tse-tung, *On the Protracted War* (Peking: Foreign Languages Press, 1960), 43–44.

advantages. When viewed by objective accomplishment, both horizons and objectives have their merits. However, to truly master time in warfare, the strategist must understand how and when to use both short and long time horizons. The question now becomes, what goes into a time horizon's estimation?

Time Horizon Influencers

The time required to achieve the object requires a strategy, which is the time horizon. The time horizon is an amalgamation of thoughts, estimates, and predictions from various sources. The most prescient of these come from the temporal and physical trinities. These trinities bring for the most important temporal and physical elements which influence time horizon selection (fig 1).

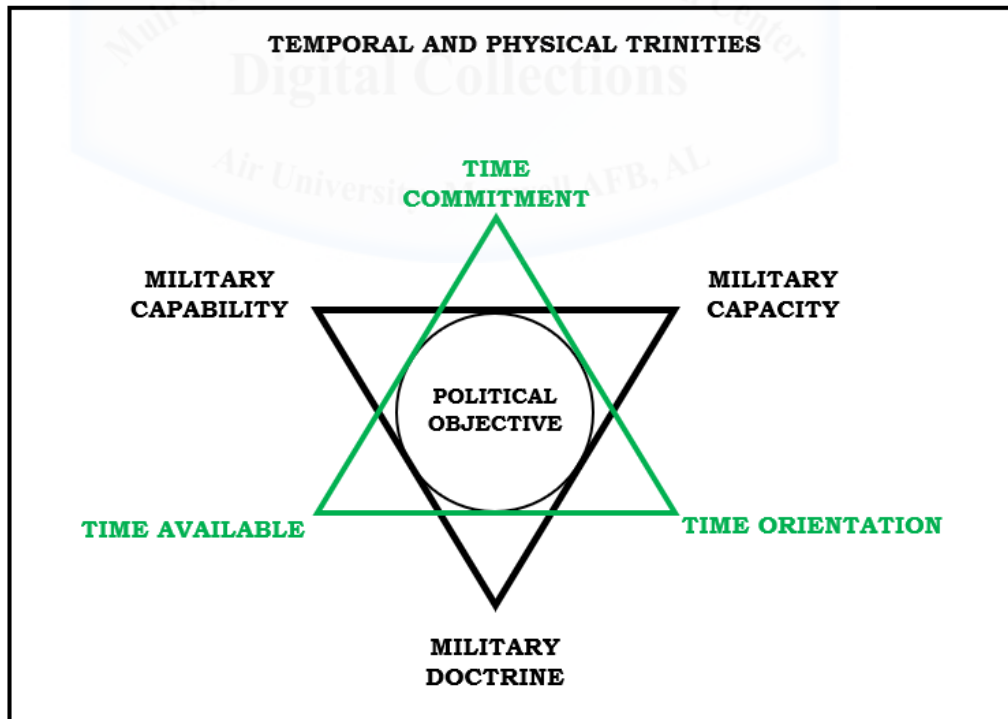


Figure 1: Temporal and Physical Trinities.

Source: Author's own work.

Temporal Trinity

The three elements which make up the temporal trinity are the time available, time orientation, and time commitment. All three of these elements are cognitive and are inherently perception based. They play a significant role in time horizon selection, and the elements interact dynamically. For example, while the U.S. may have a short time orientation, when combined with a sense of long time available and a long time commitment, they can select a long time horizon as demonstrated in the case of World War II.

Politicians and strategists weigh their time horizon selection heavily on the amount of time they think they have available to achieve the object. Therefore, time available can be considered a constraint or a resource. If time is seen as a constraint, military strategists and decision-makers will lean toward a short time horizon as the need for a fast tempo and quick result are required in the time available. Conversely, if time available is seen as plentiful and a resource, strategists will factor a long time horizon and base planning according to the time required to accomplish the task unconstrained by deadlines.

Cultural time orientation exerts its influence on time horizon selection by framing the way societies perceive time: past, present, and future. Short time orientations favor short time horizons based on the shared goals of quick results, while long time orientations prefer the ideas of perseverance and sustained efforts toward slow results.⁸ While these orientations can change as in the aforementioned case of the U.S. in World War II, they tend to support time horizons of similar characteristics.

⁸ Geert H. Hofstede and Gert Jan Hofstede, *Cultures and Organizations: Software of the Mind*, Rev. and expanded 2nd ed (New York: McGraw-Hill, 2005), 212.

The last temporal element is time commitment. Time commitment is the amount of temporal resolve opponents have for the achievement of the political object. As Clausewitz argues, the object determines the duration, and that if the sacrifices exceed the value of the object and the object must be abandoned, then the temporal aspect of commitment has a heavy role in time horizon selection. Hence, understanding how *long* an opponent is willing to sacrifice to accomplish the goal is a critical factor in selecting a time horizon. Long or infinite time commitment support long time horizon selection and limited time commitment will favor short time horizons.

Physical Trinity

The three elements of the physical trinity are: military doctrine, military capability, and military capacity. These three elements have a significant influence on the selection of a time horizon as they are the physical tools that determine a belligerents temporal abilities.

The most critical of these three is military doctrine. As Gray notes, “military organizations develop and employ doctrine to train large numbers of people with equipment in sufficiently standard modes of behavior for them to be predictable instruments of the commander’s will.”⁹ Leonhard furthers this thought, stating, “doctrine serves to guide the development of weapon and equipment, the organization and administration of armies.”¹⁰ Therefore, doctrine drives the type of warfare a military employs and what kind of military hardware it uses. Warfare can be regular or irregular, with the intention to either exhaust (attrition warfare), or to annihilate (maneuver warfare).¹¹ Maneuver warfare with

⁹ Gray, *Modern Strategy*, 36.

¹⁰ Leonhard, *Fighting by Minutes*, xvii.

¹¹ Gray, *Modern Strategy*, 159–60.

regular means favors a short time horizon, while attritional warfare favors long time horizons, using both regular and irregular means.

Author Alan Hinge best defines military capability simply as “the ability to achieve a desired effect in a specific operating environment.”¹² Ashley Tellis believes the “notion of military capability as the output level of national power is premised on the understanding that a country’s military organizations receive national resources and transform them into specific warfighting capabilities. The warfighting capabilities thus generated are effective to the degree that they enable a country’s leaders to impose their will on enemies, existing and potential.”¹³ Therefore, strategists and decision-makers who have a high military ability, akin to Clausewitz and Mao’s descriptions of strength, favor short time horizons as they perceive an asymmetric advantage in capability. Conversely, belligerents with low military capabilities will tend to select long time horizons, in efforts to either build capacity with time or possibly to choose irregular warfare means.

Lastly, and often forgotten, is the element of capacity, which is the time for which conflict can be sustained.¹⁴ Capacity is enabled by the economy, force structure, logistics, and the military-industrial base. The element of capacity can constrain or enable military actions. In the case of the Israelis in 1973, the low capacity of its military drove a short time horizon as it could not sustain operations for a long period of time. Conversely, in the case of World War II in the Pacific, the United States, was enabled by its heavy industrial mobilization, the vast quantities of

¹² Alan Hinge, *Australian Defence Preparedness: Principles, Problems and Prospects: Introducing Repertoire of Missions (ROMINS) a Practical Path to Australian Defence Preparedness* (Canberra: Australian Defence Force Academy - Australian Defence Studies Centre, 2000), 15.

¹³ Tellis, Ashley J., Janice Bially, Christopher Layne, and Melissa McPherson, “Measuring National Power in the Postindustrial Age” (Santa Monica, CA: RAND Corporation, 2000), 134, https://www.rand.org/pubs/monograph_reports/MR1110.htm.

¹⁴ Anthony D. Mc Ivor, *Rethinking the Principles of War* (Naval Institute Press, 2005), 328.

hardware and people, and the logistical backbone to bring it to bear.¹⁵ For opponents choosing to follow an irregular guerrilla war, the capacity to sustain operations can be indefinite as the needs of the fighting forces are low. Consequently, those opponents with limited capacity will tend toward short time horizons, while opponents with abundant military capacity will favor long time horizons.

Harmony and Tension

When political decision-makers direct the creation of military plans, planners may use their own estimation of time required to accomplish the objective, they may be told to accomplish an objective in a set period of time. Professor of International Relations Yaacov Vertzberger points out, “it is frequently the case that high-level civilian policymakers who make strategic decisions on intervention [war] do not have the experience to understand the military modus operandi and relate it correctly to the time requirement of the operation at hand. On maps, distance and terrain may appear to them a less impressive hindrance than they actually are. Once faced with the politician’s expectations, generals are often reluctant...to admit that they cannot carry out their tasks within the allotted time.”¹⁶ Often, “decisionmakers “fail to enumerate all the time-consuming components of planned actions, which results in their systematically underestimation the time required to carry out the plan. Field commanders are left with the task of translating the plan into concrete operations, and they are not always aware of the time frame imagined by the political leadership; indeed, they often incorrectly assume that it is up to them to set the time frame.”¹⁷

¹⁵ Phillips Payson O’Brien, *How The War Was Won: Air-Sea Power and Allied Victory in World War II* (Cambridge: Cambridge University Press, 2015), 5.

¹⁶ Yaacov Vertzberger, *Risk Taking and Decision making: Foreign Military Intervention Decisions* (Stanford, Calif: Stanford University Press, 1998), 50.

¹⁷ Vertzberger, 50.

Militaries are commonly subordinate to political authority and as such can be forced to adopt a time horizon that may not be in harmony with a reasonable probability of success to accomplish it. This incongruence of political expectations and military realities stems from a reluctance to discuss explicitly time horizons.

Short Time Horizons

Short time horizons favor the offense, and are generally linked to an attacker's positive political objective. Speed is key to short time horizons, as the strategists who employ them desire swift victories at little cost. Therefore, they employ high tempo at all levels of war with a desire to reach the decisive point quickly. Both Clausewitz and Sun Tzu argue that quick and decisive victory is the optimal way to fight a war, while protracted warfare is to be avoided.

The temporal trinity influences leaders and strategists to select short time horizons based on the desire for fast results due to a perceived scarcity of time available. Cultures with short time orientations desire quick results and therefore will favor short time horizons. Political leaders will support short time horizon selection if they themselves have a short time horizon or view the people to favor a short time horizon. As such, political leaders seek to minimize the duration of the people's sacrifice, and in turn harness their short temporal commitment to the political purpose before it runs out.

Physically, military doctrines of maneuver favor short time horizons because the idea of speed is inherent to that style of warfare. Most short time horizons opponents possess highly capable regular military forces. Those with short time horizons seek to seize the initiative and elect to use surprise, deception, and high tempo to do so. They see the lengthening of time horizons as failure, and act aggressively to avoid it. As time runs out, short time horizon decision-makers will seek to

bring the decisive point forward in time to meet their deadline by escalating the intensity of the conflict.

Table 3: Characteristics of Short and Long Time Horizons

Characteristics of Short and Long Time Horizons	
SHORT TIME HORIZON	LONG TIME HORIZON
<p>CONCEPTUAL Positive Objective Constrained by Time Cultural Short Term Orientation Limited Time Commitment High Military Capability Low or High Capacity Desires fast results Maneuver Attacker Fights on foreign land Impatient Seeks Gains Avoids Losses Risk Acceptance High Clock is counting down Predisposed to Escalation Views Long Time Horizons as failure Does not value future gains as much as short term gains</p> <p>INDICATORS Usually Attacker Offensive Posture Surprise Operations Maneuver Doctrine Blitzkrieg Tactics Stated Positive Political Objective Military Timetables from outset have defined end date</p>	<p>CONCEPTUAL Negative Objective Unconstrained by Time Cultural Long Term Orientation Indefinite Time Commitment Low Military Capability High Military Capacity Perseveres for slower results Attrition Defender Fights on own soil Patient Seeks to avoid losses Avoids risky gains Normal Risk Acceptance Clock is counting up Predisposed to Digging In Views Long Time Horizons as success Does not value short term gains as much as long term gains</p> <p>INDICATORS Usually Defender Defensive Posture Reactive Operations Attrition Doctrine Guerrilla or Hybrid Tactics Stated Negative Political Objective No state military timetable for operations at outset</p>

Source: Author's own work

Long Time Horizons

Defenders usually adopt long time horizons if the objective they seek is negative. Opponents with long time horizons aim to engage forces in a contest similar to a marathon. Strategists have more options available to them with long time horizons as they can modulate the tempo of operations at the operational and tactical levels of war. Long time horizons are built upon the concept that time is not a constraint, but an enabler, allowing strategists and political leaders to plan a strategy that is focused not on how much time is available but how much time is required to achieve the stated political aims. Thus, decision-makers of long time horizons are more apt employ strategic patience. This patience is usually a key tenant of a cultural long time orientation,

and when coupled with an indefinite time commitment, decision-makers often favor long time horizons. In the case of the World War II in the Pacific, the Japanese were willing to fight to the death of every Japanese citizen as a result of the heavy influence of the temporal trinity.¹⁸

The physical trinity influences on a long time horizon are based on the idea that the war will have a long duration. Therefore, long time horizon opponents usually have a military doctrine of attrition with a heavy emphasis on defense. This defensive posture allows for higher capacity of forces, as the tyranny of distance to defend a home territory is much less than having to project power. As Clausewitz advises, time favors the defender rather than the attacker. Thus, the defender's military capabilities may be on par or weaker than the attacker's--though by selecting a long time horizon, the defender hopes to exhaust his enemy.

While long time horizons can use duration as a weapon to force exhaustion, they can still seek to end the war at the decisive point. As time progresses, even for long time horizon belligerents, the end will eventually appear on the horizon. Therefore, those with long time horizons will move with deliberate speed and tempo, but they always seek to find the opportunities which will accelerate the end of the war while staying committed to the long time horizon. While Clausewitz and Sun Tzu guard against long war due to its significant cost, the savvy strategist understands that long time horizons have their place in war.

Short versus Long Time Horizons

War between an opponent with a short time horizon and one with a long time horizon is characterized as a war of opposites. The short time

¹⁸ Richard B. Frank, *Downfall: The End of the Imperial Japanese Empire* (New York: Random House, 1999), 312.

horizon, usually the attacker, will seek to engage the opponent at the strategic level with speed and intensity, while the defender will pursue a slow and modulated tempo. In seeking a quick victory, the short time horizon belligerent will use maneuver warfare to offset the slower doctrine of attrition. However, the attritional doctrine is strategically patient, and over time seeks to exhaust the rival which is not well-suited for sustained operations, as most short time horizon opponents have limited time commitment and capacity. The defender has these elements in abundance.

Therefore, these conflicts are characterized by the short time horizon opponent escalating the situation as time runs short and a there is a desire to bring the decisive point forward. Conversely, the defender with a long time horizon will exercise strategic patience by simply digging in and waiting the attacker out. As Clausewitz notes, time favors the defender. Therefore, time available for a defender is high, whereas the short time horizon of the attacker can frustrate them by implying inherent time pressure. This time pressure will cause short time horizon decision-makers to take riskier decisions as a result of this induced stressor. The long time horizon decision-maker will retain their normal decision-making preferences.

Short versus Short Time Horizons

When short time horizons contest each other, the conflict is characterized by high tempo and short duration. These engagements rarely emerge in modern warfare, as it usually pits full military capability against full military capability in a compressed duration. Consequently, these competitions can become highly escalatory. This type of conflict is akin to that of a sprint; as one opponent take actions to accelerate victory, the other will counter these operations with even faster

operations. As these operations have a very intense magnitude, they blow past the decisive point without noticing.

This is the quintessential misapplication of Boyd's OODA loop. If both opponents feel a pressure to make rapid rates of advance, they will continue sprint faster and faster until eventually one side is so badly bludgeoned that they concede, or both sides run out of capacity and options. In the case of opponents with nuclear weapons, there is a real fear of nuclear escalation. Furthermore, in addition to faster action, the temporal strategies employed may result in very high attrition, a concept usually associated with long time horizons. However, as short time horizons move so quickly, the feeling of time compression serves to emphasize time pressure. Short time horizon decision-makers consequently feel the need to respond quickly, because there is limited time available for deliberation. Thus, short time horizon decision makers may be more prone to select risky decision as a result of time pressure.

Long versus Long Time Horizons

When long time horizon belligerents square-off, their confrontations are characterized as wars of exhaustion. They usually involve a conflict with many reversals of fortune. Thus, at different times throughout the conflict, the objectives may change from positive to negative. Time commitment is high in long time horizons, driving both parties to not shy away from sacrificing significantly as the value of the political object is great. In either case, however, at the strategic level fighting retains a slower tempo than that of the operational and tactical, which can modulate between low and high tempo.

In pitting long time horizons against one another, both sides will have a tendency to dig in for the long haul until the situation becomes so unbearable for one opponent that they either sue for peace or are destroyed. While both sides are committed to sustained fighting and have

high capacity to continue fighting, they are not content to “practice bleeding,” and will look for innovative ways to achieve their victory efficiently. Therefore, opportunity becomes a key temporal aspect in long time horizon conflict. These opportunities can be material or non-material “windows of opportunity”, to accelerate the reaching of the decisive point. Lastly, as time is abundant in long time horizons, time pressure does not affect decision-makers in the same way as those who have short time horizons. Long time horizon decisions makers feel time pressure both perceived and real, but have enough time available to avoid being drawn into a state of feeling compelled to execute unwarranted risky-decisions.

Time Horizons, Time Pressure, and Risk

This study advances the argument that ultimately, time pressure causes opponents to seek to shorten a war or lengthen it in line with their executed time horizon. Furthermore, this study argues that time pressure has a significant influence on decision-makers based upon their selected time horizon. Time compresses as time passes, and when time starts to run out strategically, decision-makers feel stress and evaluate their decision-making differently. As Dolman notes: “The less time available to make decisions, the more essential it becomes to make sound ones. Errors are magnified because there is less time for recovery. Choices become limited because there is less time to develop and explore options. As the end looms, decision makers are pressed to take specific actions that seem less choice than a necessity. Backed into a corner, out of time, the decision maker perceives that there is a very limited number of options. Time is a scarce and depleted commodity.”¹⁹

¹⁹ Everett C. Dolman, *Pure Strategy: Power and Principle in the Space and Information Age*, Cass Series--Strategy and History 6 (London ; New York: Frank Cass, 2005), 153.

In the cases of opponents who choose short time horizons, time pressure is inherent from the outset, while long time horizons do not often experience time pressure. However, once time in conflict starts to march forward, time pressure enters the equation. Time pressure can result from discord within the will of the masses, a stalling in military advances, or an individual's desire for hostilities to be brought to a favorable end sooner than originally anticipated.

This dynamic well-explored in existing literature. Vertzberger writes, "The amount of time available to decisionmakers can be crucial in determining the nature as well as quality of the decision-making debate. The shorter the time for deliberation, the more likely decisions are guided by a few core values and beliefs, schemata, stereotypes, historical analogies, organizational OSPs, and cultural biases."²⁰ Cognitive psychologist Dan Zakay explains, "decision-making under time stress may lead to the utilization of simple, nonlinear decision strategies resulting in suboptimal performance," and that "as time pressures increase, the tendency to overestimate what can be accomplished within the available time increases, because people desire to accomplish all their tasks, their ability to do so being an indicator of competence and success."²¹ Cognitive researchers Anne Edland and Ola Svenson indicate that, "when expected values are negative, [as in losing or negative repercussions] time pressure increased risk-taking."²²

Overall, time pressure acts as a catalyst for immediate decisions, with short time horizon decision-makers taking more risk, while long time horizon decision-makers remain normal in their decision-making. This study will investigate three cases of time pressure and its effects on opponents of varying time horizons and the decisions made as a result.

²⁰ Vertzberger, *Risk Taking and Decisionmaking*, 135.

²¹ Ola Svenson and A. John Maule, eds., *Time Pressure and Stress in Human Judgment and Decision Making* (New York: Plenum Press, 1993), 60.

²² Svenson and Maule, 31.

Chapter 4

Short versus Long Time Horizons: The Vietnam War 1972-1973

Both belligerents need time; the question is...which of the two can expect to derive special advantage from it.

-Carl von Clausewitz

Overview

The Vietnam War was a classic case of David versus Goliath. The United States, the world's pre-eminent economic power, possessed a strong conventional and nuclear military force that in many ways was ill-suited to deal with the low-tech guerrilla warfare waged by the Viet-Cong in South Vietnam as well as the patient warfare conducted by the North Vietnamese. Thus, the U.S. took on the role of strategic offensive with a strategy based on a short time horizon, while the Democratic Republic of Vietnam (DRV) and its Viet-Cong allies took on a strategic defensive strategy with a long time horizon. The two strategies in competition brought on a clash not only of forces but also of temporal elements which shaped the conflict's character. Realizing a conventional "victory" was beyond its grasp, the U.S. sought to disengage from the war, while the DRV sought to continue exhausting its attacker. With no victory in sight, the U.S., as the attacker with a short time horizon, experienced the stress of time pressure. As this study predicts, American leaders sought to end the war before their time had "run out." U.S. decision-makers thus became risk-acceptant and escalated the intensity and rate of military operations to force an ostensibly favorable end before the expiration of their perceived time horizon. The North Vietnamese, working from a long time horizon, became more resolute in their fighting and simply chose to wait out the U.S. while continuing to fight a protracted war of exhaustion.

The Conflict

The United States and Democratic People's Republic of Vietnam squared off in major combat operations from 1965 to 1973. What started as a civil war between a communist North and a democratic South Vietnam had turned by 1968 into a war largely between the United States and the DRV. While the North wanted a unified Vietnam under Communist control, the U.S. desired to contain Communism and supported a nominally democratic and U.S.-friendly South Vietnam. In early 1968, following the shock of the Tet Offensive, the loss of U.S. public support for the war accelerated. As there was no winnable strategy to force the DRV to concede their position, the U.S. wanted a way out while preserving its prestige. Following Tet, General William Westmoreland had requested an added 206,000 men to enable the "promised" American victory.¹ However, the administration concluded "Westmoreland could not guarantee victory with the additional troops, but only postpone a communist triumph."² Secretary of Defense Clark Clifford argued that if the "President had approved Westmoreland's request for more troops, the General would come back in another month with a request for "another 200,000 or 300,000 with no end in sight."³

By 1972, the U.S. position in Vietnam had become a shadow of its former self. The cost of maintaining 535,000 troops in South Vietnam had drained resources, and their withdrawal by early 1972 was seen as a prudent move to start gradual American disentanglement from a war that could not be won with more troops.⁴ To offset the vacuum of U.S. arms and men, the U.S. enacted a policy of Vietnamization, whose aims were to bolster the capability and capacity of the Saigon regime's Army of

¹ Robert D. Schulzinger, *A Time for War: The United States and Vietnam, 1941 - 1975*, 1. issued (New York,: Oxford Univ. Press, 1998), 264.

² Schulzinger, 265.

³ Schulzinger, 265.

⁴ Schulzinger, 277.

the Republic of Vietnam (ARVN). Vietnamization turned over to the Saigon government significant funding, massive quantities of weaponry, and encouraged manning increases of to 1,000,000 soldiers with another 100,000 being trained in U.S. military schools. While the U.S. kept critical U.S. military advisors in place to assist their ARVN counterparts, Vietnamization allowed the U.S. the opportunity to start backing away from the conflict and to reduce the numbers of casualties, which had become a point of contention on the home front.⁵ Attempting to capitalize on a reduced American force and a immature ARVN, the North attacked in mass in what came to be called the Easter Offensive of 1972. The massive assault led to a crushing conventional defeat for the North at the hands of airstrikes and superior American conventional tactics. In response to the Easter Offensive, “the United States increased its aircraft stationed in or near Vietnam to close to one thousand. The number of B-52s rose from 80 to 140, and six aircraft carriers were stationed near Vietnam. The number of air and naval personnel in and near Vietnam rose from 47,000 to 77,000 at the time when the number of ground troops had fallen from 95,000 to 68,100.”⁶ As ground power waned, the U.S. reliance on an air power became the favored chess piece newly elected U.S. President Richard Nixon, would use to get American out of Vietnam.

With mounting time pressure, President Richard Nixon, elected to his first term in 1967 on a pledge to get the U.S. out of Vietnam, turned to his military for a way to fulfill that promise. Nixon chose to apply a large-scale military effort in the form of an air campaign dubbed “Linebacker II in 1972.”⁷ The final plan for Linebacker II, or what came to be called the Christmas bombings, stressed a maximum effort in

⁵ Schulzinger, 277.

⁶ Schulzinger, 295.

⁷ Mark Clodfelter, *The Limits of Air Power: The American Bombing of North Vietnam* (Lincoln: University of Nebraska Press, 2006).

minimum time against “the most lucrative and valuable targets in North Vietnam.”⁸ From 18 to 29 December, B-52 bombers and tactical aircraft blasted fifty-nine military-related targets in and around Hanoi and Haiphong with twenty-thousand tons of high explosives.⁹ These bombings brought about the end to America’s involvement in the war, and total U.S. military withdrawal by 1973. This ultimately set the stage for the DRV to achieve their political objectives in 1975.

North Vietnamese Long Time Horizon

Vietnam has been subjugated to foreign rule for centuries under the Chinese, French, Imperial Japanese, the French again, and lastly, from the presence of the United States. Culturally, the Vietnamese, possess a long time orientation, and the war against the U.S. and the regime in the South was to the Communist leadership in Hanoi an unlimited war of survival in which all the most basic values of Vietnamese society—loyalty to ancestors, love of country, resistance to foreigners—were involved.¹⁰ The DRV’s ultimate goal, was unification of Vietnam under Communist rule, an aim that they were determined to pursue for an indefinite period of time.

Conventionally weaker than the U.S. in a military sense, with an economy dwarfed by that of their American antagonist, the DRV needed a strategy to offset the strength of the world’s preeminent superpower. North Vietnamese General Vo Nguyen Giap was an earnest student of Mao Tse-Tung and adopted his concept of protracted war.¹¹ Giap created

⁸ Clodfelter, 184.

⁹ Robert Anthony Pape, *Bombing to Win: Air Power and Coercion in War*, Cornell Studies in Security Affairs (Ithaca, N.Y: Cornell University Press, 1996), 204.

¹⁰ Ronald H. Spector, *After Tet: The Bloodiest Year in Vietnam* (New York: Toronto: New York: Free Press; Maxwell Macmillan Canada; Maxwell Macmillan International, 1993), 314.

¹¹ Lea E. Williams, “The Military Doctrines of Mao Tse Tung Applied in Vietnam,” *Journal of Southeast Asian History* 4 No.2, no. September (1963): 130.

his philosophy of protracted war in similar fashion to Mao's, who was now the leader of China, one of their Communist patron-states along with the USSR. Influenced by living in China, Giap prepared his guerilla "forces for a war that will be long and will be divisible into three definite stages whose length cannot be determined."¹² The war would consist of a strategic defensive, then guerrilla action, and ultimately the counteroffensive. The DRV harbored no illusions about winning a Western-style victory over the Americans. Instead, they were willing to accept the high cost of American ground and air attacks in the belief that they could hold out longer than the Americans or the South Vietnamese.¹³ Vietnamese revolutionaries always predicted that the outsiders—French or American—would soon weary of engaging an adversary many thousands of miles from home. Giap merely had to maintain sufficient activity to keep the coffins going home to the United States. Without American support, what the Communists called the puppet regime in the Saigon would then fall. Time was on Giap's side, "as it had always been."¹⁴

The long time horizon of the North Vietnamese and its associated strategy of protracted warfare promoted a low intensity conflict, a slow tempo, and a resolute temporal commitment. Mao's theories as executed by Giap saw occasional and limited conventional attacks in the North by the North Vietnamese Army (NVA) when favorable conditions prevailed, and insurgency tactics in the South. While the NVA and Viet-Cong both suffered a dramatic defeat in the Tet Offensive in 1968, they used the following time to regain their strength in preparation for the third phase of Mao's strategy. Regrouped and strengthened in 1972, the DRV was ready to enter the third and final stage of their war, the conventional

¹² Lea E. Williams, "The Military Doctrines of Mao Tse Tung Applied in Vietnam."

¹³ Schulzinger, *A Time for War*, 259.

¹⁴ Julian Thompson, *The Lifeblood of War: Logistics in Armed Conflict*, 1st English ed (London ; Washington : New York, N.Y: Brassey's (UK) ; Distributed in North America by Macmillan, 1991), 206.

counterattack, during which a supposedly fatally weakened regime would be toppled, and the instruments of Communist rule put in place.¹⁵ By 1972 the DRV had amassed significant conventional military assets, and the continued support of Chinese and Soviet arms bolstered their capacity to continue operations. The Easter Offensive unleashed the North's conventional assault in March and April of 1972.

But this new reliance on conventional military assets left the DRV vulnerable to fighting the type of war U.S. forces preferred. By changing to conventional operations for the last phase of protracted warfare, the North Vietnamese also became reliant on re-supply from China and the USSR. The North Vietnamese Army had an inflexible and inadequate logistics system that proved highly vulnerable to U.S. airstrikes and expended supplies at a rate faster than they could replenish. The capacity of the NVA plummeted throughout the spring and summer of 1972 as the flow of supplies from the USSR and China slowed as a result of U.S. air strikes and President Nixon's policy of détente with the DRV's Communist benefactors. While South Vietnamese forces put up a staunch resistance, Operation Linebacker I strikes stalled the NVA Easter Offensive, attrited the NVA's best divisions, and forced the NVA back to a defensive posture. Even when defeated in the field, however, the DRV did not abandon its aim of unification and continued to pursue a long time horizon of protracted warfare.

American Short Time Horizon

In 1968, newly-elected President Richard Nixon, who campaigned on the promise of getting the U.S. out of Vietnam, began his plan to end the war in Vietnam. "Eventually the new American President, Nixon, announced a new war policy based on four pillars: Vietnamisation [sic],

¹⁵ Mao Tse-tung, *On the Protracted War* (Peking: Foreign Languages Press, 1960), 47.

building up and arming the ARVN, the navy and the air force, so they could take over all the fighting; negotiations with the North Vietnamese for an honorable peace; pacification of the countryside in South Vietnam; and American troop withdrawal.”¹⁶ Nixon and his generals sought the conditions for a relatively quick military victory that could veil America’s strategic retreat. The strategies of Vietnamization increased operational tempo and relaxed targeting constraints. The resultant massive air attacks were critical to achieve an actual success on the battlefield and a perceived strategic victory of “peace with honor.” While the war had been ongoing since 1965, the time horizon of the U.S. remained short in the minds of strategy makers in 1972. The U.S. deployed over the course of just a few years a large conventional force in Southeast Asia that was much more capable than that of the North Vietnamese, however, it was a force that was prepared to fight an all-out conventional and possibly nuclear war with the Soviet Union, not a guerrilla war in the jungles of Asia. After 1968, with troop presence off 90% from its peak in 1968, victory for the United States in Vietnam meant “a strategic exit sufficiently graceful that the superpower could disengage with some political dignity intact.”¹⁷

Any thought that the United States would be able to depart a self-sustaining and militarily capable government in South Vietnam in two or three years should have been dismissed as wishful thinking. That was a civic “ten- or twenty-year project,” and the U.S. had employed doctrine based on the employment of massive conventional firepower prepared for a showdown in Eastern Europe against a modernized conventional Soviet force.¹⁸ Moreover the American time orientation was quite short in 1972, following the public backlash from the Tet Offensive. By 1972, U.S.

¹⁶ Thompson, *The Lifeblood of War*, 206.

¹⁷ Colin S. Gray, *Airpower for Strategic Effect* (Maxwell Air Force Base, Ala: Air University Press, Air Force Research Institute, 2012), 177.

¹⁸ Michael Lind, *Vietnam: The Necessary War* (New York, N.Y: Free Press, 2014), 260.

objectives changed from the containment of Communism and the preservation of an independent South Vietnam, to withdrawal with its prisoners of war and a decent interval between American exit and a possible collapse of the Saigon government.¹⁹ Following 1968, the U.S. commitment to Vietnam had dwindled, and the reaction to U.S. casualties had led many Americans to demand an exit from an indefinite conflict. The U.S. simply had no stomach for a long war, especially by 1972. Richard Nixon finally brought a quick end to American involvement in the war by escalating the intensity and tempo of conflict to unprecedented rates, forcing the North Vietnamese back to serious negotiation talks to allow the U.S. to achieve its stated political objective of “peace with honor.”

Short and Long Time Horizons in Conflict

The contrary time horizons of the DRV and Viet-Cong on one hand, and the U.S. on the other, provide a benchmark case of strong versus weak, offense versus defense, short versus long, and fast versus slow. The temporal aspect of this war bears out a way of thinking about the war. Following the Tet Offensive in 1968 and the election of Richard Nixon, the United States embarked upon a strategy whose temporal strategy was marked by short duration to end the war through high-intensity tempo and speed. The short time horizon both reflected and drove the perception among America’s political elite that the U.S. was running out of time and Nixon himself knew “he was the one racing against the clock to achieve a military solution against the growing pressure to end the war.”²⁰ The time pressure placed on Richard Nixon

¹⁹ Schulzinger, *A Time for War*, 290–91.

²⁰ David F. Schmitz, *Richard Nixon and the Vietnam War: The End of the American Century*, Vietnam: America in the War Years (Lanham, Maryland: Rowman & Littlefield, 2014), 71.

was immense. He ran on a campaign promise to get the U.S. out of Vietnam with honor, which was a departure from the previous administration's initial ideas that decisive victory could be achieved quickly with more men and funding. Following the May 1970 Kent State shootings, the political uproar caused by the release of the *Pentagon Papers*, Henry Kissinger's unjustifiably optimistic statement that "peace was at hand," the intense combat of the Easter Offensive, and the threat that Congress would cut funding for the war when it returned from the Christmas holiday in January 1973, time was as great a threat to Nixon's policy aims as the NVA.

As historian Robert Schulzinger notes, "once the *Pentagon Papers* became part of the public debate, it shortened the time remaining for Nixon to bring the war to an end."²¹ Kissinger's statement "We believe that peace is at hand, we believe that an agreement is within sight," was a misguided statement which inflated expectations that in the United States that the war might soon be over.²² As historian Mark Clodfelter argues the "January 1973 time limit was the President's greatest restraint on applying military force after his reelection," and so Kissinger, recommended two options to Nixon: "either intensify the bombing of North Vietnam immediately to compel the Communists to talk *seriously*, or wait until January to resume negotiations."²³ The inflated expectations of getting out of Vietnam soon, complicated by the long time horizon of the DRV, made the idea of compellence through bombing an attractive option.

Compellence backed by a credible and destructive threat is a method for an opponent to place a time of his choosing on the culminating point of a war. Compellence must have a temporal element

²¹ Schulzinger, *A Time for War*, 291.

²² Stanley Karnow, *Vietnam, a History*, 2nd rev. and updated ed (New York, N.Y: Penguin Books, 1997), 666.

²³ Clodfelter, *The Limits of Air Power*, 178.;Karnow, *Vietnam, a History*, 666–67.

to enforce the stress of time pressure on the opponent. As deterrence theorist Thomas Schelling writes, “compellence has to be definite, there has to be a deadline, otherwise tomorrow never comes.”²⁴ According to Stanley Karnow, “On December 14, [Nixon] sent an ultimatum to North Vietnam to begin talking ‘seriously’ within seventy-two hours—or else.”²⁵ For Nixon, the ultimatum reflected a determination to escalate the situation not only in the intensity of operational tempo, but also in the magnitude of its intensity. Facing the threat of a Congressional cut-off in funding, Nixon was nearing the end of his time horizon, and as such was prone to risk-seeking behavior. “Nixon was certain that Congress would stop the war when it met in January. As that deadline neared, he became more willing to risk the loss of public support through increased military pressure in Vietnam.”²⁶ Furthermore, Nixon took operational risk in the potential loss in high numbers of Strategic Air Command’s premier and then state-of-the-art strategic nuclear bomber, the B-52. The DRV’s capital Hanoi and its principal port-city of Haiphong in 1972 were some of the most heavily defended cities in the world outside of Moscow. By sending massive bombing raids of the nation’s most capable bomber, Nixon accepted a significant risk in the potential loss of material, aircrews (each B-52 had a six-man crew), and the exploitation of technical and tactical secrets from downed planes or information given up by captured aircrews. Nixon also risked a potential breakdown in the international arena if détente collapsed as a result of the strikes. Indeed, later during Linebacker II, both China and the Soviet Union, made public statements indicating that détente would end unless the raids [Linebacker II] ceased.²⁷ Nixon however remained resolved to see his

²⁴ Thomas C. Schelling, *Arms and Influence* (New Haven, CT: Yale University Press, 2008), 72.

²⁵ Karnow, *Vietnam, a History*, 667.

²⁶ Clodfelter, *The Limits of Air Power*, 178.

²⁷ James William Gibson, *The Perfect War: Technowar in Vietnam*, 1st ed (Boston: Atlantic Monthly Press, 1986), 417.

decision through. While no stranger to boldness, Nixon's escalation took on a theme of what he would call the "madman theory," and showed a sort of brinksmanship. "The president believed this policy would demonstrate his willingness to take military action in order to win that Johnson had not and, in the process deliver a military victory that would force Hanoi to quit fighting and capitulate to American terms for ending the war."²⁸

As the attacker with a short time horizon, Nixon sought a quick way to end the war favorable to the U.S. through the enormous bombing campaign of Linebacker II. Launched in December, the campaign was referred to as the "Christmas bombings," and Nixon and his subordinates sought rapid results: the air assault was free of the restraints of the Johnson administration, conducted without cause for concern over Soviet or Chinese reprisal, and executed massively from the start free from the limits of gradual escalation. Robert Pape gives a concise account of the bombings:

To bring Hanoi back to the table, the United States launched a new air offensive starting on 18 December, nicknamed the "Christmas bombing." Linebacker II's purpose and target-set largely paralleled those of Linebacker. The campaign, said the Air Force, "was designed to coerce a negotiated settlement by threatening further weakening of the enemy's military effort to maintain and support his armed forces." The target set consisted of military targets north of the twentieth parallel which had not been bombed since 23 October. The Linebacker I and II target sets were so similar both because Linebacker II was deliberately designed to repeat the earlier operation and because North Vietnam had used the bombing halt to regenerate key choke points and facilities in its logistics network. For example, after the cessation of bombing north of the twentieth parallel, Hanoi rebuilt supply depots, made railroad lines from China serviceable again, resumed coastal shipping north of the twentieth parallel, and reopened rail lines between Hanoi

²⁸ David F. Schmitz, *Richard Nixon and the Vietnam War: The End of the American Century*, Vietnam: America in the War Years (Lanham, Maryland: Rowman & Littlefield, 2014), xiii-xiv.

and Haiphong. Linebacker II, however, followed a quicker pace than before; in twelve days the United States flew almost half as many sorties against Hanoi, Haiphong, and the Chinese buffer zone as in the six months of Linebacker I.²⁹

In Linebacker II Nixon demonstrated for the first time any President will to win.³⁰ Even with the increased risks associated with his decisions, Nixon brought the decisive point to him through the use of the full weight of his military force in theater. By intensifying the tempo of the bombing, Nixon brought about an enormous rise in the intensity of the war. Furthermore, by dramatically increasing aircraft sortie production rates (aircraft flying more sorties each day and thus dropping more tonnage of weapons), decreasing times over target, and employing a wider range of tactical and strategic aircraft to include massive numbers of B-52s, Nixon had increased the speed and tempo of U.S. warfighting in an attempt to shorten the duration of war (table 4). This combination of temporal manipulations was risky and was the function of time pressure. In the end, it allowed the U.S. to achieve its objectives before its time horizon ran out.

²⁹ Pape, *Bombing to Win*, 200.

³⁰ Thompson, *The Lifeblood of War*, 216.

Table 4: North Vietnam Sortie Summary.

<u>NORTH VIETNAM SORTIE SUMMARY</u>					
<u>Type Sortie</u>	<u>May 72</u>	<u>Jun 72</u>	<u>Jul 72</u>	<u>Aug 72</u>	<u>Sep 72</u>
USN Attack	3,920	4,151	4,175	4,746	3,937
USAF Attack	1,919	2,125	2,310	2,112	2,297
USMC Attack	23	34	8	38	102
TOTAL Attack	5,862	6,310	6,493	6,896	6,336
TOTAL Sorties*	10,982	12,121	12,879	13,316	13,233
B-52	1	271	308	572	411
	<u>Oct 72</u>	<u>Nov 72</u>	<u>Dec 72</u>	<u>Jan 73</u>	
USN Attack	2,674	1,716	1,383	863	
USAF Attack	2,214	1,606	1,548	716	
USMC Attack	84	79	119	50	
TOTAL Attack	4,999	3,401	3,050	1,629	
TOTAL Sorties*	11,368	8,909	7,894	6,731	
B-52	616	846	1,381	535	

*Excludes B-52 sorties.

Linebacker operations officially commenced on 10 May and terminated on 29 December 1972.

Source: Reprinted from Project CHECO Southeast Asia Report: Linebacker Operations September – December 1972, page 93

The DRV, as long time horizon defenders, responded as expected: they dug in and exercised strategic patience. The North Vietnamese simply had to bear the brunt of the attacks and stick to the plan of a protracted war that would continue to exhaust their attackers. The Vietnamese revolutionaries in both the North and the South took a much longer view than did their more impatient foes, because they believed they needed only to avoid losing in order to win their struggle.³¹ The DRV

³¹ Schulzinger, *A Time for War*, 328.

simply was prepared for the destruction that Linebacker II would set out to achieve.³² In a way, however, the North Vietnamese did feel the time pressure of the Christmas bombings, but their long time horizon in adherence to the goal of unification dictated that the acceptance of the Paris peace talks would only add a strategic pause toward their ultimate goal. While the North did recognize the tremendous destruction Linebacker II inflicted, they understood that they could end U.S. involvement by agreeing to an essentially meaningless treaty because without U.S. dollars and military forces, the Saigon regime would fade rapidly. Thus, the DRV could sign the so-called Paris Accords without losing their ultimate goal of an independent and unified Vietnam under Communist rule. Ultimately the DRV released American POWs, the U.S. withdrew all but a residual advising staff by the spring of 1973, and Nixon claimed, “peace with honor.”

Chinese leaders, including Mao, encouraged the DRV to wait out the Americans, as their time horizon allowed for flexibility in choosing when to complete the final phase of their strategy. Mao believed the most important thing for the North Vietnamese to realize “let the Americans leave. The situation will change in six months or a year.”³³ The North Vietnamese could then pursue their ultimate object of a unified Vietnam under Communist rule. While Nixon had delivered the ultimatum with a deadline attached to it, the DRV was essentially unmoved. The DRV did not feel the time pressure Nixon felt. Their negative goal of simply not losing granted DRV decision-makers more time to weigh options and make sensible decisions. In essence, the DRV could achieve more by agreeing U.S. terms, which would make the bombing stop, get the Americans out of Vietnam, pursue unification against a weak Saigon

³² Lien-Hang T Nguyen, *Hanoi's War an International History of the War for Peace in Vietnam* (Chapel Hill: The University of North Carolina Press, 2016), 299.

³³ “Conversations between Zhou Enlai and Le Duc Tho,” January 3, 1973, Beijing Report.

regime, and gain international prestige at the cost of the American retreat. For the North Vietnamese, the clock was always counting up, and each minute that ticked away was viewed as a small victory over the U.S. This contrast in time horizons defined not only a contrast in strategies but also showcases a difference in what time or lack thereof can grant decision-makers as they face the stress of making tough calls in the face of time pressure.

Conclusion

The trajectory of the Vietnam War drove the U.S. to shift its objectives from containing Communism and avoiding war with the USSR and China to peace with honor and the release of U.S. POWs. Ultimately Nixon's successful and highly escalatory compellence campaign in 1972 led to an agreement with the North Vietnamese. Time horizons and time pressure played a significant role in influencing both Richard Nixon and Le Duc Tho. According to the Official History of the People's Army of Vietnam, "on 29 March 1973, the last units of the U.S. expeditionary army and the armies of its satellites withdrew from South Vietnam. The longest, most expensive, most unpopular war of aggression in U.S. history had come to a tragic conclusion. After 18 years of combat filled with sacrifice and heroism, our soldiers and civilians had driven the U.S. expeditionary army, the most powerful army of aggression of the international imperialist out of our nation. We had fulfilled our strategic mission of fighting to force the U.S. to withdraw."³⁴ The DRV would use the withdrawal of U.S. forces to gather their strength and capitalize on their ability as stipulated in the Paris Peace Accords to leave their military forces in position in the South. In 1975, the North launched its

³⁴ *Victory in Vietnam: The Official History of the People's Army of Vietnam, 1954--1975: The Military History Institute of Vietnam*, Modern War Studies (Lawrence, Kan: University Press of Kansas, 2002), 330.

last offensive into South Vietnam. On 30 April 1975, DRV forces stormed the Independence Palace in Saigon, forced then South Vietnamese President Duong Van Mihn to surrender, and raised the Communist colors above a now unified Vietnam. The long time horizon of the DRV finally paid off, as it achieved its ultimate political objective.

The contest between two sides possessing a short and long time horizons has respectively become a common pairing for modern limited conflicts of weak opponents defending against stronger ones. One nation, the attacker, will adopt a short time horizon due to its perceived advantages and thought that it can accomplish the objective within a time commensurate with its temporal orientation. The other state, the defender, will pursue a lengthier war of exhaustion and commitment, using time as an asymmetric advantage capable of offsetting the offender's material advantages in achieving his objective. Both strategies play to their side's strengths while aiming to protect their weaknesses. This mismatch in temporal strategies has advantages and disadvantages to both parties; however, when time pressure is induced into the situation, the attacker tends to escalate the tempo of the conflict to bring the decisive point "to them", while the defender tries to keep it out of reach, or render it unimportant to another day and time.

Chapter 5

Short versus Short Time Horizons: The Yom Kippur War 1973

These constraints on the quality of decisions are augmented by the stress and anxiety created by a combination of the short time and high stakes involved.

-Alexander George

Overview

The Yom Kippur War of 1973 lasted for 19 days and almost brought about nuclear war between the United States and the Soviet Union, the patron states of the three major belligerents, Israel and Egypt, and Syria, respectively. Both the Israelis and Arabs (Egypt and Syria), had short time horizons in their application of military strategy. All opponents desired fast victories, and therefore relied upon highly intense and rapid tempos, resulting in one of the bloodiest and costliest wars in the region. The results of short time horizon opponents facing off against one another is that of highly escalatory conflict. Escalation in speed and intensity of the conflict are cornerstones of short time horizons. Wars where both opponents have short time horizons become akin to a sprinting race. As the clock rapidly counts down for both opponents, the fear of a swift defeat from highly intense fighting places intense time pressure on decision-makers to act immediately. The results of the Six Day War of 1967 would come to influence both opponent's time horizons in the Yom Kippur War, and ultimately lead to the short and almost apocalyptic results that were and could have been.

The Conflict

The Six Day War of 1967 left a defeated Arab League with diminished territory. Specifically, the Egyptians had lost the Sinai, and the Syrians the Golan Heights, to Israel, who now occupied and fortified these territorial gains. Additionally, Jordan lost the so-called West Bank, including East Jerusalem. To rectify these losses Egyptian President Anwar Sadat came to believe that another war was inevitable. After brokering an agreement for joint military operations with Syrian President Hafez al-Assad, Sadat planned a surprise attack on Israeli positions on the east bank of the Suez Canal while the Syrians planned to strike the Golan Heights. President Sadat addressed his sentiments in an address to the Egyptian people in 1972, “The state of total confrontation has become inevitable, and we are entering it whether we like it or not. The military situation must be made to move, with all the sacrifices that this entails. We must tell the world that we are here and that we can dictate our will.”¹ Finally, the “year of decision” arrived in 1973, and on October 6, at 2:05 P.M., the joint forces of Egypt and Syria launched Operation Badr, a synchronized, surprise military operation to attack Israeli positions along the Suez Canal and the Golan Heights.²

The Israelis did not anticipate nor believe that the Arabs would attack any time before 1975, and, as Chaim Herzog explains, “it was generally assumed that Israel would have adequate warning time in which to mobilize her reserves.”³ While Israeli military intelligence noticed a massing of Arab forces in the Sinai and along the Golan Heights in September 1973, these warnings were dismissed as either

¹ Ray Maghroori and Stephen M. Gorman, *The Yom Kippur War: A Case Study in Crisis Decision-Making in American Foreign Policy* (Washington: University Press of America, 1981), 9.

² Maghroori and Gorman, 10.

³ Chaim Herzog, *The Arab-Israeli Wars: War and Peace in the Middle East from the 1948 War of Independence to the Present* (New York, N.Y., U.S.A: Vintage Books, 1983), 239.

habitual readiness-exercises or reactions to Israeli actions.⁴ The exodus of Soviet troops and their families starting on 3 October also failed to convince the Israelis war was imminent.⁵ The Israelis did not understand this until the early morning of 6 October. Until then, they suffered from an extreme case of cognitive dissonance. As author Julian Thompson explains, “grave misperceptions over Arab intentions, partly as a result of overconfidence, led them into not believing what their intelligence was seeing.”⁶

At 4:00 A.M. on 6 October Israel finally accepted that the Arabs would attack. Seeking to defuse the situation, Meir called American Secretary of State Henry Kissinger to reassure him that Israel had no intention of attacking either Egypt or Syria, and that “since the Arabs were certain to be defeated, she suggested, the crisis must result from their misunderstanding of Israeli intentions.”⁷ In the meanwhile, Israeli Defense Force Chief of Staff, General David Elazar, had requested permission to launch a preemptive assault, as the Israeli Air Force (IAF) would be ready at 12:00 P.M. to launch a preemptive air strike. Prime Minister Meir did not approve this request, partly because the U.S. dissuaded a preemptive strike to prevent the Israelis from being portrayed as the belligerent.⁸ Historian Benjamin Cooling notes, that the American position stressed that “the Arabs must be seen as the aggressors for the sake of world public opinion, especially American opinion, since the United States was currently the Israelis’ only external source of sophisticated weaponry. Even a precautionary mobilization on any scale would have to be delayed until the very last minute to avoid

⁴ Chaim Herzog, 236–37.

⁵ Chaim Herzog, 237.

⁶ Julian Thompson, *The Lifeblood of War: Logistics in Armed Conflict*, 1st English ed (London; Washington: New York, N.Y: Brassey’s (UK) ; Distributed in North America by Macmillan, 1991), 220.

⁷ Henry Kissinger, *Years of Upheaval: The Second Volume of His Classic Memoirs*, 1982, 450.

⁸ Lon O. Nordeen and David Nicolle, *Phoenix over the Nile: A History of Egyptian Air Power, 1932-1994* (Washington, DC: Smithsonian Institution Press, 1996), 275.

accusations of provoking an attack.”⁹ Moreover, with the strategic depth gained from the 1967 War, Israel could take advantage of its geographical position and accept a first strike.¹⁰ With less than 10 hours of advanced warning instead of the 24-48 hours promised by Israeli intelligence, the Israelis were forced to suffer the first blow in a dazed state.¹¹

Gawrych argues “the surprise achieved by Egypt and Syria was complete, stunning virtually everyone in Israel. This success allowed the Egyptians to dictate the tempo of the battlefield during the first phase of the war.”¹² Thus, the Israelis were taken aback and forced to respond hastily. Within minutes the Egyptians expended 10,500 artillery shells on Israeli defensive positions on the fortified Bar Lev Line, 250 Arab combat aircraft attacked Israeli deep positions, and 8,000 commandos crossed the Suez, while Syrian tanks numbering well over a thousand pressed their attack in the Golan Heights.¹³ The Egyptians successfully and rapidly crossed the Suez Canal and pressed ten kilometers into the Sinai, consolidating their gains while defending their advanced positions. The initial attacks by the Egyptians were met fiercely by hasty Israeli counterattacks, in significant part because they perceived the attacks as a threat to Israel itself rather than an Arab attempt to regain lost territories.

While the Israelis had lost valuable time in not mobilizing reserves as the nation observed Yom Kippur, the holiest of Jewish religious days. Thus, the Israeli response was rushed and confused. As they responded, Israeli forces were met by intense and well-prepared Egyptian forces. In the Golan Heights, the Israelis at times were outnumbered by Syrian

⁹ Benjamin Franklin Cooling and Center for Air Force History (U.S.), eds., *Case Studies in the Achievement of Air Superiority*, Special Studies (Washington, D.C: Center for Air Force History, 1994), 588.

¹⁰ George W. Gawrych, *The 1973 Arab-Israeli War: The Albatross of Decisive Victory*, 27.

¹¹ George W. Gawrych, 26.

¹² George W. Gawrych, 27.

¹³ George W. Gawrych, 28.

armored forces at a ratio of 11:1. The Arabs learned to negate Israeli advantages and exploit their own numerical strength, and this made for a strong offensive force that had successfully seized the initiative through speed and surprise. Time was working for the Arabs.

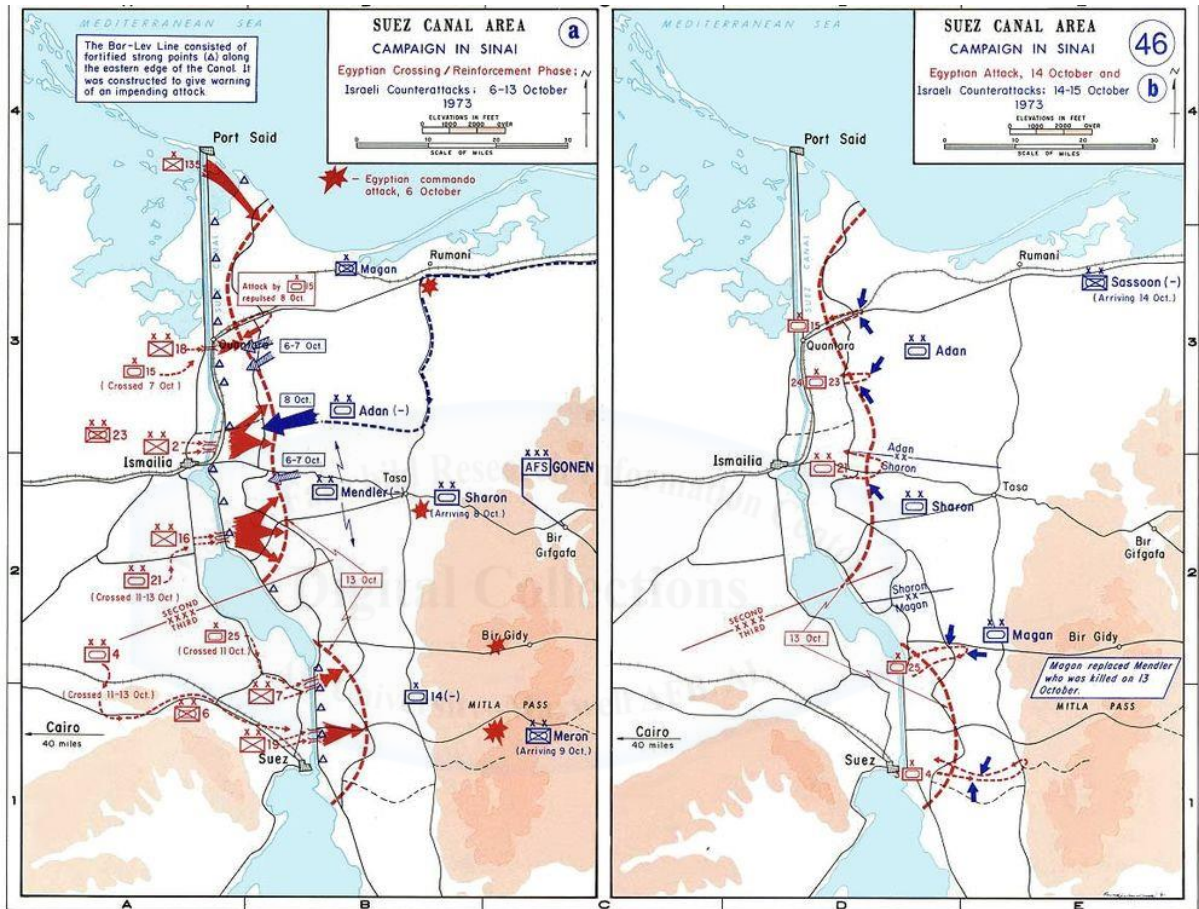


Figure 2: Sinai Canal Area: Campaign in Sinai 6-14 October 1973.

Source: Reprinted from West Point Atlas-Arab Israeli Wars. Accessed 31 May 2018. <https://www.westpoint.edu/history/sitepages/our%20atlases.aspx>

Arab Short Time Horizon

Anwar Sadat's positive political objective was to "upset the Israelis' security doctrine by initiating a military operation that would cause

heavy casualties to Israel to directly effect her national morale.”¹⁴ The objectives laid out to the Egyptian war minister on 5 October 1973 were threefold: “End the stalemate on the front and break the cease-fire; cause the enemy maximum losses; [and] liberate the occupied lands in stages according to the army’s capability and the development of events.”¹⁵ To accomplish this, the Egyptians would employ a strategic offensive coupled with a tactical defensive: they would cross the canal, push 5-10 miles into the Sinai, and then dig in.¹⁶ Simultaneously, the Syrians would push toward the Golan Heights and continue toward the Jordan River in a synchronized offensive. This dual action created two fronts for the Israelis, thus diffusing their forces. Once Sadat and Assad’s forces had secured their objectives, they anticipated a quick cease-fire in which Israel would be forced to relinquish the territories lost in the Six Day War. Arab Badr operations employed a short time horizon to guide their strategy, and was concentrated on the principles of mass, speed, and surprise.

Arab leaders realized the war could not be one of indefinite duration. They therefore needed to capitalize on their gains rapidly and persuade the U.S. or Soviets to broker a cease-fire. The Arab’s adoption of a short time horizon was reinforced by the idea that the time available was already short. The desire to move quickly, dig in and await resolution expressed a sense of this scarcity of time. While the Arabs had lost pride and prestige as a result of their defeat in the Six Day War, they maintained a desire for a short war to break the years of occupation with an expectation that Operation Badr would be over quickly. Arab leaders expected that the shock of the surprise offensives and early victories

¹⁴ Chaim Herzog, *The Arab-Israeli Wars: War and Peace in the Middle East from the 1948 War of Independence to the Present*, 315.

¹⁵ Daniel Asher, *The Egyptian Strategy for the Yom Kippur War: An Analysis* (Jefferson, N.C: McFarland, 2009), 11.

¹⁶ Martin van Creveld with Steven I. Canby and Kenneth S. Brower, *Air Power and Manuever Warfare* (Maxwell Air Force Base, Ala: Air University Press, 1994), 175.

would force the Israelis off-balance and defeat their perceived military invincibility, force the superpowers to intervene in the region on favorable terms to Egyptians and Syrians, and lead to a restoration of Arab prestige.¹⁷ For the two Arab states, the idea of quick victory was congruent with a short time horizon, and their time commitment was consistent with their positive political objectives. As author Abraham Rabinovich articulates, “Sadat wanted a short, sharp blow aimed not at recapturing all Sinai, but at dislodging the political process from the status quo in which it was mired.”¹⁸

The Egyptian and Syrian forces were outfitted with the latest Soviet war machines and were trained by Soviet advisors. The combined Arab military forces used against the Israelis in the Yom Kippur War were be “equivalent of the total forces of NATO in Europe” at that time.¹⁹ Learning from the failures of the Six Day War, the Egyptians and Syrians employed Soviet-style military doctrine, strengthening their military capability and capacity, which they now perceived to exceed those of their Israeli opponent.²⁰ The Arabs learned from the Six Day War and follow-on engagements that the Israelis were reliant on their armor and air forces.²¹ The Arabs thus sought to counter these specific advantages through the mass deployment of anti-tank weapons, creating a dense anti-aircraft defense, and by using speed and surprise to counter Israeli operational tempo.²² “At the same time, they noted [Israeli] weaknesses in extreme casualty aversion, inability to remain mobilized from more than

¹⁷ Asher, *The Egyptian Strategy for the Yom Kippur War*, 57.

¹⁸ Abraham Rabinovich, *The Yom Kippur War: The Epic Encounter That Transformed the Middle East*, Revised and updated paperback edition (New York: Schocken Books, 2017), 44.

¹⁹ Chaim Herzog, *The Arab-Israeli Wars: War and Peace in the Middle East from the 1948 War of Independence to the Present*, 230.

²⁰ Sadat encouraged his officers to study the Israeli military in depth to find out what gave the IDF their great advantages.

²¹ Kenneth M. Pollack, *Arabs at War: Military Effectiveness, 1948-1991*, Studies in War, Society, and the Military (Lincoln, Neb.: University of Nebraska Press, 2004), 100.

²² Chaim Herzog, *The Arab-Israeli Wars: War and Peace in the Middle East from the 1948 War of Independence to the Present*, 229.

a few weeks, and its overconfidence from the victory of the Six-Day War.”²³

The Arabs were also highly influenced by Soviet doctrine. While the Egyptians and Syrians both adopted significant pieces of Soviet doctrine, they never fully implemented it as prescribed. Taking parts and pieces that fit their particular needs in their environment and cultural context, the Arabs discarded the rest. However, they did retain the teachings of Marshal Tukhachevsky, as both armies used simultaneity and increased operational tempo.²⁴ Coupled with Soviet military principles of surprise, deception, and mass, the Arabs chose the most salient portions of Soviet doctrine which would enable the achievement of their objectives while adhering to their short time horizon.²⁵

The Syrians required Soviet technology and Soviet advisors to teach them how to use it. The Arab assault was enabled by a prewar build-up of large quantities of military hardware and by the support of their Soviet patrons. For instance, the Egyptians had created the densest surface-to-air missile umbrella in the world at the time, to include the SA-2, SA-3, the mobile and deadly radar-guided SA-6, and the highly-distributed SA-7 shoulder-launched infrared missile.²⁶ Additionally, the Syrians had amassed one of the largest armored inventories outside of the Soviet Union or the United States, along with highly-effective anti-tank weapons such as the Sagger missile, which would wreak havoc on Israeli armor.²⁷ However, the Arabs would find out that their intense and rapid tempo of operations would hasten their contact with the Israelis who sought to match their magnitude and speed, and ultimately burn through their armament so fast that they were reliant on the Soviet

²³ Pollack, *Arabs at War*, 100.

²⁴ Asher, *The Egyptian Strategy for the Yom Kippur War*, 75.

²⁵ Asher, 202.

²⁶ Nordeen and Nicolle, *Phoenix over the Nile*, 271–72.

²⁷ Martin Van Creveld, *Military Lessons of the Yom Kippur War: Historical Perspectives*, *The Washington Papers*, v. 3, no. 24 (Beverly Hills: Sage Publications, 1975), 28.

Union for rapid resupply. Thus, the promise and prospect of Soviet resupply gave the Arabs reassurance that their capacity to continue fighting in a such a rapid and ferocious manner could be sustained at the same pace as that at the outset of the war. Thus, both Arab armies were heavily influenced to execute war within a short time horizon based on blended Soviet-Arab doctrine, possession of a large and highly capable modern military force, and a seemingly endless Soviet capacity to resupply their forces.

Israeli Short Time Horizon

After realizing the goals of the Arabs were not to eradicate Israel but to regain lost territories, the Israelis sought to counterattack and destroy any and all military advantages that could be afforded their opponents through a short time horizon. Israel planned to absorb the first blow before launching a decisive and rapid counterattack.²⁸ In this endeavor, the Israelis sought to dispense initial Arab gains and counterattack to inflict maximum damage. The result of Israel's reaction would be to destroy as much of the Arab force and their military infrastructure as possible, in order to leave Israel with a marked advantage for a number of years.²⁹ "Thus Israel's aims were to prevent the Arabs from gaining any territorial advantage in the initial attack; to gain and maintain the upper hand in the air by destroying the Arab missile system; to destroy Arab forces; and to capture territory for use as a political bargaining factor."³⁰

The Israelis always perceived their time available to be limited either by their doctrine, military capacity, or fears of rapid Arab

²⁸ Martin van Creveld with Steven I. Canby and Kenneth S. Brower, 173.

²⁹ Chaim Herzog, *The Arab-Israeli Wars: War and Peace in the Middle East from the 1948 War of Independence to the Present*, 314.

³⁰ Chaim Herzog, 316.

conquest. Caught unawares by the surprise assault of Operation Badr, the Israelis had lost a large amount of time because they had not fully mobilized their reserves. A full mobilization of IDF forces was planned to take at least 72 hours. Lacking the critical mobilization and facing large territorial losses in the early days of October, the Israelis perceived the clock counting down toward their ultimate destruction. By the 9 October, Defense Minister Moshe Dayan felt the “third temple,” an internal codename for Israel, was threatened, and that the time remaining until the Arabs destroyed the Israeli state was quickly running out. Thus, the Israelis were highly committed to their time horizon and desired a quick end to the attacks which they perceived threatened Israel’s existence. The Israelis, while having a cultural view of a short time orientation, had a respect for the past as many Israelis of the time had lived through or had relatives who had been in the Holocaust of World War II. Therefore, to prevent the loss of Israel and their destruction as a people, the Israelis were committed to use whatever means were at their disposal to end the offensive actions of the Arabs. Israeli Prime Minister Golda Meir addressed the world in a press briefing and stated, “This people small as it is, surrounded as it is by enemies has decided to live. And if we have to pay the price for living, then we have to pay it, this is not a people that can give in.” This perception of national extremis and time pressure influenced the Israeli Defense Force’s choice of a short time horizon once the Israelis had enough strength to counter-attack the Syrians in the Golan and had traded space for time in the Sinai.

The IDF of 1973 based their military doctrine on combined arms and maneuver warfare. “The principles of maneuver warfare coincide with the Israeli’s need to fight short, clean wars, particularly in the sense that Arab armies can be collapsed by using strategy and tempo rather

than direct and bloody attritional assault.”³¹ Any war that is not short and relatively low in material and personnel casualties was not acceptable.³² In essence, the Israelis were inclined to fight short wars because they lacked capacity to fight protracted wars. This lack of capacity stemmed from of a small population, fixed force composition, limited economy and small land mass. The disparity in the region was that of extremes. The population of Egypt in 1973 was approximately 37 million people, the Syrians population was around 7 million, while Israel population was less than 4 million.³³ The Israelis thus had an absolute obsession with minimizing casualties. Additionally, Israel relied heavily on reserves, but faced severe economic burdens when keeping its reserves mobilized.³⁴ “Full mobilization of its relatively large force structure reduces the daily generation of domestic GNP by about one quarter. Such mobilization also increases daily defense expenditures by at least a factor of three, escalating daily defense expenditures rapidly to the equivalent of about 50 percent of the GNP. The impact of any sustained period of full mobilization would be economically devastating.”³⁵ However, significant amounts of U.S. financial aid enabled Israel, and like the Arabs, they continued fighting at a fast pace patron support. Still, if materiel could be replaced by the U.S., Israeli soldiers could not. Thus, the Israelis planned for and needed a short time horizon to accomplish their goals.

³¹ Martin van Creveld with Steven I. Canby and Kenneth S. Brower, *Air Power and Maneuver Warfare*, 156.

³² Martin van Creveld with Steven L. Canby and Kenneth S. Brower, *Air Power and Maneuver Warfare*, 156.

³³ “World Population Review,” accessed May 19, 2018, <http://worldpopulationreview.com/countries/egypt-population/>.

³⁴ Pollack, *Arabs at War*, 91.

³⁵ Martin van Creveld with Steven I. Canby and Kenneth S. Brower, *Air Power and Maneuver Warfare*, 155.

Time Horizons in Conflict: Short versus Short

The short time horizons of both opponents created a highly escalatory and intensely fast tempo of war, which would take the world to the brink of nuclear conflict between superpowers. While the war was “brief in duration, the October War was extremely costly in terms of both men and equipment. The war consumed not only supplies, but men; the Israelis lost as a percentage of population, over 30 times those of American loss rates in World War II, and the Arab losses were twice that.³⁶ In the span of 19 days of fighting, total casualties amounted to 88,331, and over twenty-one hundred tanks and nearly five hundred aircraft were lost.”³⁷ Historian Chaim Herzog writes, “the expenditure of ammunition was inordinately high, the losses of aircraft were serious, and the figures of tanks destroyed were alarming.”³⁸ Rarely did a short time horizon opponent engage another short time horizon opponent, as the very nature of this competition can swiftly lead to escalation. For this reason, the Yom Kippur War is an ideal case study to test this thesis’ arguments.

The Arab surprise attack on 6 October took the Israelis by surprise.³⁹ In the case of Egypt’s Suez crossing, within the first 55 minutes of execution, massive aerial, artillery, and missile attacks rained down upon the Israelis. The overwhelming intensity and speed at which the Egyptians moved across the Suez was impressive by contemporary military standards. Meanwhile, the Syrians in the Golan had massed a force of 1,500 tanks against the Israelis.⁴⁰

³⁶ Thompson, *The Lifeblood of War*, 221.

³⁷ Maghroori and Gorman, *The Yom Kippur War*, 11.

³⁸ Chaim Herzog, *The Arab-Israeli Wars: War and Peace in the Middle East from the 1948 War of Independence to the Present*, 322.

³⁹ Israeli intelligence assessed that Egyptian forces could not mount a large-scale attack until at least 1975.

⁴⁰ Daniel Asher, ed., *Inside Israel’s Northern Command: The Yom Kippur War on the Syrian Border*, First North American edition, Foreign Military Studies (Lexington, Kentucky: University Press of Kentucky, 2016), 45.

The Israeli reaction was initially hasty. Confusion coupled with the surprise of the attacks led the Israelis to conduct a poorly coordinated defense. The simultaneous and rapid Arab attacks proved successful, and the Israelis were put back on their heels for the first time in the state's short military history. As the Israelis had made a conscious decision to not fully mobilize or conduct preemptive attacks, time was now of the essence. In the first day alone, the IDF lost approximately 500 tanks and 40 aircraft.⁴¹ A stranger to losses of this magnitude, Israel leaders started to feel the stress of time pressure as they were quickly losing the mainstays of their military forces and doctrine: aircraft and armor. As the Arabs continued to make rapid gains into October 8 and 9, and the Israelis continued to burn through personnel, ammunition, war machines, and supplies.

Early and intense set-piece battles shaped the conflict. The combat consumed war stocks so quickly that neither side was prepared organically to replace its losses while continuing to fight.⁴² They therefore, sought armaments from their respective patron states, drawing in the nuclear-armed superpowers.⁴³ U.S. President Richard Nixon was resolute in his decision to support Israel in the face of Arab advances. "The Israelis must not be allowed to lose," he said and acted accordingly.⁴⁴ The President authorized a \$550 million-dollar aid package which assured that all Israeli aircraft and tanks losses would be replaced, while offering the latest U.S. aircraft, tanks, anti-tank weapons,

⁴¹ Joseph S. Doyle, "The Yom Kippur War and the Shaping of the United States Air Force" (School of Advanced Air and Space Studies, 2016), 13.

⁴² Julian Thompson notes "Shaken by early Arab success, and high ammunition expenditure on the first two days of the war, the Israeli government came to the conclusion that another week of consumption at that rate and Israel, shorn of supplies, would be overrun. On 12 October the Israeli Ambassador presented a note the United States Government, part of which read: 'the future of the State of Israel is at stake.' On 13 October, President Nixon decided to provide the Israeli with almost everything they wanted, even at the cost of digging into American war reserves."

⁴³ Thompson, *The Lifeblood of War*, 231.

⁴⁴ Kissinger, *Years of Upheaval*, 495.

and electronic counter-measures.⁴⁵ Thus, the United States started Operation NICKEL GRASS, which would “by the end of October 1973 fly in 22,395 tons of supplies in USAF C-5 and C-141 aircraft and 5,500 tons by Israeli El Al airlines.”⁴⁶ This resupply of vital military equipment was time-critical as the Israelis thought that the very existence of their country was at stake, and with limited capacity, the need for U.S. supplies and equipment replacement was grave.

Table 5: Losses in the Arab Israeli Wars: 1948-1973.

A. Overall Trend: 1948–1973 Wars								
	1948		1956		1967		1973	
	Arab	Israel	Arab ¹	Israel	Arab	Israel	Arab	Israel
<i>Casualties</i> ²								
Killed	4,800	4,500	1,000	189– 210	4,296	750– 983	8,528	2,510– 2,838
Wounded	25,000	15,000	4,000	899	6,121	4,517	19,549	7,500– 8,800
Total	40,000	21,000	5,000	1,088– 1,109	10,417	5,267– 5,500	28,077	11,310– 11,638
<i>Equipment Losses</i>								
<i>Main Battle Tanks</i> ³								
	—	—	30	40	965– 1,000	200– 394	1,850	400– 850
Aircraft	—	—	215– 390	15– 20	444– 500	40	392– 468	102– 103
Combat Vessels	—	—	2	0	?	0	19	0
B. Land, Air, and Naval Losses: 1973 War								
		Israel	Total Arab	Egypt	Syria	Jordan	Iraq	Other Arab
<i>Casualties</i>								
Killed		2,838	8,528	5,000	3,100– 3,500	28	218– 260	100
Wounded		8,800	19,549	12,000	6,000	49	600	300
Prisoners/Missing		508	8,551	8,031	370– 500	—	20	?
<i>Equipment Losses</i>								
Main Battle Tanks ⁴		840	2,554	1,100	1,200	54	100– 200	?
Other Armor		400	850+	450	400	—	?	?
Artillery Weapons		?	550+	300	250	—	?	?
SAM Batteries		—	47	44	3	—	—	?
Aircraft		103	392	223	118	—	21	30
Helicopters		6	55	42	13	—	?	?
Naval Vessels		1	15	10	5	—	—	—

¹Includes only Egyptian casualties in fighting with Israel. Equipment losses include total Egyptian losses, including those to France and the United Kingdom.

²Prisoner of war and missing data are too unreliable to be included.

³Lower end of range often reflects losses that could not be returned to combat by the end of war. Higher end shows “kills” that put tank temporarily out of combat.

⁴Lower end of range often reflects losses that could not be returned to combat by the end of war. Higher end shows “kills” that put tank temporarily out of combat.

SOURCES: Estimates differ widely from source to source. The figures shown are adapted from Trevor Dupuy, *Elusive Victory* (New York: Harper and Row, 1978); Chaim Herzog, *The Arab-Israeli Wars* (New York: Random House, 1982); and from various editions of the *Born in Battle Series*, Tel Aviv, Eshel Drammit.

Source: Reprinted from Anthony H. Cordesman and Abraham R. Wagner, *The Lessons of Modern War* (Boulder, Colo. : London: Westview Press ; Mansell Pub, 1990), 18.

⁴⁵ Kissinger, 496.

⁴⁶ Maghroori and Gorman, *The Yom Kippur War*, 29.

Likewise, the Soviets continued to supply the Arabs with arms and equipment. Arab losses were staggering; in one tank battle on the 17th of October, the Arabs lost 250 main battle tanks.⁴⁷ By the end of the war, the Arabs would lose a combined total of 2,554 main battle tanks.⁴⁸ But in October 1973, the Soviet Union and its leader, Leonid Brezhnev, was not prepared to accept an Arab defeat.⁴⁹ Another Israeli victory would damage Soviet position and prestige not only in the Middle East but also worldwide.⁵⁰ According to General Saad Al Shazly, then Egyptian chief of staff, on 9 October the Soviet Union began supplying Egypt and Syria by air and sea with Soviet aircraft flying over 900 missions during the airlift.⁵¹ Without U.S. and Soviet assistance, the belligerents would be without the capacity to continue fighting in the method to which they had grown accustomed to.

Additionally, Israel may have made preparations to use its alleged nuclear stockpile for a demonstration against Egypt and Syria. A 12 April 1976 *Time* magazine article “*How Israel Got the Bomb*” speculated that the Israelis, fearing the Syrians would overrun the Golan Heights and descend into their population centers, had readied thirteen nuclear devices and loaded them onto awaiting F-4 Phantoms, Kfir Fighters, as and Jericho missiles.⁵² International relations theorist Vipin Narang later wrote that, the “Israeli leaders sent specific nuclear signals that would only be detected by the U.S –not Syria—to catalyze the American airlift of

⁴⁷ Thompson, *The Lifeblood of War*, 227.

⁴⁸ Anthony H. Cordesman and Abraham R. Wagner, *The Lessons of Modern War* (Boulder, Colo. : London: Westview Press ; Mansell Pub, 1990), 16.

⁴⁹ Maghoori and Gorman note an Egyptian and Syrian defeat would have seriously weakened the Soviet position in the region.

⁵⁰ Maghoori and Gorman, *The Yom Kippur War*, 33.

⁵¹ Saad Shazly, *The Crossing of the Suez* (San Francisco: American Mideast Research, 2003), 275.

⁵² Edgar O’Ballance, *No Victor, No Vanquished: The Yom Kippur War* (San Rafael, Calif: Presidio Press, 1978), 175.

conventional supplies.”⁵³ However, other authors have noted that Soviet Cosmos satellites would also be able to detect the signals as well, and as a result of such notice, the Soviets deployed nuclear-armed SCUD surface-to-surface missiles by sealift off the coast of Egypt.⁵⁴

While these highly escalatory claims have been mired in either classification issues or hearsay, the U.S. Center for Naval Analysis completed a report concluded it was likely that “Israel did take some steps associated with the readying of its nuclear weapons and/or nuclear weapons delivery forces in the very early stages of the Yom Kippur War, but that these steps were defensive or precautionary in nature and were not designed to send a signal to the United States, the Arabs, or anyone else; and that American leaders did not believe the situation, even in the dark hours of October 7, had reached the depths” of nuclear weapon usage by Israel.⁵⁵ In any event, the idea that Israel had a sheathed sword at the ready just in case cannot be taken lightly. The time pressure imposed on Israeli leaders by the shock of the Arab assault, the intensity of combat, and the potential fall of the “third temple” is a characteristic risk-acceptant behavior that is a result of a dramatic decrease in the perceived amount of remaining time before a belligerent faced defeat or national extinction.

⁵³ Vipin Narang, *Nuclear Strategy in the Modern Era: Regional Powers and International Conflict*, Princeton Studies in International History and Politics (Princeton: Princeton University Press, 2014), 180.

⁵⁴ O’Ballance, *No Victor, No Vanquished*, 175.

⁵⁵ Elbridge Colby, Avner Cohen, William McCants, and Bradley Morris, “The Israeli ‘Nuclear Alert’ of 1973: Deterrence and Signaling in Crisis,” DRM-2013-U-004480 (Center for Naval Analysis, April 2013), 2.

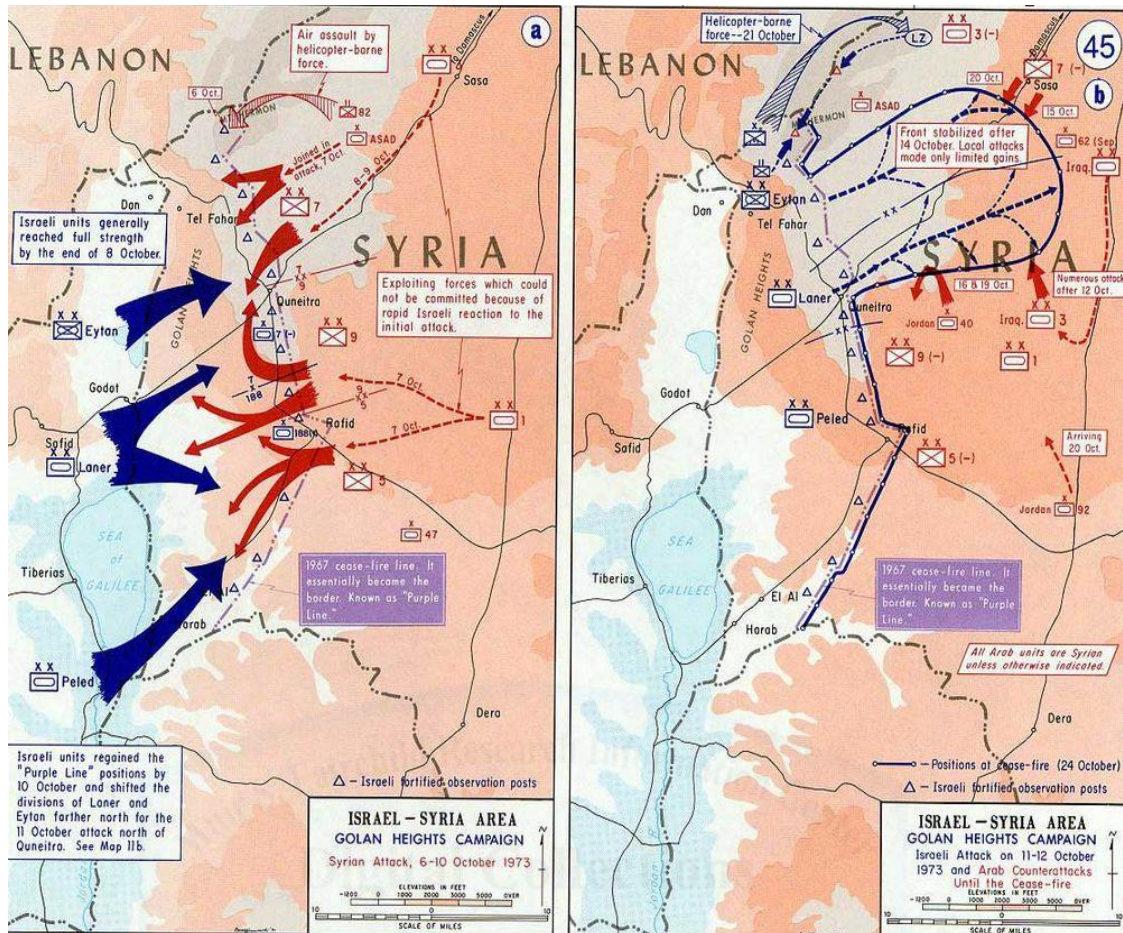


Figure 3: Israel – Syria Area: Golan Heights 1973.

Source: Reprinted from West Point Atlas-Arab Israeli Wars. Accessed 31 May 2018. <https://www.westpoint.edu/history/sitespages/our%20atlases.aspx>

As a result of U.S. Operation NICKEL GRASS and the full mobilization of the IDF, the Israelis halted the Syrian and Egyptian forces, and the IDF prepared for a massive counterattack to bring the war to a quick end. The IDF chose to give up space for time in the Sinai and to prioritize the operations in the Golan Heights as it was closest to the heartland of Israel. The resupplied and mobilized Israeli force routed the weakened Syrians in the Golan. Egyptian Field Marshal El-Gamasy would recount the situation after war: “Frankly, by 10 October, Israel had the advantage in the situation. Israel had sent its air force against economic targets in Syria on 9 October, bombed the capital, Damascus, on 10 October, and bombed military targets on 11 October. At this point

a representative from the Syrian command had arrived in Cairo to ask for intensified operations on the Sinai front to ease pressure on the Golan. The military situation put political pressure on President Sadat and military pressure on General Ahmad Isma'il, who commanded the two fronts. Therefore, in the early hours of 12 October, President Sadat ordered General Isma'il to resume the offensive eastward on the Egyptian front to ease the pressure on the Syrians.⁵⁶

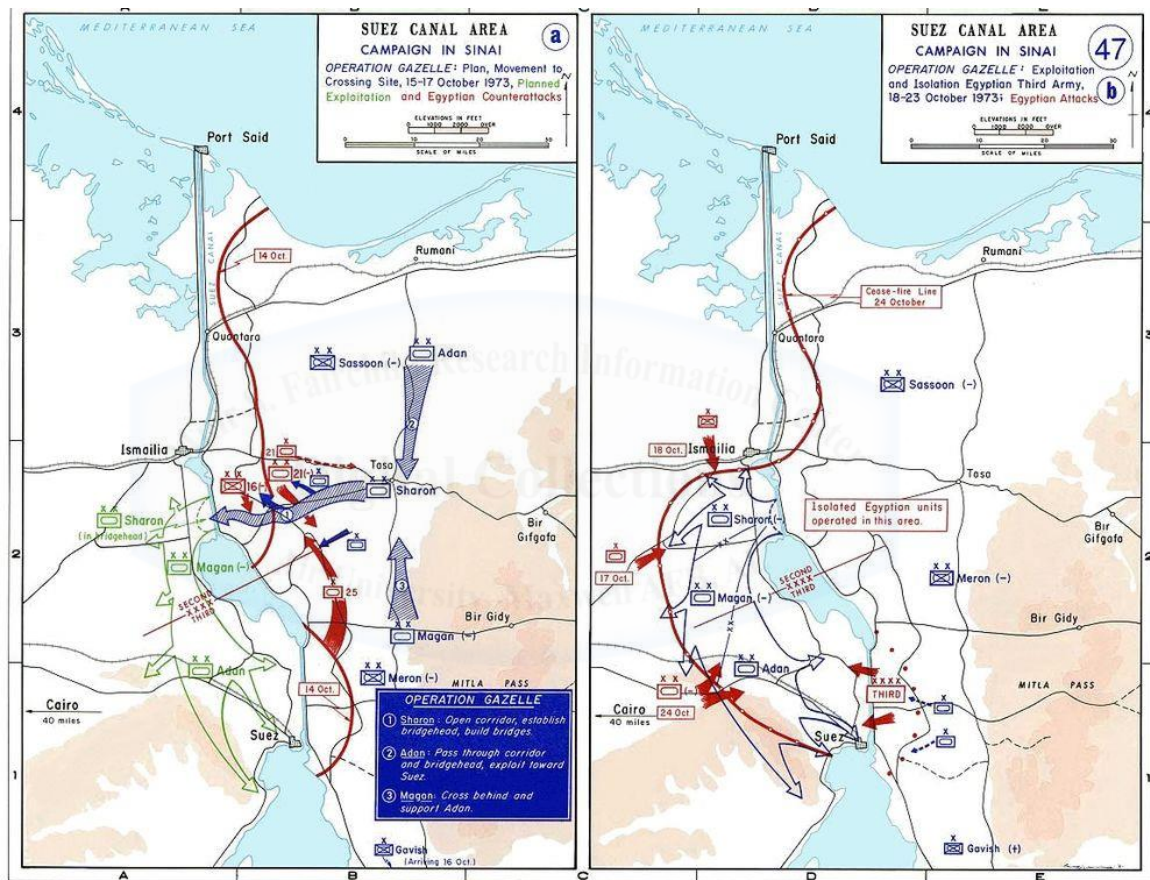


Figure 4: Israel – Syria Area: Golan Heights 1973.

Source: Reprinted from West Point Atlas-Arab Israeli Wars. Accessed 31 May 2018. <https://www.westpoint.edu/history/sitepages/our%20atlases.aspx>

Sadat, in the Sinai, was now under the stress not only of his own short time horizon, but also from his ally, the Syrians. The Syrians were

⁵⁶ Muḥammad ‘Abd al-Ghanī Jamasī, *The October War: Memoirs of Field Marshal El-Gamasy of Egypt* (Cairo, Egypt: American University in Cairo Press, 1993), 265.

now running out of time as their own capital was threatened by Israeli artillery and air strikes, while the resurgent IDF's armor sat 25 miles outside of Damascus. If Syria was to stay in the war, it needed relief quickly. Sadat's strategy was to gain a foothold on the eastern bank of the Suez, and continue to press toward the Milta and Giddi mountain-passes. "There were however, serious risks involved in advancing the offensive. Egypt's capabilities were still inferior to Israel's, especially in air power and offensive maneuver; as such, aggressive exploitation of the early successes might have risked losing everything they had won on those days."⁵⁷ Without the massed-protective cover of the Egyptian missile batteries (the only transportable batteries being the SA-6 and SA-7), the Egyptian ground force would be subject to the combined arms of the Israelis. But time pressure can lead to risk-acceptant behavior and Sadat decided to plunge ahead.

President Sadat's decision to return to the offensive met with fierce disapproval from General Shazli, and his outspoken disagreement would cost him his position. Commenting on President Sadat's decision to resume the attack, Shazli recalled: "Even today, six years after the war, I haven't the foggiest notion why the attack was made...It was pure folly."⁵⁸ In reality, the Egyptians took on a significant amount of risk to aid their Syrian ally. An Egyptian plan to remain behind their defenses and wait for an expected cease-fire would have been prudent, but in light of a cease-fire not materializing quickly, and facing the need to support his primary ally, Sadat felt the time pressure to take a risky decision. The choice cost Sadat immense stores of material and many scores of men. It led to the Israeli encirclement of the Egyptian Third Army. In the largest

⁵⁷ Risa Brooks, *Shaping Strategy: The Civil-Military Politics of Strategic Assessment* (Princeton, N.J: Princeton University Press, 2008), 134.

⁵⁸ Jamasī, *The October War*, 262.

tank battle since World War II, the Israelis scored an armor kill ratio of 256:6. In the end, Sadat's decision cost Egypt the war.⁵⁹

On 22 October, the U.S. brokered a ceasefire though fighting sputtered until 25 October. Eventually, Sadat appealed to the superpowers to intervene and assist in ceasefire enforcement.⁶⁰ Soviet Leader Leonid Brezhnev then sent a letter to Kissinger to propose a joint-superpower intervention. The letter, which has become highly contentious in the years following the war, stated: "Let us together...urgently dispatch the Soviet and American contingents to Egypt...I will say it straight that if you find it impossible to act together with us in this manner, we should be faced with the necessity urgently to consider the question of taking appropriate steps unilaterally."⁶¹ Kissinger viewed unilateral Joint U.S.-Soviet intervention as a "time bomb that could easily lead to a superpower conflict."⁶² Kissinger reasoned that deployed American forces would become the object of terrorist attacks, increase tension in the region, and become mired in ongoing Mideast conflict. Yet, Kissinger also felt that if the Soviets intervened alone, they would become the dominant military force in the region, diminishing the effects of détente, and spreading Soviet influence into the region. This was a reality the U.S. could not accept.⁶³

In reaction, Kissinger advised Nixon that "the United States might have to alert its military forces as one way of deterring any unilateral Soviet move."⁶⁴ Nixon agreed, and on 24 October at 11:41 P.M., as a result, the U.S. went to Defense Condition III, and put nuclear forces on alert.⁶⁵ The U.S. even went so far as to return B-52s from their positions

⁵⁹ O'Ballance, *No Victor, No Vanquished*, 159.; Martin van Creveld with Steven L. Canby and Kenneth S. Brower, *Air Power and Maneuver Warfare*, 176; O'Ballance, 159.

⁶⁰ Maghroori and Gorman, *The Yom Kippur War*, 41.

⁶¹ Marvin Kalb and Bernard L. Kalb, *Kissinger* (Boston: Little, Brown and Company, 1974), 451.

⁶² Maghroori and Gorman, *The Yom Kippur War*, 42-43.

⁶³ Maghroori and Gorman, 42.

⁶⁴ Marvin Kalb and Bernard L. Kalb, *Kissinger*, 490.

⁶⁵ Kissinger, *Years of Upheaval*, 588.

in Guam, where they had been tasked to provide a deterrent posture against North Vietnam.⁶⁶ Still, the Soviets were determined to act unilaterally by sending eight An-22 transport aircraft to Egypt on the evening of 25 October.⁶⁷ The U.S. estimated that the Soviets could move 5,000 soldiers a day into Egypt.⁶⁸ When the Soviets failed to react quickly to the U.S. posture, the U.S. (on 25 October 12:20 and 12:25 A.M. respectively) put the 82d Airborne Division on alert, and deployed three aircraft carriers to the Mediterranean.⁶⁹ Similar to the short time horizons of the Arabs and the Israelis, the U.S. and Soviets were now involved in a time compressed situation in which time pressure exerted a significant tendency toward risky decisions. According to political scientists Ray Maghooori and Stephen Gorman, “The decision to place American nuclear forces on alert contained all of the characteristics of a crisis decision. Specifically, options were apparently perceived as extremely narrow, the stakes were considered high, the timeframe of the decision-making process short, the available concrete data scant, and the number of participants very small.”⁷⁰

The United States and the Soviet Union were now locked in a game of nuclear brinksmanship as the result of actions in the deserts of the Middle East. Kissinger, in a press conference on 25 October, told the world:

The United States and the Soviet Union are, of course, ideological and, to some extent, political adversaries. But the United States and the Soviet Union also have a very special responsibility. We possess—each of us—nuclear arsenals capable of annihilating humanity. We—both of us—have a special duty to see to it that confrontations are kept within bounds that do not threaten civilized life.” However, “there are limits beyond which we cannot go. I [Kissinger] stated that we will oppose the attempt by any country to achieve a

⁶⁶ Kissinger, 591.

⁶⁷ Kissinger, 589.

⁶⁸ Kissinger, 589.

⁶⁹ Kissinger, 589.

⁷⁰ Maghroori and Gorman, *The Yom Kippur War*, 49.

position of predominance, either globally or regionally; that we would resist any attempt to exploit a policy of détente to weaken our alliances; and that we would react if the relaxations of tensions were used as a cover to exacerbate conflicts in international trouble spots. It is easy to start confrontations, but in this age, we have to know where we will be at the end and not only what pose to strike at the beginning.⁷¹

With nuclear war rapping on the door, the Soviets backed down. Brezhnev downplayed the alert and said the U.S. response was an overreaction. Soviet forces were sent back to home garrisons and Soviet naval ships returned to port. Brezhnev did send representatives to observe the cease-fire, and the U.S. returned to Defense Condition IV and continued to mediate the aftermath of the war with both the Egyptian and the Israelis. In the end, diplomacy prevented what could have become a nuclear war between the superpowers. But the fact of the matter remains; two belligerents bent on quick victories had raced up the escalation ladder to only find death, destruction, and the specter of Armageddon facing them. Edgar O'Ballance's book title, "*No Victor, No Vanquished*," would adequately describe the understanding that in 1973, there were no clear delineations.

Conclusion

The unintended consequences of war between two short time horizon opponents, using rapid tempo operations with high levels of materiel and human losses, thus caused a war to spiral beyond their means to terminate it successfully without superpower intervention. The fast-paced and intense combat of the Yom Kippur War showcased the results of two opponents determined on winning, with both sprinting toward the finish line, with each trying to outdo the other. Gawrych argues, "The Israelis expected that their superior armed forces would win

⁷¹ Kissinger, *Years of Upheaval*, 594.

the next war quickly, decisively, and with relatively few casualties, and the Israeli military felt compelled (perhaps unconsciously) to plan for a repeat performance.”⁷² The Arabs, in an emulation of Israeli doctrine, addressed the strengths of the Israelis and found effective counters that required speed and surprise. Once balanced with a hybrid of Soviet and Arab military doctrine, the pieces were set and the clash of two short time horizons drove towards a highly escalatory and rapid war.

While the notion of a quick war pervades modern military strategies and doctrine, the character of a conflict when two enemies employ these strategies can be extremely unpredictable and explosive. In these instances, decision-makers are rushed to make calls in times where every second is critical; every passing minute in a crisis can lead to hasty decisions and high-risk acceptance. When developing a strategy that finds itself meeting another short time horizon, the temptation to sprint toward the finish line can create an unintended increase in the intensity and speed of the race. that one may not be prepared for. As Gawrych concludes “With this example in mind, political and military leaders...should take heed of the fourth Arab-Israeli war...lest the legacy form a tacit promise to...deliver a quick, decisive, and relatively bloodless victory. A clever adversary blessed with luck, can turn this pledge into a rude awakening as happened to Israel in October 1973.”⁷³

⁷² George W. Gawrych, *The 1973 Arab-Israeli War: The Albatross of Decisive Victory*, 82.

⁷³ George W. Gawrych, 82.

Chapter 6

Long versus Long Time Horizons: World War II Pacific Campaign 1944-1945

Wearing down the enemy in a conflict means using the duration of war to bring about a gradual exhaustion of his physical and moral resistance.

-Carl von Clausewitz

Overview

The war in the Pacific between the U.S. and Japan lasted from 7 December 1941 until 2 September 1945, with both belligerents adopting long time horizons. The enormous expanse of space which defined the theater and their respective political objectives destined the war to be one of long duration. In 1941, the Japanese initially sought a quick and limited war, but the war turned toward a long war of attrition that bordered on a theoretical total war. Following the Japanese attack on Pearl Harbor, Admiral Isoroku Yamamoto lamented, "I fear we have awakened a sleeping giant and filled him with a terrible resolve."¹ This comment proved visionary, as it captured the United States' commitment to avenge its losses at any price, in blood, treasure, and time.

A Japanese intelligence estimate of what a war with the U.S. would look like, written in October 1940, stated that, "it is not Japan but the United States which has the freedom to choose either a quick battle or a long-endurance war. Indeed, the charm of Japan's strategic position is that she is strategically passive from beginning to end. Therefore, to make good use of her strategic position, it is a proper measure for Japan

¹ Richard Halloran, "50 Years Later, the Nation Remembers," *The New York Times*, October 20, 1991, XX edition, 23.

to decide upon her policy after knowing what the United States is going to do.”² America’s choice to declare war on Japan would necessitate a long time horizon and in turn, the Japanese would follow suit. Hence, the U.S. and Japan would lock horns in a war progressively unconstrained by time or intensity.

This thesis argues that the Imperial Japanese government, as a defender with a long time horizon, approached its application of a long time horizon and time pressure differently than did the U.S., even though both had long time horizons. The Japanese chose to dig in, and became more resolved in commitment and defense. As an attacker with a long time horizon, the U.S. chose to fight a war of modulating intensity with a firm dedication to the object, while opportunistically seeking shortcuts to accelerate the end of war. Unlike a short time horizon, which would foster more risk, U.S. decision-makers chose a more calculated and risk-adverse strategy as a result of this commitment to a long time horizon. The Pacific War is a benchmark case study of two opponents, each with long time horizons, willing to slog out a long war of exhaustion to achieve their aims.

The Conflict

The strategy of “Germany first” focused the U.S. on defeating Nazi Germany first and then shifting the weight of effort to Japan. However, despite the focus on Germany, “the war against Japan was kept going during that crucial period at almost the same level of intensity as the war against Germany.”³ Following the defeat of Germany in May of 1945, the U.S. could now shift all its war-making efforts from Europe to the Pacific.

² Kinoaki Matsuo, *How Japan Plans to Win* (Boston: Little, Brown and Company, 1942), 198.

³ Robert W. Coakley and Richard M. Leighton, *The War Department: Global Logistics and Strategy 1943-1945*, United States Army in World War II (Washington, D.C.: Center of Military History United States Army, 1989), 593.

Thus, the American plan to defeat Japan stated, “operations should be framed to force the defeat of Japan as soon as possible after the defeat of Germany . . . on the basis of accomplishing this within twelve months of that event.” However, historians Robert Coakley and Richard Leighton claim that “no specific plan for the defeat of Japan within one year after the surrender of Germany was ever approved.”⁴

This thesis does not seek to reacquaint the reader with every battle of the war in the Pacific. The author’s intention is to highlight the most notable operations which occurred in 1944-1945, specifically U.S. Operations Starvation, Iceberg, and Downfall; and Japanese strategies Sho-Go and Ketsu-Go, which were meant to counter them. Historian Robert Pape argues the, “rapid and unexpected success of Japan in seizing the Philippine and other Pacific islands during 1942 unhinged Plan Orange, the American prewar plan for offensive operations against Japan, and temporarily force the United States on to the defensive. It was not until the strategic tide turned in 1942 that American leaders became confident enough of the final outcome to begin considering how to force Japan to surrender.”⁵ By 1945 American plans to end the war hinged on two main strategies, “blockade and bombardment,” and an invasion of the Japanese Islands. Japan would meet these strategies through defensive strategies of attrition and exhaustion in defense of their homeland and territorial gains.

Operation Starvation commenced in March 1945 and contributed to the strategy of blockade and bombardment by choking the import of food and raw materials into Japan through nighttime mining of major shipping ports by B-29 bombers and a blockade on the Japanese home

⁴ Robert W. Coakley and Richard M. Leighton, 397.

⁵ Robert Anthony Pape, *Bombing to Win: Air Power and Coercion in War*, Cornell Studies in Security Affairs (Ithaca, N.Y: Cornell University Press, 1996), 90.

islands through submarine and surface warfare.⁶ While the campaigns of blockade and bombardment inflicted a heavy price on the Japanese, they were not swift in their achievements, and challenged by a resolute enemy, they most certainly would take longer than more direct means. As Pape argues, “the economic effects of the blockade were devastating, although they did not materialize immediately because Japan had stockpiled large quantities of raw material prior to the war.”⁷ Meanwhile American advances through in the Central Pacific by island-hopping continued to provide airfields to Army Air Forces units drawing ever-closer to Japan, from there General Curtis E. LeMay, could bombard Japanese cities and industrial areas with incendiary attacks.

Starting with the fire raid against Tokyo on 9 March 1945, the American strategic bombing effort shifted from an interdiction strategy to a Douhet strategy meant to inflict maximum damage on population centers.⁸ Pape’s analysis reveals the incendiary attacks on 9 March 1945 against Tokyo were the most “devastating air attack in history, exceeding even the atomic attacks on Hiroshima and Nagasaki.”⁹ Yet, despite the wildly-destructive aerial attacks, which continued until the end of the war, they alone did not end the war. The U.S. would need other options available to use in conjunction to end the war. One of those options was the invasion of the Island of Okinawa.

Operation Iceberg started the land invasion of the Japanese home islands with the assault on Okinawa. It was to be followed by Operation Downfall, which consisted of Operations Olympic and Coronet. Olympic would be the invasion of Kyushu and Coronet, the invasion of Honshu, the main island of Japan. While Operation Downfall did not take place,

⁶ R. Cargill Hall and Air Force History and Museums Program (U.S.), *Case Studies in Strategic Bombardment* (Washington, D.C.: Air Force History and Museums Program, 1998), 344.

⁷ Pape, *Bombing to Win*, 100.

⁸ Pape, 103.

⁹ Pape, 103.

Operation Iceberg did (fig 5). On 1 April 1945, American forces invaded Okinawa and encounter fierce resistance. The losses were staggering for both opponents, and proved to the Americans that the Japanese appeared to have no intention of surrendering.

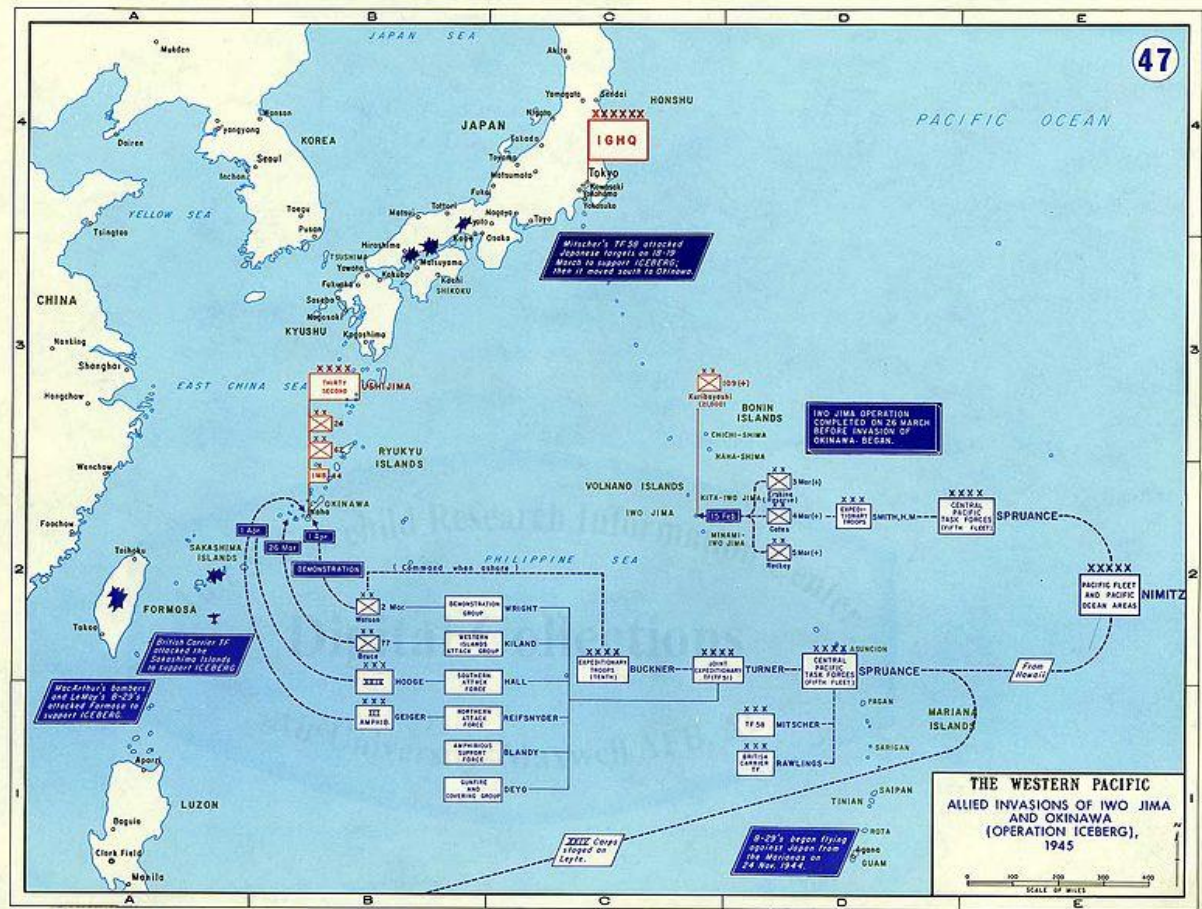


Figure 5: Allied Invasions of Iwo Jima and Okinawa (Operation Iceberg 1945).

Source: Reprinted from West Point Atlas-World War II Asia-Pacific. Accessed 31 May 2018. <https://www.westpoint.edu/history/sitepages/our%20atlases.aspx>

American casualties from Iceberg numbered 12,520 killed or missing and 36,613 wounded--the costliest battle in terms of combat casualties of the entire Pacific War.¹⁰ These casualty figures would act as a threshold for what was expected to await the Americans on Kyushu and Honshu. Former President Herbert Hoover, when asked for his

¹⁰ Frank, 71.

official counsel by President Truman, predicted casualties from Operation Downfall were in the range of between 500,000 and one million Americans.¹¹ These estimates became the major influence on President Harry S. Truman's subsequent decision making and center of gravity, a fear which the Japanese would seek to exploit. The actual estimations of casualties predicted from an invasion of the Japanese main island would differ significantly from source to source. The Joint Chiefs of Staff presented a report to President Truman on 16 June 1945 in which they estimated that, "the cost in casualties of the main operations against Japan are not subject to accurate estimate. The scale of Japanese resistance in the past has not been predictable."¹² It was made clear by military leaders however that based on Japanese resistance, predicted casualties would be high by historical American standards from previous combat operations against the Japanese. By 1945, according to historian John Skates, "now that Germany was defeated, the Japanese reasoned, public opinion in America would not stand for a long and costly campaign against Japan, and the American people would put tremendous pressure on the military to finish off Japan quickly and with relatively few American losses."¹³

Following two years of reversals and losses and shifting from the attacker to defender, the Japanese in July of 1944 executed operation plan "Sho-Go" or "Victory Operation." "The strategic underpinnings for Sho-go were defense, delay, and attrition in the Philippines, Formosa, and the Ryukyus. The aim was twofold—first, to inflict such losses and delays on U.S. forces that Allied leaders would have to accept a negotiated peace, and, second, if that failed, to buy time for organizing homeland defense. Parts 1 and 2 of the Sho-Go plan covered the defense

¹¹ Frank, *Downfall*, 133.

¹² Joint Staff Planners, "Joint Chiefs of Staff Details of the Campaign Against Japan," June 16, 1945, 7.

¹³ Skates, *The Invasion of Japan*, 103.

of the Philippines, Formosa, and the Ryukyus; part 3 covered Hokkaido, and part 4 dealt with defense of the homeland in Honshu, Shikoku, and Kyushu.”¹⁴ Continued U.S. victories and advances stifled Sho-Go and by “mid-April 1945 events were fast making the Sho-Go plan obsolete.”¹⁵

Following the loss of Okinawa to American forces in a battle that also claimed the last major remnants of the Japanese Navy, the Japanese Imperial Headquarters issued operation plan “Ketsu-Go” or “Decisive Operation.” While the U.S. saw a military, which had completely lost the initiative, its navy, and was now everywhere on the defensive, the Japanese took a different view. The Imperial General Headquarters viewed the strategic outlook in 1945 optimistically.

True, Japan had lost its navy and with it control of the Western Pacific right up to its shores. But the Imperial realm still included huge territories with vast resources and hundreds of millions of vassals on the continent and to the south. These territories also represented potential bargaining chips—some to keep to show a profit from the gamble on war and others to trade away to secure those gains or, in the final accounting to at least maintain the old order in the Homeland. Though airpower was much diminished, there remained thousands of planes and a bountiful supply of young men prepared to crash them into enemy ships. Above all, there was still a formidable army, backed by a stalwart civilian population, and the priceless asset of Japan’s home soil—arranged by providence to negate all the advantages of an attacker dependent upon machines rather than men.¹⁶

Ketsu-Go carried over basic policies for defense of the homeland that appeared in Sho-Go, with an increased emphasis on defensive fighting with a massive number of suicide attacks, guerrilla resistance, and attritional warfare to inflict staggeringly high numbers of American casualties. “For the final defense of the homeland, suicide tactics would be used on an unprecedented scale. In fact, reliance on suicide units to

¹⁴ Skates, 101.

¹⁵ Skates, 101.

¹⁶ Frank, *Downfall*, 83.

attack and destroy the enemy invasion fleet at sea was viewed as the first and most decisive phase of Ketsu-Go.”¹⁷

By 1945, thousands of kamikaze aircraft and pilots, suicide midget submarines, and suicide bombers were ready to execute the decisive operation as they considered themselves the “Divine Wind”, which had and would continue to save the Japanese from foreign invasion. Following Operation Iceberg on Okinawa, the Japanese had accurately predicted the invasion of Kyushu and an assault toward Tokyo. Thus, the military began to bolster the defenses of these areas heavily in 1945. Measures were taken to train the civilian population to fight the American invaders with whatever means they had available. The population’s ability to wage irregular warfare for an indefinite amount of time would only add to the protraction of the war. When coupled with the Japanese fighting spirit, the strategy of Ketsu-Go would prove a formidable defensive strategy which aimed to bleed the Americans enough to something that could be called “victory” or at least gain a negotiated peace. Understanding the associated risks and potentials, Truman faced the decision of how to proceed strategically to end a war that seemed would not end.

Imperial Japanese Long Time Horizon

By mid-1945, the Japanese had been at war with China for eight years, and the U.S. for nearly four. The Japanese in World War II maintained a long time horizon as their defensive position dictated advantage in the temporal realm. The initial gains of the early period of the war in the Central and South Pacific were now gone, and the objective of the Japanese was no longer conquest but survival, not only for themselves, and their nation, but also their Emperor, whose “country was staring

¹⁷ Skates, *The Invasion of Japan*, 108.

defeat in the face for the first time in centuries, and for the first time at home.”¹⁸ As a culture which showed loyalty to their emperors from 660 B.C., the Japanese maintained a long time orientation which, coupled with a warrior code of *Bushido*, firmly rooted them in a perception of time that was essentially infinite because it was linked to their societal existence. While the Japanese were blockaded in 1945, their resolution to live off of the land and acceptance of hardships would endure to the death.

The fervor with which the Japanese regarded the Emperor and their warrior code demanded that their objective of forcing a better negotiating position with the U.S. become central to their reasoning for continuing such a ruinous war. The idea of unconditional surrender was simply incomprehensible to them, as it would imply a loss of not only a monarch, but also a deified national leader whom they considered to be a god. In the minds of the Japanese, the fight on their own soil was a fight to the death, where their very existence hung in the balance, necessitating a long time horizon. For the Japanese, “the primary qualification required of one to become a hero of a long-endurance war is, needless to say, a redoubled perseverance. When not only a nation but also its army have such depth of willpower and perseverance as to enable them to undergo calamities without making the slightest stir, they will then be entitled to claim to be the adversary of a strong power.”¹⁹

Nonetheless, the Japanese material capacity to continue the war by 1945 was limited. But a shift to attritional war with irregular action, as stipulated by *Ketsu-Go*, would allow for as long a war as their will would let them. Though lacking the strength of fleets and aircraft, the Japanese valued the individual soldier to the extent that they derived capability from the man himself and not necessarily the machine. As the soldier was the determinant of capability, the Japanese adhered to a long

¹⁸ Dan van der Vat, *The Pacific Campaign: World War II The U.S. -Japanese Naval War 1941-1945* (New York, N.Y: Simon & Schuster, 1991), 387.

¹⁹ Kunoaki Matsuo, *How Japan Plans to Win*, 200.

time horizon of a defensive posture, which Clausewitz argued would be the stronger form of warfare. Historian Edward Miller makes the observation that in pre-war planning, U.S. military planners realized that, “Japan’s hope of winning lay in enlisting an ally: time.”²⁰

American Long Time Horizon

The United States’ positive political objective of Japan’s unconditional surrender necessitated a long time horizon. While the bombing of Pearl Harbor formally brought the Americans into the war in 1941, Washington’s decision to focus the weight of effort on Germany first meant that the Pacific campaign would continue at a slower tempo and intensity than that of the European theater. With uncertain timelines for victory in Europe, mobilizing forces for two vast theaters, and the tyranny of distance the Pacific imposed, the reasonable solution was to adopt a long time horizon.

While the U.S. maintained a societal short time orientation as a young country by international standards, the Japanese attacks of 7 December 1941 on American soil created a desire to see the war through until the end. The attacks galvanized the American people, who showed massive support for the war. Their fervor flooded throughout the country and was demonstrated in their elected-officials support of the President’s declaration for war, garnering every vote from the Senate and Congress minus one.²¹ “The Japanese attack on Pearl Harbor had ensured that the United States have never been more united.”²² As such, while the American time orientation remained short, the overpowering need to avenge the blow the Japanese inflicted created a long time commitment,

²⁰ Edward S. Miller, *War Plan Orange: The U.S. Strategy to Defeat Japan, 1897-1945* (Annapolis, Md: Naval Institute Press, 1991), 27.

²¹ Ian Kershaw, *Fateful Choices: Ten Decisions That Changed the World, 1940-1941* (New York: Penguin, 2008), 375.

²² Kershaw, 375.

which demanded reprisal and Japan's unconditional surrender. All this amounted to a deeply-seated commitment to pay large costs to exact these aims.

The clock was counting up for the U.S. in World War II as opposed to counting down. The strategic estimates and timetables associated with the Pacific Campaign centered around how much time and in what sequence campaigns and operations were required to accomplish the objectives rather than being constrained by the notion of quick victories. American prewar planning had stipulated that due to the vastness of the theater, military leaders should expect long timetables and the need to show patience. As Historian Max Hastings writes, "All strategy is powerfully influenced by logistics, but the Pacific war was especially so."²³ By understanding that Germany had to fall first, and that commitment in time was high, American strategists, while not constrained by time, remained cognizant of its influence. While American political and military leaders would be subject to time pressures, self-imposed and actual, they would handle them differently than if they had selected a short time horizon. Understanding the tyranny of distance, the long timelines of logistics, and the need to wait on an end to the war in Germany, U.S. military decision-makers mentally prepared themselves for a long time horizon and would resist the desire to react to these stresses with reckless choices and risky gambles. Instead American planners sought to experiment with opportunities to "cut the corner" or accelerate the war with calculated and risk-acceptable strategies.

The conduct of the conflict in the Pacific War leading up to 1945 resembled War Plan Orange, which would later be rebranded Rainbow-5. War Plan Orange was the prophetic blueprint of the war in the Pacific. The plan was beset with tension in its formation between "thrusters" and

²³ Max Hastings, *Retribution: The Battle for Japan, 1944-45*, 1st U.S. ed (New York: Alfred A. Knopf, 2008), 10.

“cautionaries.” Thrusters believed that victory had to be won quickly because the American people would not endure a long war, whereas cautionaries felt that Americans would accept a long war for a righteous cause but would lose heart if the fleet were lost in a premature gamble.”²⁴ The cautionaries would eventually win out, and their approach toward the plan showed an appreciation for a more gradual offensive policy that made forces ready while the U.S. industrial machine geared up.²⁵ The scheme of Plan Orange prescribed:

a strategy of three phases: in Phase 1 Japan was expected to strike south and west, seizing the lightly defended American outposts in the Far East and securing access to vital raw materials. During Phase 2, superior American air and sea forces would forge westward across the Central Pacific, fighting small-scale but intense attrition battles with Japanese forces and establishing advance bases. After two or three years, the deciding moment would occur at a time and place of Japan’s choosing, the two battle fleets would meet in a cataclysmic gunnery engagement which the American dreadnoughts would win. Phase 3 would witness American forces progressing northward from the Philippines across the island paralleling the Asian coast, installing bases which to strangle Japan’s imports and to ravage urban areas by bombardment. Japan would then sue for peace even though her proud army stood intact in the home islands and China.²⁶

While Plan Orange had not expected a surprise attack on the fleet at anchor in Pearl Harbor, or the simultaneous war in Europe it remained a critical planning apparatus for American strategists to start from. Plan Orange for years provided the assumptions of how the U.S. military would fight in the Pacific, and it came to shape its doctrine. The plan thus underwrote the mission requirements expected of the U.S. Army and Navy. Hence, it influenced not only doctrine, but also purchases of equipment, training, tempo and intensity of fighting,

²⁴ Miller, *War Plan Orange*, 79.

²⁵ Miller, 79.

²⁶ Frank, *Downfall*, 21.

logistical needs of the services, and--most importantly--impart on military planners the idea that a war in the Pacific would be long.²⁷

Historian Edward Miller would write, “when war came, the United States relied on peacetime experience as the foundation of its planning system.”²⁸

The U.S. military viewed its capabilities and advantages in light of Plan Orange as mass and attrition warfare with a focus on strategic bombardment, anti-shipping operations, carrier aviation, and large naval surface groups capable of deploying and sustaining amphibious operations.²⁹ Additionally, Plan Orange incorporated the time required for U.S. industrial production to reach full wartime capacity. With these assumptions in mind, American strategists understood the limits of their capacity to wage war: tyranny of distance, logistics, and long timetables to deploy overwhelming mass. Historian Edward Miller highlights, “the authors of Plan Orange judged this policy [Japanese plans for a long war of attrition to retain sea mastery and eventually negotiation] to be a fatal miscalculation because the United States would choose to fight long and hard [war] to defeat Japan unconditionally.”³⁰ Thus, the planning of War Plan Orange had not only created decades of thinking through a war with Japan, but had identified major friction points and realistic timelines. This planning would be essential to deterring a resurgence in “thruster” thinking at the outset of the war, as the plan had been previously scrutinized. The estimates of Plan Orange would hold for much of the war. Therefore, American planners entered the war in the Pacific with their time horizon already selected.

²⁷ Miller, *War Plan Orange*, 30.

²⁸ Miller, 323.

²⁹ Miller, 347–56.

³⁰ Miller, 332.

Long Versus Long Time Horizons in Conflict

As both belligerents had committed to long time horizons, the war in the Pacific became not a sprint to the finish, but a marathon. Japanese military intelligence officer Kinoaki Matsuo, predicted in 1940, that war with the United States would “be a kind of war of exhaustion.”³¹ Japanese leaders believed they could assume a defensive crouch after seizing their new empire and its resources, protected by a chain of island fortresses and the Imperial Japanese. Conversely, the United States, as the attacker, was likewise not hindered by time and strove to find opportunities and create shortcuts to end the war. Ultimately the U.S. understood fighting the Japanese in the Pacific required parity of long time horizons and sought to find opportunities to achieve decisive victory.

John Skates observes by “mid-April 1945 events were fast making the Japanese Sho-Go plan obsolete.”³² Following the American recapture of the Philippines, the bloody invasion of Okinawa, and the campaign of blockade and bombardment, the Japanese dug in for the long haul.³³ Accordingly, American strategists sought war-winning opportunities to devise a plan to defeat the entrenched Japanese. These plans included the continuation of the of siege of the home islands through blockade and bombardment, both of which were neither assured nor speedy endeavors. Additionally, with President Truman’s approval of Operation Olympic, military planners and staffs made the necessary preparations for the invasion of Kyushu, with the projected approval for invasion of Honshu to follow. The Yalta Conference in February 1945 saw a pledge from Russian Leader Joseph Stalin of Russian entrance into the war against the Japanese three months after the end of the war in Europe.

³¹ Kinoaki Matsuo, *How Japan Plans to Win*, 196–97.

³² Skates, *The Invasion of Japan*, 101.

³³ Skates, 102.

Lastly, following the test of an atomic bomb in Alamogordo, New Mexico on 21 July 1945, the Americans now possessed as President Truman would call it, “a new weapon of unusual destructive force.”³⁴

It became clear by March 1945 to the Joint War Planning Committee “that the ultimate defeat of Japan will require the invasion of Japan proper and the defeat of her ground forces there. Nevertheless, some of the American planners were still inclined to prolong the period of time before the decisive invasion in order to give the Japanese a chance to feel the effect of the sea-air blockade.”³⁵ This passage evinces two important concepts: the first, that American military planners held to the belief that the only way to force Japan’s unconditional surrender was through invasion, and second, that even though time pressure to end the war quickly was mounting, the U.S. was willing to wait for other efforts to take effect, specifically, the blockade and bombardment plan, and the results of the Manhattan Project.

³⁴ Frank, *Downfall*, 466.

³⁵ Ray S. Cline, *The War Department Washington Command Post: The Operations Division*, United States Army in World War II (Washington, D.C: Center of Military History United States Army, 1990), 342.

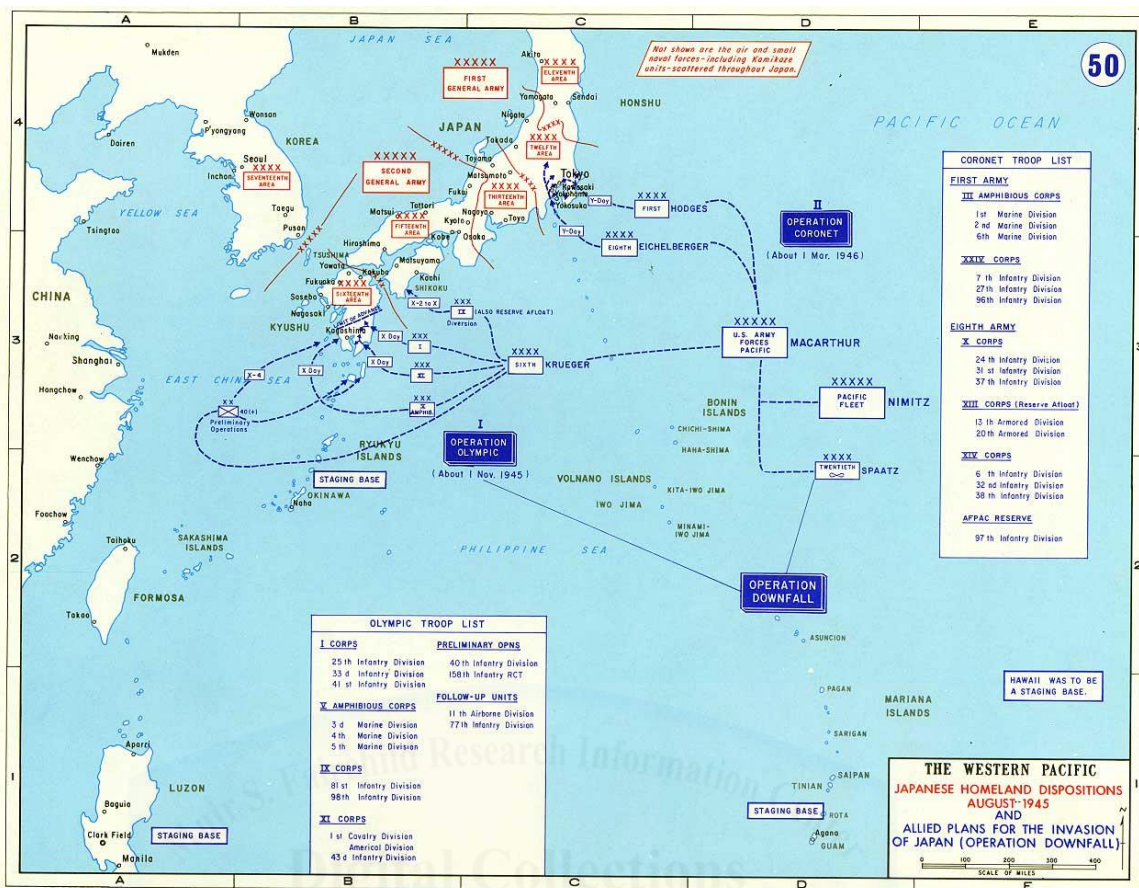


Figure 6: Japanese Homeland Dispositions August 1945 and Allied Plans for the Invasion of Japan (Operation Downfall).

Source: Reprinted from West Point Atlas-World War II Asia-Pacific. Accessed 31 May 2018. <https://www.westpoint.edu/history/sitepages/our%20atlases.aspx>

While the U.S. public and military commanders desired a swift end to the war, the long time horizon of the U.S. allowed for proper timing and duration to come to fruition instead of taking risky gambles in favor of expediency. Based on the determined Japanese resistance on Okinawa and the strategy of Ketsu-Go, the Americans had to find or create opportunities to end the war. Many wartime innovations, even those at the tactical and strategic level were efforts to accomplish such feats. “When wars persist over an extended period the logic of human conflict causes the participants in the war—the ones that survive—to strive for

ways to overcome the enemy's warfighting system."³⁶ The Japanese did this as well; and their ingenuity in kamikaze tactics, guerrilla fighting, and casualty exploitation all show marked interest in finding ways to produce favorable options for the Empire. The opportunistic efforts of both opponents are characteristics of when two long time horizons both dig in and seek to break the stalemate of war through seeking shortcuts to victory while maintaining their focus on their objectives. While both confronted by the stress of time pressure, neither would be cowed into making hasty and reckless decisions as a result. Both the Americans and Japanese looked for opportunities to end the war on their terms, but the realities of the situation did not warrant overreliance on single concepts, and everything would be attempted while staying the course.

For the U.S., while preparations were being made for Operation Downfall, the shortcuts of blockade and bombardment were working in parallel. Still, U.S. military strategists feared that the invasion of Japan proper was the only way to deliver the coup de grâce. However, the objectives of the Japanese and Americans never changed and thus their time horizons remained fixed. American decision-makers, primarily President Truman, were unwilling to adjust their aims of unconditional surrender, which included no provision to keep the Emperor, while the Japanese objective of keeping the Emperor in power and keeping certain territories on the Asian mainland remained firm. By talking past each other, the two sides continued the war as one of exhaustion while both opponents sought to find opportunities to end the war on their terms.

As the war dragged on, time pressure started to weigh on American and Japanese senior decision-makers. As both belligerents maintained long time horizons, the stress of time pressure did not have the same effect as it would on short time horizon opponents or if only one had a

³⁶ Robert R. Leonhard, *Fighting by Minutes: Time and the Art of War* (Westport, Conn: Praeger, 1994), 64.

long time horizon. The Americans and Japanese both saw their decisions as calculated and unconstrained by perceived urgency. The long time horizons dictated that time was an abundant resource which allowed each side to focus on more deliberate decision-making that was not risk-seeking in nature. Only following the Potsdam Declaration, which exerted the significant time pressure on both the Japanese and the Americans, did the decision-makers demonstrate their reaction to the stress of urgency.

The Potsdam Declaration was signed by American, British, and—in absentia—Chinese leaders, on the evening of 26 July.³⁷ The ultimatum specified: “Following are our terms. We will not deviate from them. There are no alternatives. We shall brook no delay.”³⁸ The last sentence stated, “We call upon the government of Japan to proclaim now the unconditional surrender of all Japanese armed forces...The alternative for Japan is prompt and utter destruction.”³⁹

In response to the Potsdam Declaration, Japanese Prime Minister Kanatō Suzuki announced, “the government does not regard [the Potsdam Declaration] as a thing of any value; the government will just ignore it. We will press forward resolutely to carry the war to a successful conclusion.”⁴⁰ The stress of time pressure usually associated with an ultimatum against a country that was on the defensive and severely constrained bore no influence on Japanese decision-making. The Japanese commitment to a long time horizon and its objective meant that it had time ad-infinity and would endure, win or lose.

So, the Japanese dug in and awaited the inevitable invasion. It would be noted after the war in the Army Air Forces Strategic Bombing Survey that “Japanese military leaders welcomed an invasion as it would

³⁷ Frank, *Downfall*, 469.

³⁸ Frank, 469.

³⁹ Frank, 470.

⁴⁰ Frank, 234.

be so costly to the attackers they would opt for a negotiated peace.”⁴¹ This given dedication to objective of not accepting unconditional surrender, coupled with a long time horizon, seemed an optimal plan for achieving Japanese aims at that point in the war. As the meaning of Ketsu-Go implies, the decisive operation could, in the Japanese mind, still lead them to victory if they could inflict enough casualties on the Americans to force them to disengage.

The U.S. committed similarly to the long haul strategy while resisting the stress of time pressures. By 1945, the “the hard kernel of that core was a military dilemma—defeating Japan’s military, which still had five million men under arms, without large casualties and without abandoning unconditional surrender.”⁴² The goal to defeat Japan within a year of Germany’s fall, still existed, but President Truman remained more concerned with the risk in casualties than in the time required to achieve campaign results. In a memorandum dated 14 June 1945, White House Chief of Staff Admiral William Leahy asked the JCS on behalf of the President for estimates in time and casualties to obtain unconditional surrender from the Japanese through isolation, blockade and bombardment and believed that “it is probable that the cost in ground force casualties for the first 30 days of the Kyushu operation will be on the order of that for Luzon [31,000 U.S. casualties].”⁴³ Admiral Leahy emphasized the President’s position on the subject when he wrote Truman intended “to make his decision on the campaign with the purpose of economizing to the maximum extent possible in the loss of American lives. *Economy in the use of time and money cost is comparatively unimportant* [emphasis added].”⁴⁴ The JCS then replied to

⁴¹ Meilinger, *Airwar*, 163.

⁴² Skates, *The Invasion of Japan*, 244.

⁴³ The Joint Staff, 3.

⁴⁴ William D. Leahy, “Memorandum for the Joint Chiefs of Staff: JPS 697/D,” Memorandum, June 14, 1945, 1–2.

the President in a report addressing campaign plans for Japan. Under the subsection of “8. Time,” the JCS reported:

under the campaign as planned, it is estimated that the defeat of the Japanese in the Tokyo Plain area and the seizure of ports on Tokyo Bay would be completed by mid-1946. Should it prove necessary to execute other operations prior to invading the Tokyo Plain, the earliest date by which the latter operation could take place is estimated to be October 1946, because of adverse weather and ground conditions and the necessity of further mobilizing resources. In either case, the war should be over not later than the end of 1946. On the other hand, we are unable to estimate the time required or the losses that will result in an effort to defeat Japan by isolation, blockade, and bombardment without invasion, because of our inability to predict at what stage thereof the Japanese might concede defeat, and because of the possibility that invasion of the Tokyo would ultimately lead to a longer and probably more costly war.

9. In summary, our planned course of action is:

a. To proceed with an operation against southern Kyushu on 1 November 1945, as presently directed.

b. To plan and prepare for an invasion of the Tokyo area with a target date of 1 March 1946.

c. To exploit to the utmost in the interim periods the possibilities of blockade and air bombardment of Japan from positions in the Marianas, Iwo Jima, the Ryukyus and Kyushu.

d. To base the decision as to operation following southern Kyushu on developments.⁴⁵

Nowhere in the document is there a mention of a hurried timeline. Furthermore, there is no mention of the atomic bomb as a method of ending the war quickly, mostly because knowledge of the program was limited.

⁴⁵ Joint Staff Planners, “Joint Chiefs of Staff Details of the Campaign Against Japan,” 8–9.

Some have historians have argued that there were three main reasons for dropping the atomic bombs: the desire to save American lives, to end the war quickly, or intimidate the Russians. This study does not seek to relitigate this argument, but show how time pressures affected President Truman's decision-making process with respect to risk. The long time horizon of the United States allowed President Truman to react to time pressure without a debilitating sense of urgency. The President's decision to drop the atomic bomb on 6 August 1945 was the result of a decision to avoid risk rather than take it. The effects of the bombs on Japan's decision-making in 1945 were unknown. While it is easy to look back on the event and recognize the significance of atomic weapons, that knowledge was not foreordained in the summer of 1945. To many, the atomic bombs were just a larger bomb that gave the American arsenal yet another arrow in the quiver.

The riskier decision would have been to execute operation Downfall. Instead, Truman deliberately chose the less-risky option of dropping the atomic bombs as an opportunistic strategy to compel Japan to end the war, similar to other opportunistic strategies in the war. The long American time horizon enabled Truman to pause and think through his dilemma. Had the bombs not brought about surrender, then the invasion could have commenced. "In the War Department the decision to use the bomb played no part in orthodox military staff work."⁴⁶ "Military and political leaders, certainly not George C. Marshall or Henry S. Stimson, did not see the bomb as a discrete and cataclysmic weapon. Instead the bomb was another powerful component in a crescendo of force that also included a Soviet declaration of war, imminent invasion, and the inevitability of destruction and strangulation through bombing and blockade."⁴⁷ Furthermore, General Marshall "remained unconvinced,

⁴⁶ Ray S. Cline, *The War Department Washington Command Post: The Operations Division*, 347.

⁴⁷ Skates, *The Invasion of Japan*, 244.

even as the Interim Committee met, that naval blockade, conventional bombing, or even the atomic bomb could force the Japanese to unconditional surrender. If the invasion had to proceed, the bomb would be a devastating weapon in the pre-invasion bombardment. Marshall did not see the invasion and the bomb as representing two discrete alternatives.”⁴⁸

Following the dropping of the first weapon, “Little Boy”, on Hiroshima on 6 August 1945, the Japanese did not surrender. The war continued, plans for Operation Olympic carried on “while the conventional air campaign continued.”⁴⁹ On 7 August, 131 B-29s attacked Toyokawa naval-ammunition plants, inflicting 2,699 casualties and 1,408 fatalities.⁵⁰ The following day 245 B-29s attacked the city of Yawata, burning out 22 percent of the city.⁵¹ On 9 August, the second bomb, “Fat Man” was released on Nagasaki with devastating effect. On 10 August, 70 B-29s attacked Tokyo killing 232 people. America’s long time horizon and commitment to its objective of unconditional surrender would demand that continued fighting despite the atomic bomb’s entrance into the war.

Likewise the Japanese fighting spirit was still intact on 11 August, as a statement quoting Army Minister Anami exclaimed: “Even though we may have to eat grass, swallow dirt, and lie in the fields we shall fight on the bitter end, ever firm in our faith that we shall find life in death.”⁵² America and Japan would continue fighting a long war of exhaustion until 11 August, when Japan sued for conditional surrender with the stipulation that the Emperor remained in power along with three other conditions of self-disarmament, Japanese control of any war-crime trials,

⁴⁸ Skates, 243.

⁴⁹ Frank, *Downfall*, 277.

⁵⁰ Frank, 269.

⁵¹ Frank, 277.

⁵² Frank, 299.

and no Allied-occupation of Japan.⁵³ These terms were unacceptable to the Americans. While diplomacy slowly changed the objective for the Allies from unconditional surrendered to conditional surrender, on 14 August the U.S. launched the largest bombing raid of the war with 1,000 planes on the Nippon Oil refinery.⁵⁴ By 14 August, the final declarations of surrender were approved and President Truman allowed the Emperor to remain a governmental figure at the discretion of the Supreme Commander of the Allied Powers and the freely expressed will of the Japanese people.⁵⁵ Both parties found these terms agreeable and thus they brought about the conclusion of the war in the Pacific after nearly four years of brutal fighting.

It was not until U.S. objectives changed to include retention of the Emperor that both the U.S. and Japanese changed to short time horizons. As such, their collective desire at this point to end the war quickly allowed them to settle on a diplomatic resolution to the war. Had the objective of unconditional surrender with the Emperor's removal remained, the U.S. would have remained on course for invasion, while looking for other opportunities to bring about the end sooner rather than later. The atomic bomb was similar to an earlier decision to isolate and bypass non-essential Japanese-held islands. The atomic bombs were seen by American leaders as another opportunity to be tried, with the hope that it would end the war. Ultimately, the American acceptance of its new object of ending the war with allowance for the Emperor to exist within the Japanese governmental structure would end the war on terms favorable to both sides.

In a handwritten letter to Professor James Cate, President Truman explained his decision to drop the atomic bombs on Japan. The letter referenced to the cost of American casualties for the invasion; the

⁵³ Frank, 291.

⁵⁴ Meilinger, *Airwar*, 161.

⁵⁵ Frank, *Downfall*, 302.

number most U.S. leaders agreed upon was one million. Truman's implores that his decision was about "saving lives" in hopes that an invasion would not be necessary.⁵⁶ He did not mention time.

Conclusion

The devastation wrought by the Pacific war underscored the wisdom of Sun Tzu, that "there has never been a protracted war from which a country has benefited."⁵⁷ The long time horizons of both the U.S. and Japanese determined that the war would be a marathon until exhaustion and largely free from the time pressures normally associated with at least one belligerent having a short time horizon. This war illustrated that two countries with unlimited commitments in time will make decisions more deliberate and not as risk-seeking as those with short time horizons. In sum, both opponents will dig in. The need to find opportunities to end the war and break through stalemates is a characteristic of long versus long time horizons.

In the case of the Pacific War, the United States found and exploited the opportunity presented by atomic weapons and thus found a shortcut to end the war before the invasion. The Downfall invasion plan, despite the estimated casualties, would have proceeded unless the objective of unconditional surrender changed and with it, the associated time horizon. The Americans remained resolutely committed to the objective of unconditional surrender until the after the second nuclear bomb was dropped. Only then did the Japanese accept, in Emperor

⁵⁶ Harry S. Truman, "Letter from President Truman to Professor Cate," Letter, January 12, 1953.

⁵⁷ Sunzi and Samuel B. Griffith, *The Illustrated Art of War* (New York: Oxford University Press, 2005), 105.

Hirohito's sublime words, that "the war situation has developed not necessarily to Japan's advantage." Inevitably, the war of two long time horizons locks both opponents into a death-spiral that is only broken when one finds a way to exploit an opportunity over the other, as they are both committed in time. With long time horizons which present time in abundance, neither country perceives the need for risk-seeking behavior in their decision making enabling them to create ways to gain advantage over their opponent.



Chapter 7

Conclusion, Implications, and Recommendations

Time is undoubtedly the least forgiving of errors among strategy's dimensions.

-Colin Gray

Conclusion

This study set out to answer the question of “how does time and specifically time pressure effect military strategic decision-making?” The study of time and strategy in the case studies of Vietnam in 1972-1973, the Yom Kippur War in 1973, and the Pacific War in 1944-1945, provide insight into how opponents fight and make decisions not in the third dimension, but in the fourth. The resulting insights revealed how opponents at the strategic level incorporated time into strategy by the formulation of time horizons, and how time horizons and time pressure affect strategic decision-making.

When creating a strategy, military and political leaders create time horizons to guide strategy in achieving their political objective. This political object defines the magnitude and duration and associated amount of sacrifice an opponent is willing to endure for the accomplishment of that object. Thus, creation of a time horizon is determined by the time orientation of the society, time commitment an opponent makes to achieve his objective, and the time available to accomplish the achievement of the objective as enabled by military capability, capacity, and doctrine. These inputs, which center around the political object, create a time horizon, either long or short. Both opponents create a time horizon at the outset of a conflict war. The definition of each time horizon's length is relative to the context of the

situation, as well as the opponent's time horizon. Thus, when they clash, their time horizons are relative to each other and will characterize the conduct of war by each opponent, and may change over the course of the conflict as roles reverse or objectives change.

As the time horizon draws closer or time pressure is imposed by either oneself, the enemy, or from outside factors, that time pressure starts to exert stress on decision-makers. Decision-makers will deal with time pressures differently based on their time horizons. Short time horizons, in most cases, will cause an opponent to escalate a conflict as time pressure is imposed, as shown in the case of the U.S. in Vietnam in 1972-1973, and both the Arabs and the Israelis in 1973. Additionally, short time horizon decision-makers will take on more risk in an attempt to secure a decisive point before their time horizon runs out. In contrast, those opponents operating with long time horizons will mostly dig in and stiffen their resolve to fight, as did the North Vietnamese in 1972, and the U.S. and Japanese in 1945. Long time horizons provide decision-makers with the luxury of time, allowing them to make deliberate decisions without the urgency of a short time horizon; thus, they are not as risk acceptant when facing time pressures.

Understanding the relationship between time and strategy forces military strategists to explicitly take time into account when crafting a specific strategy. Furthermore, the understanding of "time" in war awakens the strategist to an aspect of strategy which can be used both as a resource and a weapon, to be wielded and defended against. Ultimately, the strategist and decision maker alike must recognize the temporal aspects of strategy and attempt to harness it for their advantage. Those strategists who fail to use time effectively to their advantage will ultimately pay the cost. As with each tick of the clock, another unforgiving moment passes, never to be regained. As Napoleon

quipped, “Strategy is the art of making use of time and space. Space we can recover; lost time, never.”¹

Implications

The implications of this thesis focus on time horizon selection and time pressure’s influence on decision-making.

Political Objectives

When drafting strategy, the time horizon must be appropriate with the time horizon, or the time horizon has no reasonable expectation of success. Therefore, in objective creation, a prudent estimation of time required must be impressed upon senior leaders. In the Pacific War, U.S. leaders who may have desired a short time horizon (thrusters) to gain “unconditional surrender” had to face the realities of the temporal constraints of the theater, the Japanese will, and the sequencing of “Germany first.” Therefore, American leaders were wise to choose a long time horizon. Based partly on the concept of years of wargaming the Pacific in War Plan Orange, these results allowed leaders to understand that a short time horizon was not congruent with their objective.

Temporal Trinity

The temporal trinity provides insight into how their elements can influence time horizon selection. As the value of the political object has a direct impact on how long people are willing to sacrifice for its attainment’ their temporal commitment should coincide with realistic estimates of

¹ Michael Keane, *Dictionary of Modern Strategy and Tactics* (Annapolis, MD: Naval Institute Press, 2005), 204.

conflict duration. The Americans were committed to a long war in 1941 and still in 1945, their descendant compatriot's short temporal commitment in Vietnam. This demonstrates an important implication of cultural time orientation: it can change based on the context and the object. Therefore, when evaluating a culture's time orientation, there may be a propensity to view a culture's time horizon as absolute, when in reality it may change when at war. Furthermore, in some cases, the perception of time available is usually influenced by a self-imposed idea rather than by events. The Israelis, for example, almost demonstrated a nuclear device when they perceived that the Jewish State was under existential attack when in reality the Arabs had no intention of attacking Israel proper. These temporal elements require recognition and understanding before selecting a time horizon.

Physical Trinity

Likewise, the physical trinity elucidates implications critical to military strategists and leaders. While the discussion about doctrine, capability, and capacity may seem cyclical, in actuality an opponent's ability to pay for and maintain military capabilities in the form of personnel and armament influence the selection of doctrine. Opponents must go to war with the army they have and not the one they would like to have. As the Israeli's capacity was limited, requiring high tempo and short wars, they favored the selection of air and armor as their primary military capabilities. As a result, their doctrine was of maneuver warfare. Therefore, when viewing the physical trinity, it is critical that strategists and leaders properly align their time horizon with the actualities of their forces. Lacking this insight may result in high operational risk to forces and an inability to for militaries to accomplish that which is asked of them.

Short Versus Long Time Horizons

The case study of short and long time horizon reveals that both opponents can attempt to use their time horizon to their advantage. Short time horizons will use their high tempo operations to force the enemy off-balance, while long time horizons will exploit strategic patience. General Giap's use of Mao's doctrine demonstrates the success of protracted warfare, even though the North Vietnamese were militarily inferior to the United States. The case shows that short time horizons are not always advantageous, and the willingness to persevere can make conflicts drag on and become prolonged.

This prolongation of war for a short time horizon may trigger an opponent to escalate to win. The concept that time is running out, or has already run out, may prompt an opponent's change of objectives to something achievable, with escalation as a last effort to achieve it before departing. Thus, as the implication of escalation by a short time horizon opponent if things are not preferable is a reality.

Additionally, this case study highlights the concept of time horizon manipulation, as a way to pressure an opponent. By inducing pressure to end the war, or by posing an ultimatum, opponents can impose time pressure on an enemy. The DRV consciously attempted to sway U.S. public opinion to end the war by keeping U.S. casualty counts high. Likewise, Nixon's choice to use an ultimatum is a clear case of imposing time pressure on the North Vietnamese. The difference in time horizons, however, resulted in opposite reactions. This use of time horizon manipulation can be a significant weapon for strategists to wield in times of war. Equally, strategists must be keenly aware and defend against opponents employing time pressure manipulation.

Short Versus Short Time Horizons

The implications from the case studies reveal considerable lessons for military strategists, as shown in the short time horizon battle of the Israelis and Arabs. The study demonstrated the propensity of short time horizon opponents to escalate a conflict as a result of high tempo and self-imposed limits on time. This escalation, inadvertent or desired, can spiral out of control, creating a large conflict with more entrants. This escalation can prove significant if the belligerents have nuclear weapons.

Logistics and capacity are central in conflicts of short time horizons. As the rate and intensity of the fighting consume supplies and men voraciously, the idea of replacing combat losses can put significant stress on decision-makers to escalate a situation before forces are completely wiped out. The replacement of losses, however, may not be fast enough to keep fueling operations. While the Israelis and Arabs had the patronage of the U.S. and USSR respectively, other opponents who either do not have a patron or are a patron themselves can find themselves with no ability to replace losses. This inability to sustain operations may lead to escalatory and risky behavior.

As short wars are theorized by many to be the preferred method of warfare, opponents may seek out short time horizons. In doing so, short time horizon opponents will adjust their doctrine, capability, and capacity. If the globe becomes populated with short time horizon opponents, the battlefield may see more escalation and incredible consumption of life, treasure, and arms. This consumption may draw in more opponents as a result.

Long Versus Long Time Horizons

The implications of analyzing two long time horizon opponents in conflict show the importance of objective selection, offramps, logistics

and geography, and high capacity. The U.S. and Japanese resolutely held their convictions to achieve their political objectives. As a result, the duration of war dragged on—and without an agreement to preserve the Emperor, the war may have continued for years and required a land invasion for both belligerents. Only when objectives changed, did the war come to an end. Therefore, this case shows that while long time horizon opponents will dig in, off-ramps may serve as an effective tool for both opponents to end conflict on favorable terms sooner rather than later.

The vastness of the Pacific theater serves as a reminder to strategists that long distances may inherently require long time horizons. The U.S. wargaming of Plan Orange was a critical tool to evaluate the logistical needs and time constraints that geography can impose on military strategies. U.S. war planners were wise to understand the logistics requirements and geographic constraints of war before selecting a time horizon. This lesson may serve future strategists as well as conflicts may require force projection over vast distances with heavy logistics requirements.

Lastly, the need for high capacity in long time horizons war is essential. Militaries will face heavy losses as a function of more engagements over a long period of time. Therefore, the attrition and industrial output of supplies are paramount for sustained combat. As such, belligerents may have to wait for wartime for full industrial mobilization. As a result, long time horizon opponents may have to exercise low tempo operations until industry catches up.

Time Pressure and Decision Making

The effects of time pressure on decision-makers can create risk-acceptant behavior, leading to reckless choices. Sadat's decision to leave the safety of his missile umbrella and press into the Eastern Sinai is an example of taking on risk as a function of time pressure. Nixon's choice

to launch operation Linebacker II is yet another. These risky actions serve as outstanding case studies for decision-makers to observe. They evince the concept that selection of a short time horizon inherently implies a predisposition toward risky decision-making, as time is already counting down quickly toward a deadline. Furthermore, as time pressure mounts, decision-makers may feel the urge to take on risk by creating their own decisive point by escalating to win. Thus, the significant implications of time pressure on decision-makers is an essential factor of warfare that requires addressing.

Recommendations

The author's recommendations from this research for strategists and decision-makers is simple. Military strategists must 1.) find a common lexicon to discuss time, 2.) pay time its due by making it a principle of war, 3.) find harmony between the selected time horizons and political objectives, and 4.) build time for decision-makers to make deliberate choices free from unnecessary time pressure. While these recommendations do not guarantee success on the battlefield, they arm the strategist with the necessary perspective to understand how every choice comes at a cost, and every cost has a temporal aspect to it. As lost time cannot be regained, the failure to address it gives to an opponent willing to use time the upper hand.

Time requires its own lexicon. The levels of warfare should not blur the terminology of time nor should specific service definitions. While this paper has presented several definitions and terminology, they are the preferred terminology used by the author only and not standardized; there is no standard military definition of temporal terminology. The terms time, tempo, speed, velocity, rate, frequency, timing, etc. carry their own connotations and institutional preferences. These terms manifest themselves in catchphrases like "Lightning War", "Shock and

Awe”, or “Thunder Runs.” These phrases create themes and these themes start to take root and create dogmatic approaches to warfare. In the case of the U.S., the results of modern wars like Desert Storm or Operation Iraqi Freedom have created a temporal lexicon that lacks a word for “slow” that does not also imply failure. Strategists need to find and agree upon definitions that will allow for discussion between levels of warfare without confusion. Furthermore, by setting a lexicon that is neutral and allows for modulation, this can open the aperture for strategists to explore all temporal possibilities, free from negative cultural stigmas associated with the notions of either long or “slow” wars. Only then can a strategist develop a baseline for discussing time and strategy.

Strategists must pay time its due by creating a principle of war that addresses the fourth dimension. While elements of time have become principles, the concept of time writ large has not been raised to the level of a mainstream principle. Speed and surprise have ascended to the level of principle in some military services, yet time has not. The principle of time should be added to U.S. military Joint Publications Series along with standardized temporal definitions. Elements of time, such as duration, tempo, and sequence, are not addressed as principles but rather as operational considerations. Time in its entirety, from the physical, cultural, and cognitive, must take its place among other principles of war, as it touches all things. The creation of time as a principle will help strategists to recognize the implications of explicitly including time in both planning and execution of strategy. In many ways, by addressing time in an explicit manner, strategists can not only help to guard against enemy advantages of time horizons but also avoid cultural and strategic tendencies of their own which time horizons may drive them toward. Michael Handel is right to remind the strategist, “time is shared by the antagonists in war. Since both are simultaneously trying to impose their wills upon the other, the one who can make better use of

time gains the advantage.”² Strategists need to understand that to master the temporal aspects of strategy requires the ability to modulate between short and long, fast and slow, and how these aspects interplay at each level of war. Just as specific strategies are grounded in context, so too must the application of the principle of *time*.

To make best use of time, strategists must find harmony between time horizons and the political object. In doing so, the congruence created will only help to ensure a unity of effort in accomplishing the political object at the appropriate magnitude and duration. If time horizons are incongruent with the realities of the temporal or physical trinitities which created them, then tension exists, which could prove to be disastrous. Military strategists must be honest with political leaders by giving them realistic time horizons that match the context. Furthermore, strategists must help political leaders address the realities, implications, risks, costs, and level of temporal commitment required to accomplish the political purpose before “crossing the Rubicon” of war. Only then can the correct time horizon be matched to the achievement of the object. Through this agreement, the strategist can create temporal coup d’oeil.

Finally, strategists need to buy time for decision-makers to enable them to make choices without the unnecessary stress of time pressures. Dolman argues “the strategist’s function is to construct an operating structure or rule set that increases the time available for decision-making.”³ By creating an environment free of time pressure or misplaced urgency, “decision makers gain time necessary to interpret actions on the battlefield and to modify plans and objectives accordingly.”⁴ As decision-makers are prone to take more risky choices when under the stress of time pressure, it is of the utmost importance that strategists attempt to

² Handel and Army War College (U.S.), 141.

³ Everett C. Dolman, *Pure Strategy: Power and Principle in the Space and Information Age*, Cass Series--Strategy and History 6 (London; New York: Frank Cass, 2005), 154.

⁴ Michael I. Handel and Army War College (U.S.), eds., *Clausewitz and Modern Strategy* (London, England; Totowa, NJ: F. Cass, 1986), 140.

alleviate the stress of time pressure, freeing decision-makers from the constraints of time so as to make better decisions on the conduct of war. As nothing happens in warfare absent of time, the strategist and decision-maker must recognize time, appreciate it as a resource and weapon in strategy, and use it effectively in making decisions that are paid in blood, treasure, and time. As Clausewitz notes and John Boyd reaffirms, "Strength of mind or of character" is "the ability to keep one's head at times of exceptional stress and violent emotion."⁵



⁵ Carl von Clausewitz, Michael Eliot Howard, and Peter Paret, *On War*, First paperback printing (Princeton, N.J: Princeton University Press, 1989), 92–123.

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