THE 5 DISRUPTIONS AND HOW DOES THE U.S. PREPARE FOR MANAGING THEM

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Introduction

The end of U.S. combat operations in the Global War on Terror (GWOT), coupled with Russian struggles in Ukraine, has created a strategic uncertainty-- similar to the environment after WWI. The 'winners' from WWI were seriously weakened or effectively finished as great powers. Rather than creating a mechanism to solidify pre-war positions, the Great War created a power vacuum. A new Great Power competition emerged with a shuffled group of competitors. Likewise, the U.S. led GWOT and Russian aggression have weakened both states and cast doubts about their ability to exert their will in future events. The era between the World Wars was a multi-power system. Today's era is also a multi-polar system with new States and non-States looking to change the international system. Succeeding in this era will require deliberate understanding of the new era and smart strategic decision making that emphasizes management of the disruptions that will emerge as the era progresses. The aftermath of WWI created a unique inflection in that disruptions across five broad areas came together at the same time. The international environment shifted from a Eurocentric world to one with many spheres of influence. Diplomatically a number of initiatives were pushed—such as the League of Nations, the World Court, major humanitarian efforts, and the Washington Naval Conference—some successfully, others not so much. Technology rapidly evolved, with both new innovations and the maturation of innovations introduced before and during WWI. Economically it was a boom (and bust) period with significant changes in wealth distribution. The upheavals rippled through populations, with the U.S., seeing major shifts in work and population patterns.

Disruptions are commonly thought of as technology creating changes in existing industry. While this is true as technology can be transformative, there are other, non-technical changes that are just as disruptive. These perturbations are often conceived as 'Black Swan' events¹, but shifts often happen over many years until a 'tipping point' is reached. Often, as Taleb noted, these disruptions 'spring out of nowhere' but the trends were apparent and either hubris or biases caused the surprise. While we like to think of disruptors appearing suddenly, in reality many of the strategic disruptors have been in existence for years. Strategic disruptions can be 'bucketed' into five categories— diplomatic, technical, military, economic and societal. While the paper focuses on the United States, these disruptions happened across the globe. The metaphor, 'buckets' is apt in the sense that it easy to categorize the changes in terms of a domain, however the term is also a bit misleading as these disruptions 'spill over' into all areas. While we talk about buckets as in the context of contained, we should be cognizant of paint splatters that combine to create new color hues. Technology advances in one area such as transportation that in turn affects many areas such industrialization, economic, social, and military capabilities. Disruptions are better thought of as systematic influencers or shocks that cause new patterns to emerge.

Post World War I

The aftermath of WWI caused a catastrophic rent in the fabric of the international environment. Dominant powers of the pre-war era were either eliminated or severely hampered by the war's aftermath. Great Powers entering the war like England, France and Germany were significantly weakened. Other leading empires, like the Austria-Hungary and Ottoman Empires ceased to exist. Even powerful states, like Russia, suffered through a major Disruption. In Russia's case, the Communist revolution created a new form of government

¹ Taleb, "Fooled by Randomness"

and economic structure. For the U.S., the end of WWI saw a country with growing strategic influence.

A brief review of the 5 Disruptions that occurred after WWI highlights the shocks the international environment underwent in this era. Some were recognized—the emergence of the aircraft for example, but others only in hindsight. The maturation of the electricity grid is an illustration of a major change that did not receive recognition for years. The electrical grid, in hindsight, accelerated the global divide that eventually transformed the world into 'connected' vs 'disconnected' as Thomas Barnett (2006) observed many years later. The 5 Disruptions for the purpose of this paper are Diplomatic efforts, Technology, Military, Economics and Society.

Major Diplomatic Efforts

As a rising power, the U.S. led a number of efforts after WWI. Perhaps the most significant U.S. led effort was the League of Nations. A joint proposal of the U.S. and Great Britain, the League of Nations was designed to provide a forum where the international community could discuss issues and act collectively to prevent aggression. While the League was unsuccessful, it did bring the concept of an international body to the global collectiveness and paved the way for the United Nations after WWII. More importantly for this discussion, the U.S. led initiative signified the emergence of the U.S. as perhaps the leading international voice. Additional U.S. diplomatic efforts included pairing diplomacy with economic actions such as restricting oil and steel exports to Japan, military treaties to limit force sizes (the Washington Naval Conference), protectionist tariffs on imported goods to promote U.S. manufacturing and continuing efforts to keep WWI treaty conditions in place.

Major Technology Innovations

During this time, many innovations came to fruition. Manufacturing breakthroughs that began before WWI continued unabated. Ford continued to improve his assembly lines and other companies began to copy and adapt the processes to their industries. Elton Mayo, Edward Demming, and others introduced scientific rigor to the manufacturing process and introduced standardization to the American (and world) consumers. The insights gained from the process improvements continue to resonate one hundred years later. Process improvements were only one part of the industrial revolution. Along with breakthroughs in process improvements, material breakthroughs rapidly followed. Exploration with new materials created a lengthy list of technology breakthroughs. The television, the flip-flop circuit (data storage breakthrough), arc welders, liquid-fueled rockets, jet engines, penicillin, short wave radio, frozen food, canned beer, magnetic recordings (Used in radio initially), voice recognition devices, etc. all were achieved in the period after WWI. Undergirding the transformation was the availability of reliable, cheap energy. The energy grid emerged during this era as well. Like many of the Disruptions discussed, the grid did not explode across the U.S., but rather slowly expanded until it reached a tipping point. Edison had built the first electricity generation facility in the 1880s, but it was not until after WWI that the national effort was completed. Once enough communities adapted electricity, and possibilities became manifest, the country committed the necessary resources to build the electric grid. This took a period of years as communities slowly adapted, but once enough communities adapted, it became a national imperative.

The U.S. as a Military Power

The biggest change for the country's leadership was the U.S. ended WWI as a major military power. The U.S. military—compared to its European peers, was significantly more modern and powerful. Innovations introduced in the run up to and during the first World War were maturing—and creating more innovations. Improvements in combustible engines led to rapidly evolving capabilities in armoured vehicles, ships, and aircraft. Two significant military developments emerged in this era. The U.S. Navy began experimentations with ships and aircraft that eventually led to the Carrier Battle Fleet concept. The U.S. Army, led by Billy Mitchell, began to explore capabilities in long range munition deliveries that led to the creation of the U.S. Bomber capabilities during WWII.

The U.S. as an Economic Power

Economically, the second wave of industrialization produced major Disruptions in two areas. The U.S. economy grew by 42%² during the 1920s with a corresponding rise in income of 26%. Secondly, the U.S. also saw rapid expansion in the capital markets. Before the war began, the United States was a net debtor in international capital markets but following the war the United States emerged as one of the leading capital markets in the world. The U.S. skilfully managed German reparation issues in such a way that the end result was New York overtaking London as the money capital of the world. "This was the first era where the U.S. became a leading international financer. The U.S. began investing substantial amounts internationally, particularly Latin America, thus. "taking on the role traditionally played by Britain and other European capital exporters.³"

Major Societal Changes

Society also underwent Serious. Disruptions in both living standards and transportation. Families migrated to jobs in the manufacturing belt and used their new wealth on indoor plumbing, electricity, and modern appliances. Similarly, Americans adopted new transportation modes. Automobiles exploded--by 1925, more than 25% of American families owned a car. By the end of the 1920s, Americans owned 26 million cars. The airline industry also launched after WWI. By 1930, the U.S. had 6,000 commercial customers⁴--with over 170,000 commercial passengers in a year by 1940.

Similarities to Today

The current environment has striking similarities to the period after WWI. Like the period after WWI, we are witnessing the occurrence of the same 5 Disruptions: Diplomatic, Technology, Military, Economics and Societal. A new Great Power Competition has created systematic disruption to the international environment. Rising States (China, Iran, India, etc.) are challenging to supersede the U.S. and Western order. One significant difference from the post WWI GPC though, is the emergence of non-States. Al Qaeda and ISIS are centers of power that are looking to create their own dominant areas against more traditional power sources. The U.S. will need to manage the new Disruptions carefully to maintain its preferred Western Oriented World Order.

4 Queviv (2016). "This is what it was like to fly in the 1930s"

² U.S. Census Bureau. "Bicentennial Edition: Historical Statistics of the United States, Colonial Times to 1970," P 232.

³ Alibar, R (2020). Why did the United States Evolve from the Largest International Creditor in 1980 to the Largest International Debtor in 1990?

Diplomatic Efforts for The New Global Power Competition

The Western world order, if not dead, is severely challenged. Diplomatic efforts in many regions are creating Disruptions in the U.S. led World Order. The Chinese, for example, have Used their Belt and Road Initiative to build ports, energy infrastructure and other initiatives for developing countries (and even some NATO countries). The 'BRICS' nations are directly challenging U.S. and Western interests by creating structures and agreements that impact energy supplies around the globe. These are not the only challenges though. In the Middle East, Iran is surging—supporting numerous. militias across Syria, Iraq, Lebanon, Gaza, and Yemen to instigate actions in Israel, Iraq, and the Red Sea.

Major Technology Innovations

Major breakthroughs in data, algorithms and robotics are creating the 'Fourth Industrial Revolution⁵'—a Disruption to both manufacturing and labor. One of the early focU.S.es of the Fourth Industrial Revolution is workforce transformation through advances in Artificial Intelligence and Robotics. It remains to be seen how the loss of manufacturing jobs will impact developing countries. Other Disruptive technologies include advances in hypersonic vehicles, commercial space, and genetics. This is an emerging disruption and portends extended Disruptions in Military, Economics and Society.

The U.S. as a Military Power

Military power is again a significant Disruption in the new era after arguably being dormant after the fall of the former Soviet Union. Forces around the world are growing in lethality and parity. The cost of military power has significantly dropped with the advent of cheap, but lethal weapons. The Iraqi resistance, Houthi rebels, Libyan warlords, and even Ukraine are examples of limited resource organizations able to challenge militarily superior foes. For advanced militaries, a contest where \$20,000 UAVs are challenging million-dollar systems quickly creates substantial asymmetric costs that are hard to sustain. Meanwhile, peer and near Peer States are building 'new' forces designed to challenge U.S. hegemony. China, for example is building a large naval fleet—and signalling intent to Use this power. The Chinese Navy has engaged in numerous. aggressive engagements with its neighbouring countries as it attempts to support its preferred maritime borders. The Indo-China region is not the only region where non-U.S. hegemonies are attempting to establish dominance. One can argue, with the ongoing attacks on U.S. positions in the Middle East, that the U.S. position is no longer dominant in that region.

The U.S. as A Dominant Economic Power

The U.S. debt issues are a significant issue and have allowed challenges from other economic centers. Major economic centers within the Sino influence (Shanghai and Singapore) have emerged as significant rivals to New York City. The potential Disruptions from the rise of the Sino economic centers are numerous, but the two critical issues are the push to replace the dollar with a 'basket fund' and possible economic crashes in both China and the U.S. The

⁵ The World Economic Forum defines the emerging era as "characterized by a fusion of technologies that is blurring the lines between the physical, digital, and biological spheres" (World Economic Forum (2016)).

BRIC efforts to replace the dollar with various. currency options – from 'baskets' to bitcoins—would Disrupt international trade and significantly upset critical markets—such as oil. In addition, the looming debt from both U.S. and Chinese governments are significant Disruptions as well. Collapse from either country would certainly imperil global prosperity—with many suggesting a return to the 1930s style struggles.

Major Societal Changes

The Fifth Disruption is the major societal changes we are experiencing in our culture. A hundred years ago, Americans held similar worldviews. That is no longer the case. Where Americans once strongly held faith positions, the majority is now better classified as secular. Barna once observed, there are very few differences between Christians and non-Christians culturally⁶. Both groups have similar divorce rates, bankruptcies, and debt levels. The result is that the United States is no longer united the way it was after WWI. The other major Societal Disruption is the mass migration currently underway across the southern borders. Millions of people around the world have entered the U.S. illegally. Many have no skills, questionable medical protections, and no means to provide for their subsistence. Migrants are being hosted in Various. facilities and provided food and other support at a tremendous. cost to the states and cities. Beyond that, known terrorists are Using the porous border to enter the country.

Managing the New Global Power Competition

Make no mistake, the U.S. is well positioned to be successful in this emerging Great Power competition. However, it does require strategic decision making to leverage the 5 Disruptions in a systematic manner. Strategists should recognize that success in a Great Power competition must account for multiple levels of competition. Secondary and tertiary effects can often have more of a disruption than the intended primary (desired) effect. Strategies such as 'tit for tat' and Diversification are still salient but much more effective in a single or Uni-polar environment. In contrast, Great Power Competition, is a multi-polar system in which multiple States compete against each other for primacy. The utility of a strategy in Great Power competition is reflected in primary/direct results but also in the extended effects across multiple indirect effects.

Baohui wrote "This conception of strategic competition suggests that states are not merely content with a balance of power with other states, but rather that they seek advantages over others."⁷ Great-power competition (GPC) is a comprehensive contest for supremacy in a region or domain across all potential participants in the international system. Powers can make alliances, break alliances, act alone, etc. The contest varies in intensity over time and space but remains a persistent aspect of the international system."⁸ Lynch noted the essence of the condition as "Great Powers display three conspicuous. attributes: capabilities, behaviour, and status. attribution by other states in the international system."⁹ In a post-Westphalian conceptualization, it can be stated that states compete to accrue power relative to their competitors. In a Hobbesian formulation, without a 'Leviathan' to enforce relative Status., stronger states accrue more Status., allowing them to create systematically

⁶ Barna, G. (2004). "Faith has a Limited Effect on Most People's Behaviour."

⁷ Baohui, Z (2023). Polarity and Strategic Competition: A structural Explanation of Renewed Great Power Rivalry

⁸ DiCicco, J and Onea, T (2023). "Great-Power Competition. International Studies Association."

⁹ Lynch T. (2020). "Major Findings on Contemporary Great Power Competition."

advantageous. environments While not a pure zero-sum game, advantages accrue to the stronger nations—allowing for accumulation and a true benefit to the more powerful states. However, the focus. on State actors is a weakness of the Westphalian formulation in the new system. Utilizing States as the fulcrum of the system is an incomplete formulation of the system—namely the continuing resilience of alliances and ability of non-state actors to compete in various. venues. In the Great Power formulation, it would naturally flow that stronger countries have greater utility to compete as individual entities or at least in shifting (i.e. situational) alliances. Rather, we see one enduring alliance—the U.S. and European partnership that has existed and even strengthened over ~75 years across military, cultural, and economic venues. Certainly, in a Westphalian formulation of the Soviet Union was an opportunity to shift alliances, but the U.S. has maintained its NATO and EU alliances. The focus. on the State also does not account for non-State actors that wield significant power such as ISIS or Non-Governmental Organizations such as the WTO. The U.S. must have a framework that accounts for both States and non-States.

Disruptions are better thought of as systematic influencers or shocks that cause new patterns to emerge. Laplace said, "We may regard the present state of the universe as the effect of its past and the cause of its future."¹⁰ (Cencini, Cecconi and Vulpaini, 2009) Recognizing that Chaos is not the absence of order but rather a reflection that dynamics are in place that allow for small inputs to have significant impacts. The essence of a Chaos Theory, whether it is a system of atoms or states follows the basic Lorenz rules:

Lorenz demonstrated three significant attributes of every quantum system. First, his diagram showed that complex systems are sensitive to initial conditions (input influences output.) Second, while individual outcomes or events cannot be predicted with certainty, all outcomes would fall within predictable parameters. From these first two points, a third important attribute became clear, namely, that while the outcome of one event may not be precisely knowable, complex systems will, over time, self– organize into surprisingly stable, and even beautiful, patterns.¹¹

While the Lorenz discussion is focused on physics, the last point—complex systems will selforganize is evident. Political organizations do organize around self-interests. As those interests evolve, the utilities of their positions evolve as well. That is how you can have Vietnam and the U.S. with an alliance despite the Vietnam War.

Expanding Great Power competition to account for alliances and non-state actors leads to consideration of the civilizational formulation as expressed by Huntington. Huntington formulated the underlying international struggle as between civilizations. In the Huntington theory, civilizations consist of core states with other states forming a 'ring' around the core state.¹² In this view, civilizations without a core state leave a void for non-State actors to fill—see ISIS/Al Qaeda. Extending the formulation, civilizations compete against rivals in both state (Westphalian formulation) and non-State (civilization) organizations for resources. The Huntington model provides a more suitable framework to account for non-State actors and their role in the international environment. In essence, the Huntington formulation is that a Great Power competition is a civilizational struggle with core states and dominant organizations competing across arenas for advantages.

11 Oxford Physics Lectures, 1963

¹⁰ Cencini, Massimo & Cecconi, Fabio & Vulpiani, Angelo. (2009). Chaos. From simple models to complex systems

¹² Huntington, S. (1993). "The Clash of Civilizations?". p 31

This distinction is important as it accounts for the enduring Western alliance in the Great Power formulation. It also accounts for shifting Islamic civilizational power bases where you have States (Iran, Saudi Arabia) and non-State (Al Qaeda/ISIS) actors. Hughes correlated the Huntington Civilizational Theory influence strategies across Strategic or Great Power competitions: "Each course of action is evaluated using the formulation developed previoU.S.ly—namely as a function of relationship and issue (F=V(Rel) V(Iss) where: V(rel) = f (cultural ties, religion commonality, form of government, economic ties) V(Iss)=f (Benefit - Cost)*p(success)¹³ (Hughes, 2008)

What is required in the new Global Competition

A number of paradigms have to be restructured for the new Global Power Competition. Viewing the competition as a contest between two states is not sufficient in this era of Global Power Competition. States and non-States have allies that blunt desired impacts of actions. The effort to end Houthi attacks on the Red Sea shipping is an example of where other members of the Islamic Civilization are blunting the punishments and in many cases supplementing their capabilities. Recognizing that civilizations will often defend itself against attack, strategy needs to move away from a linear strategy towards a Chaos Theory approach. Utilizing the 5 Disruptions to design appropriate Course of Action responses encourages a Chaos Theory style by using the disruptions as attractors to promote desired movement in the system. Further, this approach facilitates a "Whole of Government" response in that the disruptions cut across governmental responsibilities and requires pulling many layers of government power. Finally, a sustained review and examination of the environment needs to occur. The U.S. Navy, in the Great Fleet exercises maintained an annual exercise that provided the ability to examine emerging concepts, technology and strategies against other Great Powers for the entire period between the World Wars.

Adopting a Civilizational Approach

Linking solutions to Civilizations rather than a State allows for examining tertiary responses that are not available with a State v State approach. This approach underpinned the GWOT where a State harbouring a non-state could not escape retributions by claiming deniability. Afghanistan could not claim that they were innocent, and the 9-11 attacks were not of their purview. The Bush (43) formulation is stated as 'You are either with us or against us.'¹⁴ This approach facilitates indirect COAs that create utilities to the core state while also tailoring the strategies to meet preferences of the U.S.

Adopt a Chaos Informed Approach

Walz, Baohui, Lynch and many other posit that Strategic Competition rises from a desire to seek advantages over others. Civilizations seek to accrue more power within the system at the expense of their rivals. They accrue power by gaining advantages—collecting resources, denying opponents resources or at least fettered access to resources. Advantages are examples of Utility. The competition is dynamic and can be best described as loosely organized around attractors that can oscillate or evolve as the system changes. These

¹³ Hughes, A. (2008). Game Theory as a Decision-Making Tool for Leaders: An Evaluation Using Huntington's Clash of Civilization Model.

¹⁴ Bush, G.W. (2001). "You are either with us or against us."

attractors can be varied—domestic turbulence, economics, military power, etc. Chaos theory holds that the role of leadership is to "hold organizations in a state of dynamic turmoil around the strange attractor between ossification and randomness."¹⁵ Organizations in such a state can respond quickly to changing environments and conditions in a focused and rational way. Growth is a dynamic process triggered by the successful response to the changing environment.¹⁶ The dynamic turmoil is induced by strategic disruptions—occurrences that cause the system to move from a state of ossification towards randomness. While some changes are slowly and incrementally changing, other changes are caused by major disruptions. The environment after World War I suffered tremendous. disruptions to the fabric of the system.

In a Global Power contest, Utility in international relations is defined as a function of salience and time [U=f(S*T)]. Salience is "interest, issue, importance."¹⁷ Huntington defines saliency for a State across 5 dimensions: Geopolitical, Cultural, Economic Military and Ethnic."¹⁸ The salience calculation in the Utility formula is dependent on the issue and its importance¹⁹ and should not be viewed as discrete utilities but rather a continuum depending on resolution method pursued.

Whole of Government Approach

Winning the Great Power competition requires a synergetic approach across the spectrum of government activities. It will not be simply a military contest, but as we are seeing, we must compete across the whole spectrum-diplomatically, technology, military, economics and societal. Utilizing the 5 Disruptions encourages a "Whole of Government" effort to evaluate Great Power competition and provide wide ranging strategies that provide winning utilizing all the tools of State power. Clausewitz first formulated this approach in his observation that "war is a continuation of politics by other means."²⁰ Morgenthau's DIME approach modernizes Clausewitz's formulation by more overtly emphasizing the tools a State possesses in achieving their objectives. Interestingly enough, we are seeing the Chinese government utilizing this approach across the 5 Disruptions with initiatives in all five areas. After WWI, the U.S. Navy provided an illustration of a "Whole of Government" approach in their longitudinal series of exercises known collectively as the Fleet Exercises. The fleet exercises were a series of annual events that evaluated both technology and operational concepts. The exercises occurred in the Caribbean and Pacific Waters centered around Panama. The Navy used these exercises to guide industrial changes, official U.S. Government policies and more importantly, examine the optimum ways to employ these new capabilities. The U.S. Navy Fleet exercises created a 'laboratory' for the Navy to explore the future. These exercises helped examine technological changes and how they would impact future operations but also delved into employment tactics to optimize the new capabilities. For example, interwar gaming showed that "carrier flight decks would often be knocked out. When the gaming began, it was assumed that such damage would have to be repaired in a drydock; a carrier once knocked out was out of action for an entire campaign. The U.S. Navy uniquely sought quickly repairable flight decks, which made it possible for U.S. carriers to

17 Ibid

¹⁵ Burns, J. (2002). Chaos theory and leadership studies: Exploring uncharted seas." p. 42

¹⁶ Hughes, A. (2006). Game Theory as a Decision-Making Tool for Leaders: An Evaluation Using Huntington's Clash of Civilization Model.

¹⁸ Huntington, S. (1993). "The Clash of Civilizations?". p 31

Hughes, A. (2006). Game Theory as a Decision-Making Tool for Leaders: An Evaluation Using Huntington's Clash of Civilization Model.
Miyata, F. (2021). The Grand Strategy of Carl Von Clausewitz.

keep fighting after suffering battle damage."²¹ This innovation allowed more U.S. Carriers in commission throughout World War II—a major advantage over the Japanese carriers. Other innovations improved the operations of the fleet—the Carrier Battle Group was designed during this period for example.

Adapting this approach across the U.S. government will allow examination of a wider set of strategies and provide opportunities to coordinate across the federal government. Examining strategies for primary, secondary, and tertiary impacts will allow the U.S. to compete more effectively against the disparate civilizations competing to supplant the U.S. dominance. Where leaders may be reluctant to use military force, other centers of gravity provide optimum leverage points. Realizing that small actions may blossom into major effects will make U.S. strategies more effective.

Major U.S. Experimentation Efforts

The parallel for today's environment is that we are entering a period of rapid changes that will drive significant changes in the 5 Disruptions. The insights from the Fleet exercises were often 'ordinary' – like expected attrition of pilots in combat situations — but these insights provided the basis of victory in WWII. The value was not the individual insights a particular exercise yielded, but rather the value in looking at a problem and then drawing the appropriate lessons. If the Fleet Exercises had only occurred once, significant insights gained would never have been realized. Technology, concepts of operations and strategies were not captured in fossilized amber but rather became an input into the next Fleet Exercise where existing approaches could be assessed against improving technology and new strategies. Likewise, as the 5 Disruptions continue to emerge, current and future U.S. Government agencies must adapt a modern Fleet Exercise approach that allows representatives of the various. tools of power to examine technologies, concepts, tools and other Great Powers in a systematic approach. The lessons learned must be captured and used as the basis for the next round of games. A one off, strategy seminar will be insufficient because, as we saw with the fleet exercises, the world is dynamic--and so must be our strategies.

To be clear, there are individual agencies examining future scenarios, technologies, and operating paradigms but the efforts are not coordinated and/or lack transparency. Many of the 'looks' are single events as well. Imagine an event held twenty years ago to create a strategy for 2027—that event would have missed the rollout of the iphone (released in 2007). An appropriate agency, such as the National Security Council, needs to be responsible for the grand strategy and adjust accordingly as technology, economic conditions, and other balances of strategy change.

Conclusion

The period after WWI saw U.S. leadership make a series of decisions that shaped the next ~100 years. It would be prudent for the current U.S. leadership to look at this period and emulate many of the successful approaches that worked well. As the 5 Disruptions emerged and changed the world, U.S. leadership navigated the many changes that occurred during their watch. While their efforts did not prevent WWII, their preparations and strategies set the conditions for success in WWII and in the aftermath.

Specifically, for the scope of this paper, we briefly looked at five areas of disruption that were transformational for the rise of the United States—Technology, Military, Diplomacy, Economic and Societal changes. Each of those areas hastened the transition of Power from

²¹ Friedman, N (2017). Winning a future war: war gaming and victory in the Pacific war.

the established Great Powers to emerging powers such as the United States. The 5 Disruptions and the inability of the pre-WWI great powers to manage their positions in the international environment resulted in a change in global leadership. Looking at post WWI changes and comparing them to the environment today post Global War on Terror and Ukraine will illuminate a path forward for the U.S.

Make no mistake, the U.S. is well positioned to be successful in this emerging Great Power competition. However, it does require the kind of far-sighted strategic decision making that understands the 5 Disruptions are not discrete actions but rather part of a systematic disruption of the international environment. The parallels to the period between WWI and WWII are striking and provide a blueprint for approaching the uncertainty that has arrived. Eventually the aftermath of WWI turned into WWII, an even more destructive and restructuring conflict. It is critical that we find a path averting WWIII by winning the Great Power Competition.

References

- Aliber, R (2020). Why did the United States Evolve from the Largest International Creditor in 1980 to the Largest International Debtor in 1990? Atlantic Economic Journal. https://link.springer.com/article/10.1007/s11293-020-09695-x
- Baohui, Z (2023). Polarity and Strategic Competition: A structural Explanation of Renewed Great Power Rivalry. The Chinese Journal of International Politics, Volume 16, Issue 4, Winter 2023, Pages 383-405. https://academic.oup.com/cjip/article/16/4/383/7313442?login=true
- Barna, G. (2004). Faith has a Limited Effect on Most People's Behavior. The Barna Group. Faith Has a Limited Effect on Most People's Behavior - Barna Group
- Barnett, T. (2003) "The Pentagon's New Map." Esquire. 1 March 2003. Available online: http://www.esquire.com/features/ESQ0303-MAR_WARPRIMER
- Burns, J. (2002). "Chaos Theory and Leadership Studies: Exploring Uncharted Seas." Journal of Leadership & Organizational Studies; Flint Vol. 9, Iss. 2, (Fall 2002): 42-56.
- Bush, G (2001). You are either with us or against us" CNN Interview. CNN.com 'You are either with us or against us.' November 6, 2001
- Cencini, Massimo & Cecconi, Fabio & Vulpiani, Angelo. (2009). Chaos. From simple models to complex systems. https://www.researchgate.net/publication/265716692_Chaos_From_simple_models_t o_complex_systems
- DiCicco, J and Onea, T (2023). Great-Power Competition. International Studies Association, Oxford. https://doi.org/10.1093/acrefore/9780190846626.013.756
- Friedman, N (2017). Winning a future war: war gaming and victory in the Pacific war. Naval History and Heritage Command. Winning a Future War: War Gaming and Victory in the Pacific War (navy.mil)
- Hughes, A. (2008). Game Theory as a Decision-Making Tool for Leaders: An Evaluation Using Huntington's Clash of Civilization Model. https://www.proquest.com/docview/304820254?_oafollow=false&accountid=12085& pq-origsite=summon&sourcetype=Dissertations%20&%20Theses
- Huntington, S. (1993). "The Clash of Civilizations?". *Foreign Affairs*. **72** (3): 22–49. doi:10.2307/20045621. ISSN 0015-7120. JSTOR 20045621.
- Iowa State Historical Society (1928). A chicken for Every Pot. "A Chicken for Every Pot" Political Ad, October 30, 1928, | State Historical Society of Iowa
- Lynch T. (2020). "Major Findings on Contemporary Great Power Competition." NDU Press. <u>Major Findings on Contemporary Great Power Competition > National Defense</u> <u>University Press > News Article View (ndu.edu)</u>

- Miyata, F. (2021). The Grand Strategy of Carl Von Clausewitz. The War Room, Online Journal. THE GRAND STRATEGY OF CARL VON CLAUSEWITZ - War Room -U.S. Army War College
- O'Rourke, R. (2020), "Renewed Great Power Competition: Implications for Defense: Issues for Congress," *Congressional Research Service*, https://crsreports.congress.gov/product/pdf/R/R43838/76, p. 3.
- Oxford Physics Department. (1963). The Lorenz Equations. Lect6.dvi (ox.ac.uk)
- Taleb, Nassim Nicholas. 2007. Fooled by Randomness. Harlow, England: Penguin Books.
- U.S. Census. Bureau. 2020 U.S. Census. New Estimates on America's Families and Living Arrangements (census.gov)
- U.S. Census. Bureau. (2020). Adults Living at Home. A Third of Young Adults Live with Their Parents (census.gov)
- U.S. Census. Bureau. "Bicentennial Edition: Historical Statistics of the United States, Colonial Times to 1970," Page 232. <u>https://www.censU.S..gov/library/publications/1975/compendia/hist_stats_colonial-1970.html</u>
- World Economic Forum (2016). "The Fourth Industrial Revolution: What it means, How to respond." <u>https://www.weforum.org/agenda/2016/01/the-fourth-industrial-revolution-what-it-means-and-how-to-respond/</u>

Queviv (2016). "This is what it was like to fly in the 1930s". Special for U.S.A TODAY. https://www.U.S.atoday.com/story/travel/roadwarriorvoices/2016/01/10/this-is-whatit-was-like-to-fly-in-the-1930s/83283086/#:~:text=The% 20birth% 20of% 20a% 20global% 20sensation.% 20JU. S.t% 206% 2C000,according% 20to% 20Smithsonian% 20National% 20Air% 20and% 20 Space% 20MU.S.eum.