

Tickling the Dragon's Tail: The Destabilizing Effects of an Irregular Warfare Critical Mass

A Monograph

by

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Abstract

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Over time a metaphorical critical mass, constructed of global irregular warfare actors, state and non-state, has developed. The core is now active and exists within an enabling contemporary environmental structure. State warfare hegemony has decreased conventional competition and increased asymmetrical strategies. The result of this has been the emergence of irregular warfare as a prominent strategy and a self-propagating chain reaction of irregular warfare activity. This activity is releasing increasingly dangerous levels of destabilizing effect, which is less visible, more difficult to discern, and slower to manifest, yet has a devastating potential yield.

This paper reviews irregular warfare theory and history, and describes the contemporary operational paradigm. It analyzes the effect of cumulative irregular warfare activity and discusses prescriptive approaches to the problem. It concludes that, if stability is an objective, then counter-irregular warfare must be holistically undertaken with strategies to reduce conventional warfare competition. Irregular warfare must not be casually used as a convenient outlet for competition below the threshold of war, the potential damage of unlimited irregular warfare will be significant and lasting.

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N.B.M.

Acronyms

ASSF	Afghan Special Security Forces
AUMF	Authorized Use of Military Force
CIA	Central Intelligence Agency
GRU	<i>Glavnoye Razvedyvatelnoye Upravleniye</i> Soviet Military Intelligence
GWOT	Global War on Terror
ISIL	Islamic State of Iraq and Levant
ISIS	Islamic State of Iraq and Syria
IRA	Irish Republican Army
IRGC	Islamic Revolutionary Guard Corps
IVEO	Islamist Violent Extremist Organizations
IW	Irregular Warfare
KGB	<i>Komitet Gosudarstvennoy Bezopasnosti</i> Soviet Security and Intelligence Service
MACV-SOG	Military Assistance Command- Vietnam Studies and Observation Group
MARSOC	Marine Special Operations Command
OSS	Office of Strategic Services
SOF	Special Operations Forces
TCP	Theater Campaign Plan
TSC	Theater Security Cooperation
US	United States
USASOC	United States Army Special Operations Command
USSOCOM	United States Special Operations Command
USSR	Union of Soviet Socialist Republics

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Introduction

‘Tickling the dragon’s tail’ is a euphemism attributed to physicist Richard Feynman, referring to the practice in nuclear experimentation of teasing a plutonium core towards critical mass and chain reaction. One such core was nicknamed the Demon Core for its involvement in accidents that killed the scientists who were experimenting with it.¹ In this monograph, the Demon Core is presented as a metaphor for the idea that the ongoing development of an irregular warfare (IW) critical mass will produce such an uncontrollable chain reaction of disruption and instability that peace and security will be adversely affected to such a degree that the international order and global status quo could be irrevocably changed. The purpose of this monograph is to research questions related to IW power diffusion, and what might be the effects of an IW critical reaction.

The Demon Core was a subcritical mass of nuclear fissile material used by the United States (US) to develop nuclear weapons during the Manhattan Project. The nuclear scientists used the uranium core to understand when and how a subcritical mass would reach criticality. The scientists would impact the core by adjusting the structural and environmental variables around the core, including fuel, shape, density, and temperature. In addition, nuclear scientists would learn to control the reactions by introducing neutron-absorbent control rods. The most important variable factor in the experiments was the development and use of neutron reflectors. The reflective material would bounce neutrons back at the core, rapidly increasing criticality. On two occasions, scientists accidentally added enough reflective material that a supercritical fission chain reaction was produced. In both cases, the scientists were able to remove the reflective material, stopping the chain reaction.

Unfortunately, in the process of removing the reflectors, the scientists were irradiated with significant amounts of gamma radiation, which resulted in their slow and agonizing deaths.

¹ Alex Wellerstein, “The Demon Core and the Strange Death of Louis Slotin”, *The New Yorker* (May 21, 2016); Harry Lusting and Kirsten Shepherd-Barr, “Science as Theater” *American Scientist*, (November – December 2002).

The gamma particles penetrated the cells of the scientists, producing an ionizing effect which destroyed cell structure and cellular function.² The cumulative cellular disruption caused by the radiation affected their biological system so significantly that their bodies could not survive.

Often, these experiments—‘tickling the dragon’s tail’—were done by the scientists as a show for their colleagues, demonstrating their ability to control the reaction. On one occasion a scientist using a screwdriver as a lever to control the top cap of a spherical reflector dropped the screwdriver. The cap fell, completing the sphere and causing the core to go super critical.³ The scientists had become so complacent about the risks they took, and in their ability to control the reaction, that they were surprised when they lost control, and were killed as a result.⁴



Figure 1. Slotin Accident Mockup 11. US Department of Energy. Los Alamos National Laboratory. *LANL History in Images.*, Los Alamos National Security, LLC, Los Alamos: NM, 2011.

This concept of ‘tickling the dragon’s tail’, taken from research on nuclear reactions, was chosen as a metaphor for irregular warfare because the overconfident scientists understood the

² Chuck Hansen, *US Nuclear Weapons: The Secret History* (New York, NY: Orion Books, 1988), 11-27.

³ Cynthia Kelley, ed., *The Manhattan Project* (New York, NY: Black Dog and Leventhal Publishers, 2007), 436-438.

⁴ Sarah Bridger, *Scientists at War: The Ethics of Cold War Weapons Research* (Cambridge, MA: Harvard University Press, 2015), 1-30.

danger of their experiments, yet routinely teased the core towards critical mass. The theory presented in this monograph is predicated on the idea that a ‘Demon Core’ IW mass exists. This mass is made up of all actors who have agency in IW, including state and non-state organizations. These organizations can be, but are not limited to, criminal organizations, special operations units, paramilitary units, terrorist organizations, and cyber or information organizations. This core mass of actors has developed over a long stretch of history as the environment has become increasingly hospitable to their activities. To continue the metaphor, each trained IW actor can be likened to a dangerous fissile Uranium 235 molecule. These trained, equipped, motivated, and organized actors are the enriched elements, capable of violence, that make up the IW core.

This subcritical mass of IW actors is enabled by environmental structural factors that are hospitable to IW. Basic structural factors include a significant increase in the global population. With increased population comes increased competition and cooperation for global resources. The resultant effect of the global economy is a more complex and interdependent social and economic system.⁵ The next environmental structural factor is the manner with which the global connectivity of the information age has enabled the progress of the global population towards achieving greater freedom and self-determination.⁶ What this means is that there is now a larger global population of people, who, if aggrieved, can more effectively communicate and organize. A third significant factor is the rise of non-state actors’ capacity and capability as globalization re-orders the international system.⁷ In sum, there is an exponentially growing population of aggrieved people, with a desire to change their condition, and who have the ability to communicate, organize and conduct IW. A final environmental structural factor is the rise of state

⁵ Yanee Bar-Yam, *Making Things Work: Solving Complex Problems in a Complex World* (Cambridge, MA: Knowledge Press, 2004), 61-62.

⁶ Michael N. Schmitt and Andru E. Wall, *The International Law of Unconventional Statecraft* (Cambridge, MA: Presidents and Fellows of Harvard College, 2014), 371.

⁷ Chris Brown and Kirsten Ainley, *Understanding International Relations* (London, UK: Palgrave Macmillan, 2009), 177-191.

conventional and nuclear warfare hegemony, such as the United States, which has decreased the ability for other states to compete through conventional war. The result of this factor has been the rise of the asymmetric strategies of their adversaries, which often includes the significant use of IW.⁸

In addition to these structural factors are additive IW reflective lenses, which this paper argues are bringing the subcritical IW core towards critical mass. These reflective lenses include IW promotion, proliferation, and promulgation. Promotion is the extensive use of IW by many actors, state and non-state, which has normalized IW as acceptable and necessary. Proliferation is the creation, growth, or propagation of more IW actors by other IW actors. Promotion and proliferation have created promulgation. Promulgation is communicating, advertising, or making IW widely known. Promulgation has created a ‘plunging’ effect, where as an actor demonstrates its capabilities, their adversaries mimic and develop their own similar capabilities, plunging the entire system forward to a higher level of development.⁹ Returning to the metaphor, the increased development of state and non-state IW capacity and capability has had a significant neutron reflector-like effect on the sub-critical mass of IW actors. The resultant effect has been a self-propagating chain reaction of IW activity.

A significant aspect to the development of an IW critical mass is a control problem related to the chain reaction. The control problem is metaphorically similar to dropping the screwdriver and allowing the nuclear reaction to uncontrollably run away. The proliferation of state IW has diffused IW capacity and capability over to an increasingly larger percentage of the global population. Conversely, the ability to make nuclear or large scale conventional war is held by a relatively small percentage of the global population, such that this small community can

⁸ Andrew Mack, “Why Big Nations Lose Small Wars: The Politics of Asymmetric Conflict,” *World Politics*, Vol. 27, No. 2 (January 1975): 175-200.

⁹ Leo J. Blanken and Jason J. Lepore, “Slowing Down to Keep the Lead in Military Technology,” *Defence and Peace Economics*, Vol. 22, Is. 3 (June 2011): 317-334.

escalate and de-escalate as they see fit, thus avoiding the exorbitant costs and risk from nuclear mutually assured destruction or large scale conventional war.¹⁰

However, the power to make irregular war has now diffused to such a large portion of the global population, including non-state actors, that no single or group of hegemony has sufficient ability to de-escalate IW conflicts. For example, despite an almost two-decade-long global war on terror and significant operational military success by the US military, the threat from Islamist Violent Extremist Organizations (IVEO) has only grown. In addition to the use of IW by non-state actors, states themselves are also using aggrieved populations to fight proxy wars in strategies against each other, as seen in recent actions by Russia in Europe. This state proliferation of IW has a further reflective effect on the IW critical mass.

This monograph argues that the ultimate effect of this IW critical mass will be similar to the effect that gamma radiation had on the scientists' bodies. The IW critical mass will produce so much friction in the complex geopolitical system that the system will lose the ability to stabilize or achieve homeostasis. Without homeostasis, or time periods of relative international peace and stability, the system will never settle long enough for significant structured positive progress to occur; this condition will result in global destabilization or conflict, a state of entropy. The cumulative effect of sustained global IW will have such a disruptive and destabilizing effect on global peace and security that the normative international system and global status quo could be threatened. It is possible that the resultant destruction from IW reaching critical mass could be as devastating as nuclear war. This destruction may take longer to manifest, may be more difficult to recognize, and, if it occurs, could be exponentially more difficult to stop.

To better understand the current phenomenon of IW, this paper first examines the historical and theoretical development of global IW. Next it reviews the current environmental structure that enables IW, and the paradigm of contemporary IW actors operating within the

¹⁰ Fred Kaplan, *The Wizards of Armageddon* (Stanford, CA: Stanford University Press, 1983), 340.

environment. The subsequent section looks at the IW reflective lenses, which are pushing IW into a critical state, and the negative effect this reaction will have on the environment. The final section reviews prescriptive approaches that might decrease the danger from an IW critical mass.

Development of an Irregular Warfare Core Mass

In order to understand the critical mass, the reflective lenses, and the effect of the reaction, it is first necessary to describe the subcritical core of IW actors. The following section will describe the historical development of IW, incorporating relevant theories and doctrine. It will show the progression of IW as a phenomenon from an unstructured social tool into a highly integrated military strategy of state and non-state actors. The section will continue with a description of the contemporary paradigm of state and non-state IW, and will finish with a description of the environmental factors, including conventional hegemony, globalization, population, and information, which have contributed to the problem. This section makes the argument that a sub-critical mass of IW actors not only exists, but is active globally.

Irregular Warfare Theory

Irregular warfare goes by many names; hybrid, unconventional, special, political, et cetera, and ad nauseam. What is consistent throughout the multitude of names and definitions is the underlying nature of the warfare. Prominent military theorist Carl von Clausewitz's widely accepted thesis is that war is an act of force to compel the enemy.¹¹ This can be done by disarming or destroying the enemy, occupying land, breaking their will, or increasing their suffering to a point that they can no longer resist.¹² In US military doctrine, this idea is defined as the two fundamental strategies by which war can be won; annihilation/attrition and erosion.¹³

¹¹ Carl Von Clausewitz, *On War*, ed. and trans. Michael Howard, and Peter Paret (Princeton, NJ: Princeton University Press, 1976), 75.

¹² *Ibid*, 75-93.

¹³ US Department of Defense, Joint Staff, *Joint Publication 1 (JP1) Doctrine for the Armed Forces of the United States* (Washington, DC: Government Printing Office, 2017), I4. Annihilation or attrition is characterized as making the enemy helpless to resist, by physically destroying his military

Strategies of annihilation/attrition are primarily used when the sides in a conflict are roughly equally powerful. When an asymmetry exists between combatants, then disarming or destroying a more powerful enemy through direct confrontation—annihilation/attrition—is not a viable strategy, and instead, erosion is likely to be the selected strategy.

The erosion strategy focuses on destroying a more powerful adversary's will or ability to fight, rather than on defeating the adversary's forces directly. For these less-powerful forces, the goal is to avoid direct conventional action and instead change the conditions of the conflict.¹⁴ Because less-powerful forces need to combat their adversaries but avoid direct large-scale military confrontations, erosion strategies typically implement IW. Clausewitz recognized that war is “a continuation of political intercourse, carried on with other means.”¹⁵ He also understood and communicated that “in war many roads lead to success, and that they do not all involve the opponent's outright defeat.”¹⁶ One of these roads was a strategy of erosion, or as Clausewitz described it, to “wear down the enemy,,” which he defined as “using the duration of the war to bring about a gradual exhaustion of his physical and moral resistance.”¹⁷ The strategy of erosion is one that became a consistently utilized strategy of IW theorists, such as Mao and T.E. Lawrence, and has been solidified into US military doctrine.¹⁸ The strategy of erosion can be seen in multiple IW campaigns throughout history.

capabilities. Erosion is characterized as convincing the enemy that accepting terms will be less painful than continuing to aggress or resist.

¹⁴ Chalmers Johnson, *Revolutionary Change* (Stanford, CA: Stanford University Press, 1982), 1-5. The greater discussion of why people seek revolutionary change is not required for a study of revolutionary irregular warfare. Commonly the causes are attributed to man's desire for social change due to grievance, greed, inequality, or superiority. What is important is that revolutionary change is used to even the playing field, to change the dynamics of the conflict to further a militarily weak actor's goals or political ideology.

¹⁵ Clausewitz, *On War*, 87.

¹⁶ *Ibid*, 94.

¹⁷ *Ibid*, 93.

¹⁸ US Department of Defense, Joint Staff, *Joint Publication 1 (JP1) Doctrine for the Armed Forces of the United States* (Washington, DC: Government Printing Office, 2017), 14.

Irregular Warfare History

Pre-Cold War Era

From ancient times through to the premodern period and up until the 20th Century, IW was conducted primarily by non-state actors who organized mostly for social change.¹⁹ The relatively small amount of state-sponsored IW was limited in scope and scale.²⁰ Clausewitz describes irregular war in his time as a people's war of popular uprising used as a means for revolutionary political change.²¹ He noted that militias and armed civilians should not directly confront enemy main forces, but should nibble around the edges in a nebulous and elusive manner. Clausewitz believed that massing of any kind in concrete form would ensure that the enemy would crush the insurgent force.²²

The American Revolutionary war presents an example of what Clausewitz prescribed. From January through March 1777, Washington conducted *petite guerre* (small war) in what is now known as the Forage War.²³ Though Washington had little love for the militia, he did recognize the opportunity to harass and erode the British force. Washington dispersed some of his regulars to work with the militia, who attacked when able, killed British regulars, and disappeared back into the countryside. For three months the irregular force skirmished, ambushed, and swarmed the British, inflicting a significant impact on the material strength of the British force.²⁴ The Forage War played a significant contribution during a difficult period of the Revolution, and

¹⁹ John Arquilla ed., *From Troy to Entebbe: Special Operations in Ancient and Modern Times* (New York, NY: University Press of America, 1996).

²⁰ John Arquilla, *Insurgents, Raiders, and Bandits: How Masters of Irregular Warfare Have Shaped Our World* (Chicago, IL: Ivan R. Dee, 2011).

²¹ Clausewitz, *On War*, 479-483.

²² Ibid.

²³ David H. Fischer, *Washington's Crossing* (New York, NY: Oxford University Press, 2004), 346.

²⁴ Ibid, 346-362.

ultimately set conditions for American victory. From the war the American founders learned valuable lessons. These included recognizing the internal risks from irregular and revolutionary warfare, as they had conducted it themselves against their own formerly sovereign state. In response, they created constraints that limited the actions of the new American armed forces, in order to decrease the risk of a standing army turning against the republic. Over time this focus on law and oversight has evolved into a robust code of law with intricate detail constraining military and paramilitary action by the United States.²⁵

The United States was not the only actor to develop an appreciation for the utility of IW. An important historical example that occurred during Clausewitz's lifetime was the French experience against guerilla warfare on the Spanish Peninsula, from 1807-1814.²⁶ In 1807, Napoleon, in an attempt to stabilize the political situation on the Iberian Peninsula, took control over the corrupt Spanish government. Despite some conventional successes during his personal campaigns of 1808-1809 against Spanish regular formations, Napoleon considered the overall situation in Spain as an ulcer in the larger body of his wars. His forces were continually worn down by a popular Spanish insurrection. Napoleon's power was eroded by the Spanish 'second front.' The ruthless war waged by the Spanish guerillas established a precedent that grand armies such as Napoleon's could be challenged in indirect and irregular ways, and that such irregular challenges could meet with success.²⁷

Following Napoleon, the century between 1840 and 1940 was critical to laying the foundation for the development of a subcritical mass of irregular actors, and to building the initial structural factors that would later influence the mass towards criticality. IW during this period

²⁵ Andru E. Wall, *Demystifying the Title 10-Title 50 Debate: Distinguishing Military Operations, Intelligence Activities and Covert Action* (Cambridge, MA: Presidents and Fellows of Harvard College, 2011), 85-141.

²⁶ David G. Chandler, *The Campaigns of Napoleon* (New York, NY: The Macmillan Company, 1966), 593-660.

²⁷ Ibid.

was dominated by the theory and action of communist leaders, specifically Karl Marx, Vladimir Ilyich Lenin, and Mao Tse-Tung. Marx's argument for the use of violence during the socialist revolution was that, as economic changes forced social and political changes, the ruling elite would feel threatened and would resist the change, and this in turn would require the resistance to use violence.²⁸ Lenin similarly concluded that only violence would bring true change.²⁹ Mao Tse-Tung refined the ideas of Marxism and Leninism into a coherent theory of politics and military action. Perhaps most importantly, Mao laid down a clear plan for the strategy and tactics of guerilla warfare, which was to harness the power of rural peasant society to take control away from the dominant, powerful elites. Mao also voiced the idea of permanent revolution, that the continuous turmoil and social disruption from conflict would yield inevitable great progress.³⁰ Guerilla warfare was Mao's tool for perpetually extending the revolutionary conflict over time.³¹

Mao's IW model was divided into three phases: organization, guerrilla fighting, and war of movement. Because the guerrilla derives from and is supported by the population, it was critical for Mao to establish political goals and objectives that coincided with the aspirations and sympathy of the population.³² Mao intended guerilla units to attack with clandestine, covert, and overt small unit tactics, with the goal of surviving while destroying the enemy.³³ For Mao, political operations were as important as military operations. Political operations included sabotage, subversion, and assassination to trap the status quo government in a quagmire of hostile

²⁸ Leon Baradat, *Political Ideologies: Their Origins and Impact Fifth Edition* (New Jersey: Prentice Hall, 1994) 168-169.

²⁹ Ibid, 191.

³⁰ Ibid, 199, 220.

³¹ Mao Tse-Tung, *On Guerilla Warfare*, trans. Samuel Griffith II (Chicago, IL: University of Illinois Press, 2000) 41.

³² Ibid, 45.

³³ Ibid, 46.

population and coercive change.³⁴ As Johnson describes it, the goal is to “weaken the enemy through a protracted war of attrition.”³⁵ Once a guerilla war has reached the second or third phases of active combat, it is extremely difficult to defeat. Defeat becomes more difficult at later stages because the mass and momentum of the movement are proportionally larger.³⁶

The communist leaders did not just develop a political theory, but also developed a doctrine for action, which was then used in a series of revolutionary conflicts across the totality of the Asian continent. These actions included the Soviet revolutionary beginnings, which started with the October Revolution in 1917 and lasted through 1923.³⁷ In China, the 1927 Autumn Harvest Uprising began a series of revolutionary activities that would include the Long March in 1934, and culminated with the Chinese Communist Revolution, the solidification of Chairman Mao, and the founding of the Communist Peoples’ Republic of China in 1949.³⁸ Over this same time period, Western European militaries would begin to flirt with IW as an aspect of their overall strategy; this can be seen in the World War I experience of T.E. Lawrence in Arabia.

The Arab Revolt of 1916-1918 against the Ottoman Turks was an important event in early 20th Century IW. Lawrence, a British advisor to the Arabian tribesmen, described their effort not as an army with banners attacking a massed Turkish force, but as “an influence, an idea, a thing intangible, invulnerable, without front or back, drifting about like a gas.”³⁹ Lawrence understood that the irregular force had an advantage in its ability to move, hide, and attack only

³⁴ William Andrews, *The Village War: Vietnamese Communist Revolutionary Activities in Dinh Tuong Province 1960-1964* (Columbia, MO: University of Missouri Press, 1973), ix-xi.

³⁵ Chalmers Johnson, *Revolutionary Change* (Stanford, CA: Stanford University Press, 1982), 150. While Johnson uses the term ‘attrition’, his concepts are related to the doctrinal terms of erosion, and fit Clausewitz’s definition of erosion.

³⁶ *Ibid*, 150.

³⁷ James White, *The Russian Revolution 1917-1921: A Short History* (London, UK: Edward Arnold, 1994), 151-234.

³⁸ Stanley Karnow, *Mao and China: From Revolution to Revolution* (New York, NY: Viking Press, 1972), 3-20.

³⁹ T.E. Lawrence, *Seven Pillars of Wisdom: A Triumph* (New York, NY: Doubleday, 1926), 192.

when conditions were beneficial. They attacked Turkish *matériel*, understanding that the Turks valued it more than they valued the lives of their soldiers. Lawrence's own force valued life over replaceable *matériels*, so only engaged under the right conditions. Lawrence's IW thinking and writing spanned tactics, operations, and strategy. In his book describing this conflict, *The Seven Pillars of Wisdom*, Lawrence describes how he cognitively linked the Arab's tactical actions to strategic objectives. "Final victory seemed certain, if the war lasted long enough for us to work it out."⁴⁰

Lawrence's comments show the same operational mindset that Mao described as perpetual conflict. The overarching idea for both was that a protracted war would allow the asymmetric adversary sufficient time to erode a stronger adversary's combat power and will. The example of T.E. Lawrence and his successful Arab Revolt proved that, when properly applied, an irregular force could use its asymmetric advantages and gain decisive results against a conventional adversary.⁴¹ The lessons learned from that campaign have had a lasting impact on how IW is understood.

While Lawrence's efforts were a small factor in World War I, as an element of state strategy IW began to truly emerge during another great conflict of the 20th Century, World War II. The United States viewed the war as such an existential threat that few limitations or constraints were placed on forces if the actions were in pursuit of victory. This lack of constraints meant that IW became a key part of the war strategy. For the European theatre, US political and military leaders developed the Office of Strategic Services (OSS) and the Jedburgh project.⁴² The

⁴⁰ Lawrence, *Seven Pillars of Wisdom*, 196.

⁴¹ James Barr, *Setting the Desert on Fire: T.E. Lawrence and Britain's Secret War in Arabia, 1916-1918* (New York, NY: W.W. Norton Company, 2008); Malcolm Brown ed., *T.E. Lawrence in War and Peace: An Anthology of the Military Writings of Lawrence of Arabia* (London, UK: Greenhill Books, 2005); Scott Anderson, *Lawrence In Arabia: War, Deceit, Imperial Folly and the Making of the Modern Middle East* (New York, NY: Anchor Books, 2013); James J. Schneider, *Guerrilla Leader: T.E. Lawrence and the Arab Revolt* (New York, NY: Bantam Books, 2011); Michael Korda, *Hero: The Life and Legend of Lawrence of Arabia* (New York, NY: Harper Perennial, 2010).

Jedburgh teams were inserted deep into Nazi territory to organize, arm, train, and employ guerillas to conduct clandestine and covert IW. The sabotage, subversion, and guerilla activities were intended to shape the environment and compliment conventional Allied operations.⁴³ Similarly, in Asia, during the four years that Japanese forces occupied the Philippines, Filipino-American guerilla units fought extensively. These units had an overwhelming lack of supplies yet were able to conduct extensive operations and be a serious presence on the battlefield, setting the stage for liberation. The guerillas executed a successful indirect strategy of erosion through ambush, raiding, sabotage, and subversion.⁴⁴

Cold War Era

Following World War II, the rise and existential threat to the United States from the Soviet Union and global nuclear war precipitated a rise in American covert irregular action. While the OSS was disbanded in 1945, the traditions survived and were ultimately institutionalized in the CIA's Office of Policy Coordination.⁴⁵ Covert and clandestine influence activities were used extensively by every American President from Truman in 1948 through Reagan in 1989 to systematically weaken Soviet power and influence.⁴⁶ These operations, conducted around the world, included all manner of IW including, but not limited to,

⁴² US Army Special Operations Command, *OSS Office of Strategic Services: A Primer on the Special Operations Branches and Detachments of the Office of Strategic Services* (Washington, DC: Government Printing Office, 2014); The OSS is considered the predecessor organization to the CIA and the Jedburgh teams as predecessors to US Army Special Forces.

⁴³ Will Irwin, *The Jedburghs: The Secret History of Allied Special Forces, France 1944* (New York, NY: Public Affairs Press, 2005) xvii-xx; Aaron Bank, *From OSS to Green Berets: The Birth of Special Forces* (Novato, CA: Presidio Press, 1986); John K. Singlaub, *Hazardous Duty* (New York, NY: Summit Books, 1991); US Army Special Operations Command, *OSS Office of Strategic Services: A Primer on the Special Operations Branches and Detachments of the Office of Strategic Services* (Washington, DC: Government Printing Office, 2014).

⁴⁴ Fernando Reyeg and Ned Marsh, *The Filipino Way of War: Irregular Warfare Through the Centuries* (Monterey, CA: Naval Postgraduate School, 2011), 59-84.

⁴⁵ Sarah-Jane Corke, *US Covert Operations and Cold War Strategy: Truman, secret warfare and the CIA, 1945-53* (New York, NY: Routledge, 2008) 6.

⁴⁶ *Ibid*, 1-9.

paramilitary, propaganda, political influence, assassinations, coups, guerilla sponsorship, subversion, and sabotage. Of the forty-nine declassified covert actions conducted in this time period, the vast majority were in support of the Cold War.⁴⁷

Throughout the Cold War, the Soviet Union also conducted extensive IW.⁴⁸ Two of the common methods of Soviet IW were active measures and special tasks. Active measures were actions designed to influence world events, while special tasks were designed to deliver violence in order to achieve an objective.⁴⁹ Soviet political warfare undertook active measures that were often targeted against western governments in order to create division. The KGB actively sowed conspiracy theories related to the assassination of President Kennedy and sought to exploit racial divisions in the United States by targeting both black and white communities.⁵⁰ Soviet special tasks included assassination, subversion, and sabotage. Soviet assassinations largely were targeted against current and former communist actors either inside or outside of the Soviet Union. Josip Tito and other communist personalities who had gone against the Central Committee, including those inside Hungary, Bulgaria, and East/West Berlin, were targeted throughout the Cold War as enemies of the USSR.⁵¹ Sabotage operations were planned and conducted extensively throughout Asia and Europe by both the KGB and the GRU.⁵²

A well-documented example of Soviet IW was *Spetsnaz* (Special Forces) operations conducted during the Cold War in Afghanistan. On 27 December 1979, 700 KGB *Spetsnaz*

⁴⁷ John G. Breen, "Covert Action and Unintended Consequences," *Interagency Journal Vol.8, Issue 3* (2017):106-122.

⁴⁸ Christopher Andrew and Vasili Mitrokhin, *The Sword and The Shield: The Mitrokhin Archive and the Secret History of the KGB* (New York, NY: Basic Books, 1999); Christopher Andrew and Oleg Gorgievsky, *KGB: The Inside Story* (New York, NY: Harper Collins, 1990).

⁴⁹ Christopher Andrew and Vasili Mitrokhin, *The Sword and The Shield: The Mitrokhin Archive and the Secret History of the KGB* (New York, NY: Basic Books, 1999), 224.

⁵⁰ *Ibid*, 225-246.

⁵¹ *Ibid*, 355-363.

⁵² *Ibid*, 359-361.

soldiers from Alpha and Zenith Units invaded the Afghan palace, assaulted, and assassinated the Afghan President Hafizullah Amin while disguised as Afghan soldiers.⁵³ This was the opening operation to a war that would last until 1989, and one that would see extensive use of Soviet *Spetsnaz* in low intensity and high intensity combat operations against both Afghan uniformed forces and Mujahedeen.⁵⁴

In addition to using their own irregularly-focused military forces throughout the Cold War, both the Soviet Union and the United States operated extensively with proxy forces. As an example, the Soviets backed the IRA against the British, and, against the United States, backed the Sandinistas in Nicaragua, Palestinian terrorists in Lebanon, and the North Vietnamese Army and the Viet Cong guerilla forces in Vietnam.⁵⁵ Likewise, the United States sponsored Mujahedin guerilla forces against the Soviets in Afghanistan.⁵⁶ The United States also sponsored anti-communist forces in Nicaragua in what became known as the Iran-Contra Affair, as well as in the Philippines, Asia, and South America throughout the Cold War.⁵⁷

The war in Vietnam was a key historical period in the rise of US IW. The complex operational environment proved immensely difficult for military and civilian leaders. As the war grew to be an increasing problem, US military leaders worked to develop comprehensive strategies within significant political constraints. These strategies included extensive use of IW, in order to complement conventional operations that were proving to be unsuccessful in resolving

⁵³ Andrew and Mitrokhin, *The Sword and The Shield*, 389-391.

⁵⁴ The Russian General Staff, *The Soviet-Afghan War: How a Superpower Fought and Lost*, ed. and trans. Lester W. Grau and Michael A. Gress (Lawrence, KS: The University Press of Kansas, 2002), 1-34.

⁵⁵ Andrew and Mitrokhin, *The Sword and The Shield*, 374-388.

⁵⁶ George Crile, *Charlie Wilson's War* (New York, NY: Grove Press, 2003), ix.

⁵⁷ Chalmers Johnson, *Nemesis: The Last Days of the American Republic* (New York, NY: Metropolitan Books, 2006), 103-104.

the underlying issues of the war.⁵⁸ Irregular efforts included Civilian Irregular Defense Groups, Civic Action Programs, Special Operations, and other advisory efforts. From 1964 through 1972 the Military Assistance Command Vietnam–Studies and Observations Group (MACV-SOG) executed the war’s most covert operations in Laos, Cambodia, South and North Vietnam. These operations, intended to confuse, disrupt, deceive, attrite, and destroy, included indigenous saboteurs, penetrations, sabotage, subversion, propaganda, raids, snatches, reconnaissance, and ambushes.⁵⁹ IW during the Vietnam War was not the sole province of MACV-SOG. From 1967 through 1973, the PHOENIX Program, led and coordinated by the CIA and staffed by United States and Republic of Vietnam soldiers, conducted extensive political warfare. The political warfare of PHEONIX was a concerted effort to neutralize (kill, capture, or entice defection) the Vietcong’s leadership.⁶⁰ The United States used armed propaganda and political teams, mimicking the actions of the Communist Viet Minh, while the Viet Minh themselves drew the inspiration of their actions from Maoist thought.

The Viet Minh demonstrated the importance of political activities in guerilla warfare, focusing on the objective that establishing political control over the rural population was a paramount precondition to destroying the status quo government. The Viet Minh’s primary battle was not fought to attrite the opposition, but to win control of villages and population.⁶¹ Party cells would target villages, penetrate, and organize. The Viet Minh would also conduct party terror called Destruction of the Oppression. If a village transitioned to control willingly then terror was not used, however, in contested areas, assassination, kidnapping, and execution were used to terrorize villages into supporting the Viet Minh. The villagers, knowing who was in control

⁵⁸ Gregory A. Daddis, *Westmoreland’s War: Reassessing American Strategy in Vietnam* (New York, NY: Oxford University Press, 2014) xx.

⁵⁹ John L. Plaster, *SOG: The Secret Wars of America’s Commandos in Vietnam* (Boulder, CO: Paladin Press, 1997) 1-5.

⁶⁰ Douglas Valentine, *The Phoenix Program* (New York, NY: William Morrow and Company, Inc., 1990) 9-59.

⁶¹ Andrews, *The Village War*, 27.

locally, would not support the South Vietnamese government, as this would bring reprisals against their families. Expansion of control included organization, redistribution, taxation, recruitment, and education, all for the purpose of supporting the party and the revolution.⁶²

This terrible and brutal war raged at the local level, tearing hamlets and districts apart.⁶³ For the victorious North Vietnamese forces, IW and erosion proved to be a successful strategy. For the United States, the Vietnam War represented defeat, however, the powerful lesson that an irregular asymmetric force could defeat more powerful conventional forces was not lost on the United States.⁶⁴ Following the Vietnam War, the United States doubled down on its conventional might and holistically incorporated large aspects of IW into its own doctrine and force structure.⁶⁵

Post-Cold War Era

The end of the Cold War came in 1991 with the dissolution of the Soviet Union. That same year, military theorist Martin van Creveld presented the idea that “the most powerful armed forces are largely irrelevant to modern war.”⁶⁶ Creveld argued that the primary reason for this irrelevance is because the maintenance, logistics, administration, and cost of modern armed forces and their required technology ensures that the cost of using them is considered unacceptable.⁶⁷ Another important factor is the proliferation of nuclear weapons. The catastrophic nature of these weapons is such that states cannot use them against each other, for fear of mutual assured destruction or state suicide. Using nuclear weapons in an offensive role would carry such significant fallout, both real and perceptually, that the cost is seen as too great. Damage to

⁶² Andrews, *The Village War*, 72-104.

⁶³ Valentine, *The Phoenix Program*, 9-59.

⁶⁴ Mack, “Why Big Nations Lose Small Wars,”: 177-178.

⁶⁵ Susan L. Marquis, *Unconventional Warfare: Rebuilding U.S. Special Operations Forces* (Washington, DC: Brookings Institute Press, 1997), 33-44.

⁶⁶ Martin Van Creveld, *The Transformation of War* (New York, NY: The Free Press, 1991), 31.

⁶⁷ The US annually commits almost 600 billion dollars or 16% of its federal budget to defense. This is more than the next nine highest spending countries combined and more than three times greater than the next highest spending country, China, who spends roughly less than 200 billion annually.

reputation, population, economic systems, and environment would invariably produce intense international condemnation, thus ensuring that a nuclear first strike is not a good option.⁶⁸

Because of these factors, van Creveld predicted the rise to dominance of low-intensity conflict, noting that, “If states are decreasingly able to fight each other, then the concept of intermingling already points to the rise of low-intensity conflict as an alternative.”⁶⁹ With the United States effectively cornering the market on conventional warfare through budgetary spending and nuclear proliferation, its adversaries have been forced to either accept the current condition of American global hegemony or seek an alternative means of challenging the US dominance through asymmetric indirect and irregular ways and means. In support of Creveld’s argument, the post-Cold War period has seen the rise of non-state actors, perhaps most predominantly IVEOs.

In the 21st Century, the conflict which came to be known as the Global War on Terror has been the true coming of age for America’s proliferation of global IW. The September 11th 2001 terrorist attacks had a staggering social and economic impact on America. The following day, President Bush sought retaliation options to be implemented immediately. The plan, ultimately accepted and implemented, was the CIA’s use of paramilitary units, covertly infiltrated, partnered with indigenous Afghan forces, and directed against the Taliban and Al Qaeda. The crisis had increased the national command authorities’ tolerance for risk and decreased their constraints on the use of IW.⁷⁰ IW, executed by American Special Operations Forces, the CIA, and interagency partners, would increasingly feature as a predominant aspect of strategy as the war in Afghanistan progressed and expanded to Iraq, the Philippines, Africa, the Arabian Peninsula, and elsewhere.⁷¹

⁶⁸ Creveld, *The Transformation of War*, 194.

⁶⁹ Ibid, 194-205. Van Creveld’s definition of low-intensity is the same as we today define irregular warfare. War waged by terrorists, guerillas and other non-normative organizations motivated by fanatical and ideologically-based loyalties.

⁷⁰ Hy Rothstein, *Afghanistan and the Troubled Future of Unconventional Warfare* (Annapolis, MD: Naval Institute Press, 2006), 3-13.

As President Obama entered office in 2009, he espoused the idealism of trying to avoid violence and war at all costs. In his Nobel Peace Prize acceptance speech, he stated “that no matter how justified, war promises human tragedy,” yet, he continued, “that force may sometimes be necessary.”⁷² President Obama’s pragmatism played out over eight years as he conducted extensive covert and overt IW operations.⁷³ While the President may have preferred peace, the reality was that the global threat from state and non-state actors required an extensive offensive strategy. The Obama administration attempted to avoid the real and political costs of large-scale military action and preferred the covert and clandestine nature of IW.⁷⁴

The brief history presented above has been laid out to demonstrate that there has been a centuries-long continuation and steadily increasing proliferation of IW. IW has evolved from being not just a social tool for change but to also being a prolifically-used tool of state strategy. A significant amount of global IW actors, forming a sub critical mass, now appears to exist. These actors and their current IW paradigm will be described in the next section.

Contemporary Irregular Warfare

In the second decade of the 21st century, the contemporary operational environment now seems to be a structure capable of driving the subcritical IW mass towards criticality. Currently, significant promotion and proliferation of IW by state and non-state actors is occurring globally. This section will look at the operational paradigms of the United States, Russia, China, Iran, and IVEOs. These are all significant actors who view IW as a prominent and valid strategy. The

⁷¹ Admiral Eric T. Olson, *United States Special Operations Command Posture Statement before the Senate Armed Services Committee*, March 4, 2008.

⁷² Barack H. Obama, *Remarks by the President at the Acceptance of the Nobel Peace Prize*, December 10, 2009.

⁷³ David Sanger, *Confront and Conceal: Obama’s Secret Wars and Surprising Use of American Power* (New York, NY: Broadway Paperbacks, 2013); Bob Woodward, *Obama’s Wars* (New York, NY: Simon and Schuster, 2010); Fred Kaplan, “Obama’s Way: The President in Practice”, *Foreign Affairs* (February 2016).

⁷⁴ Jeffrey Goldberg, “The Obama Doctrine”, *The Atlantic* (April 2016).

purpose of the section will be to demonstrate how dense the current IW actor mass is and how the threat of criticality will increase as reflective lenses are added.

The United States

The US Military's paradigm of IW continues to fundamentally revolve around its special operations forces, which it considers to be a critical capability in the conflict against asymmetric adversaries.⁷⁵ The US military's special operations are categorized, doctrinally, as Special Warfare and Surgical Strike and are conducted under Title 10 authorities of US code. The United States's most irregular activities occur as highly classified covert and clandestine action taken under Title 50 authorities of US code.⁷⁶

⁷⁵ General Raymond A. Thomas III, *United States Special Operations Command Posture Statement before the Senate Armed Services Committee*, May 4, 2017; Australian Government Department of Defence, *Defence Annual Report 2015-2016* (Canberra, Australia: 2016), 89; United Kingdom Ministry of Defence, *UK Armed Forces Monthly Service Personnel Statistics 1 February 2017* (London, UK: 9 March 2017), 5. The USSOCOM consists of 70,000 people, (56,000 active, 7,400 guard/reserve, 6,600 civilians) making up 2% of the DOD manpower and using 2% of the DOD budget. As a comparison in 2015 the entire Australian Defense Force (Army, Navy and Air Force) consisted of 58,000, and the United Kingdom Army in 2017 consisted of 82,000 full time trained soldiers.

⁷⁶ US Department of the Army, *Army Doctrine Publication (ADP) 3-05 Special Operations* (Washington, DC: Government Printing Office, 2012), 6. Special Warfare is combinations of lethal and nonlethal action through, by, and with indigenous populations in politically sensitive and or hostile environments. Surgical Strike is the precise execution of activities to seize, destroy, capture, exploit, recover or damage targets or influence threats in hostile, denied or politically sensitive environments. The US conducts Special Warfare and Surgical Strike through core operations and core activities. Core Operations include Unconventional Warfare, Foreign Internal Defense, Counterinsurgency, Counterterrorism, Combatting Weapons of Mass Destruction, Stability Operations, Support to Major Combat Operations and Campaigns. Core activities include Direct Action, Special Reconnaissance, Military Information Support Operations, Civil Military Operations, Preparation of the Environment, and Recovery Operations; Andru E. Wall, *Demystifying the Title 10-Title 50 Debate: Distinguishing Military Operations, Intelligence Activities and Covert Action* (Cambridge, MA: Presidents and Fellows of Harvard College, 2011), 85-141. Congressional statute defines covert action as an activity or activities of the United States Government to influence political, economic, or military conditions abroad, where it is intended that the role of the United States Government will not be apparent or acknowledged publicly. Covert action does not include activities the primary purpose of which is to acquire intelligence, traditional counterintelligence activities, traditional activities to improve or maintain the operational security of United States Government programs, or administrative activities; traditional diplomatic or military activities or routine support to such activities; traditional law enforcement activities conducted by United States Government law enforcement agencies or routine support to such activities; or activities to provide routine support to the overt activities, other than activities described, of other United States Government agencies abroad. Colloquially intelligence agencies are understood to be primarily the US Central Intelligence Agency (CIA), although the Secretary of Defense does maintain significant authorities under Title 50.

The trend of American IW shows no signs of decreasing under President Trump. Throughout 2017, the preponderance of American combat casualties have been sustained by Special Operations Forces conducting irregular operations in places like Afghanistan, Africa, Yemen, and Syria.⁷⁷ In an October 2017 speech, CIA Director Mike Pompeo stated “we've now laid out a strategy for how we're going to execute our mission with incredible vigor. We're going to become a much more vicious agency in ensuring that we are delivering this work. We are going to go to the hardest places with some of the hardest people...to crush it.”⁷⁸

The current American IW paradigm exists in homeostasis with the US government and the American people, who seemingly have no major issue with US IW activity; this is evidenced by the fact that the US Congress has not seen a political need to put forward a new Authorized Use of Military Force. As of the time of this writing, despite the significant change of conditions, administrations, and enemies, the US military continues the robust and persistent utilization of US Special Operations Forces operating globally under the AUMF approved soon after the September 11, 2001 attacks.⁷⁹ Certainly the national command authority of the current and the two preceding administrations were and are comfortable operating extensively within the current AUMF, the existing US Code, and within established methods of congressional oversight.

A key aspect of current American IW is operations conducted outside of declared hostilities. Colloquially this is often called ‘phase zero’ or the ‘gray zone’, and these operations are considered pre-crisis activities, occurring when relations are peaceful or routine. Engagements

⁷⁷ Vera Bergengruen, “These Troops Were Killed in Combat During Trump’s First Year in Office,” Buzz Feed News, December 28, 2017.

⁷⁸ US Central Intelligence Agency, *Prepared Remarks by Director Pompeo to Foundation for Defense of Democracies*, October 19, 2017.

⁷⁹ Rachel Martin, *The Future of the President’s Authorization for Use of Military Force*, National Public Radio Transcript 30 October, 2017.; General Raymond A. Thomas III, *United States Special Operations Command Posture Statement before the Senate Armed Services Committee*, May 4, 2017.

in phase zero are intended to prevent war.⁸⁰ The gray zone is characterized as competition with the instruments of national power short of conventional war.⁸¹

The activities conducted in this zone are generally described in two competing narratives. The first narrative is one of routine military engagements with nuanced application where diplomacy is recognized as the lead activity. These activities are intended to support the strategy of the regional commander and the US country team.⁸² The activities shape the environment to prevent and deter conflict. They are conducted as Theater Security Cooperation events under the commander's Theater Campaign Plan intended to build a global network, increase partner capacity and capability, and to counter threats.⁸³

A second narrative for operations within 'phase zero' or the 'gray zone' is political warfare. US military leaders note that competition is not a binary choice between war and peace, but that in the gray zone or phase zero the United States must overmatch its adversaries with its own hybrid warfare effort. A 2015 USASOC study on SOF support to political warfare states that "The time has come for Political Warfare to recapture a predominant position in the U.S. national security policy and execution."⁸⁴ Military leaders see their role as the executors of the selective use of force or violence in discrete and controlled increments to support coercive diplomacy.⁸⁵ For these leaders, a gray zone win is "the US Government's positional advantage, namely the

⁸⁰ Brian S. Petit, *Going Big by Getting Small: The Application of Operational Art by Special Operations in Phase Zero* (Denver, CO: Outskirts Press Inc., 2013), 2-3.

⁸¹ Joseph Votel, Charles T. Cleveland, Charles T. Connett, and Will Irwin, "Unconventional Warfare in the Gray Zone", *Joint Forces Quarterly* 80 (1st Quarter 2016), 102.

⁸² Petit, *Going Big by Getting Small*, 6, 166-173.

⁸³ Kyle Johnston, "U.S. Special Operations Forces and the Interagency in Phase Zero", *Interagency Journal Vol.8, Issue 1* (Winter 2017):76-104.

⁸⁴ US Army Special Operations Command, *SOF Support to Political Warfare: White Paper* (Fort Bragg, NC: 2015): 1-3.

⁸⁵ *Ibid*, 10-33. USASOC can also support Political Warfare in Security Sector Assistance, Building Partner Capacity, and Information and Influence Activities through their core operations and activities, including Unconventional Warfare, Foreign Internal Defense, and Military Information Support Operations.

ability to influence partners, populations, and threats toward achievement or our regional and strategic objectives.”⁸⁶ However, while the United States is currently emphasizing the role of IW, it is not the only player currently pursuing IW strategies; it is one of many.

US State Adversaries

State-sponsored IW conducted by adversaries of the United States has also increased in the contemporary operational environment. Russia, Iran, and China, regularly use IW to deal with issues on their periphery, in their regions, and globally within their operational reach.⁸⁷ Their paradigm includes sponsoring proxy forces, deploying special operations forces, and using information operations.

From 2014 through to 2017, the Russian Federation has conducted extensive IW operations in the Crimea, Ukraine, the Baltics, and during European and American elections and referendums.⁸⁸ These activities are in keeping with their published strategies and doctrine, and with the theory of an IW critical mass. The activities also are in keeping with the Russian historical use of IW executed throughout the Cold War.⁸⁹

⁸⁶ Joseph Votel, Charles T. Cleveland, Charles T. Connett, and Will Irwin, “Unconventional Warfare in the Gray Zone,” *Joint Forces Quarterly* 80 (1st Quarter 2016), 108.

⁸⁷ US Army Special Operations Command, *Little Green Men: A Primer On Modern Russian Unconventional Warfare, Ukraine 2013-2014* (Fort Bragg, NC: 2015): 1; US Army Special Operations Command, *SOF Support to Political Warfare: White Paper* (Fort Bragg, NC: 2015): 5-6.

⁸⁸ US Army Special Operations Command, *Little Green Men: A Primer On Modern Russian Unconventional Warfare, Ukraine 2013-2014* (Fort Bragg, NC: 2015): 1-63; Committee on Foreign Relations US Senate, Putin’s Asymmetric Assault on Democracy in Russia and Europe: Implications for US National Security, 115th Cong., 2nd sess., 2018, v-199; United States of America v. Internet Research Agency llc A/K/A Mediasintez Llc A/K/A Glavset llc A/K/A Mixinfo llc A/K/A Azimut llc A/K/A Novinfo llc, Concord Management and Consulting llc, Concord Catering, Yevgeniy Viktorovich Prigozhin, Mikhail Ivanovich Bystrov, Mikhail Leonidovich Burchik A/K/A Mikhail Abramov, Aleksandra Yuryevna Krylova, Anna Vladislavovna Bogacheva, Sergey Pavlovich Polozov, Maria Anatolyevna Bovda A/K/A Maria Anatolyevna Belyaeva, Robert Sergeyeovich Bovda, Dzheykhun Nasimi Ogly Aslanov A/K/A Jayhoon Aslanov A/K/A Jay Aslanov, Vadim Vladimirovich Podkopaev, Gleb Igorevich Vasilchenko, Irina Viktorovna Kaverzina, and Vladimir Venkov, Indictment in the US District Court for the District of Columbia, Case 1:18-cr-00032-DLF (February 16, 2018), 1-37.

⁸⁹ Andrew and Mitrokhin, *The Sword and The Shield*, 224-246.

The current Russian hybrid warfare theory was published by Valery Gerasimov in 2013.⁹⁰ Gerasimov's vision of the current operational environment includes a "blurring of the lines between states of war and peace."⁹¹ Nonmilitary ways and means of achieving political objectives have risen in dominance, while the strategic deployment of hierarchical large conventional units is no longer the primary means of achieving objectives. Instead, the nonmilitary instruments of Russian national power will be used in conjunction with irregular and traditional military means in a hybrid strategy. This includes initiating military operations in peacetime, controlling a unified information space, asymmetric and indirect military prominence, and the inclusion of conventional means under deceptive circumstances during culminating phases. Gerasimov advocates for a strategy that will outstrip, exhaust, and attrit enemies while changing the structure of conflict to allow for Russian global leadership; this is another example of an erosion strategy.⁹²

Beyond Gerasimov's structured hybrid warfare model, there are a number of identified principles which are fundamental to the execution of a Russian IW campaign.⁹³ These principles include the use of asymmetric and nonlinear actions and the start of military activity without a

⁹⁰ US Army Special Operations Command, *Little Green Men: A Primer On Modern Russian Unconventional Warfare, Ukraine 2013-2014* (Fort Bragg, NC: 2015); Charles K. Bartles, "Getting Gerasimov Right," *Military Review* (January-February 2016): 30-37. Gerasimov's theory has been broadly accepted by analysts as the new Russian way of war. To a lesser degree some analysts have argued that Gerasimov is not proposing a new Russian way of war, and rather that instead he is simply describing his view of the contemporary operating environment. They argue that the model Gerasimov presents is not Russian, but is the Russian understanding for the current and active American way of war. Conversely a compelling and well-supported argument that Russia actively used Gerasimov's hybrid warfare model in Ukraine 2013-2014 has been made by the National Security Analysis Department at Johns Hopkins University. The study, conducted by the nongovernmental department, was sponsored and supervised by the US Army Special Operations Command under a program titled ARIS or Assessing Revolutionary and Insurgent Strategy.

⁹¹ Valery Gerasimov, "The Value of Science Is in the Foresight: New Challenges Demand Rethinking the Forms and Methods of Carrying out Combat Operations," *Military Review*, trans. Robert Coalson (January-February 2016): 23-29.

⁹² Ibid.

⁹³ USASOC, *Little Green Men*, 1.

declaration of war. The elevation of diplomatic, economic, and information instruments of national power over the military instrument also allows for a more covert crisis development and escalation. These actions sow seeds of doubt that are then used to deceive populations and cover Russia's true intentions. The extensive use of the information domain, and the use of cyberwarfare, propaganda, and deception directed against audiences both domestically, internationally, and inside the conflict sphere ensures that the cover story, deception, and narrative are delivered in requisite amounts.⁹⁴

To execute their IW, Russia uses an extensive network of local and imported agents. These agents are purposefully intended by Russia to be hard to identify by other actors as Russian agents. They use armed civilian proxies instead of or in advance of their regular troops, and also use a vast array of *Spetsnaz*.⁹⁵ These agents use intimidation, bribery, assassination, and agitation to develop the crisis, coerce actors, and influence the environment. Finally, Russia combines a persistent denial of operations with the use of a deceptive political narrative and strategy, one which gives the appearance of cooperation with global norms while continuing covert and clandestine irregular action. Russia's goal is to create a grey zone where stated intentions do not match intervention actions. Overall this makes it extremely difficult for Russia's adversaries to confirm actions, prove that Russia is breaking international law, or hold Russia accountable for its actions.⁹⁶

Similar to Russia, Iran is also a highly active regional IW actor who regularly uses asymmetric ways and means to achieve political objectives below the threshold of large-scale conflict. The US government describes a major aspect of Iranian IW as "covert support to proxy

⁹⁴ USASOC, *Little Green Men*, 1, 14-19.

⁹⁵ Graham H. Turbiville Jr., *Russian Special Forces: Issues of Loyalty, Corruption and the Fight Against Terror* (Tampa, FL: JSOU Press, 2005), 3. Russian Spetsnaz are considered special operations forces and have a broad range of organization and capabilities from highly irregular to hyper-conventional attributes.

⁹⁶ USASOC, *Little Green Men*, 5, 58-59.

forces in the region and beyond.”⁹⁷ These proxy forces often are Shia-based IVEOs that include Hamas, Lebanese Hezbollah, Palestinian Islamic Jihad, the Taliban, and Iraqi Shia groups.⁹⁸ The primary method of support to proxy forces is through the Iranian Revolutionary Guards Corps (IRGC), which provides, material support, training, organization, and leadership to organizations that have goals that are broadly aligned with Iranian interest.⁹⁹ Iran’s malign activities have created significant instability in the Middle East region. Their activities are represented domestically as being in the interests of Iran; by working against western powers’ regional influence, Israel’s long-term survival, and Sunni based governments, Iran ensures that their Shia-based regional hegemony continues to be a long term possibility.¹⁰⁰

In contrast to Russia and Iran, China appears to operate farther away from the guerilla military end of the IW spectrum and more towards the diplomatic, information, and economic end. The Chinese Central Military Commission’s concept of ‘unrestricted warfare’ stipulates that nothing is forbidden, as there are no rules in war.¹⁰¹ Their irregular ways and means include the ‘Three Warfares’ of psychological, media, and legal operations used as levers of influence to achieve political objectives short of war.¹⁰² These concepts enable action within the grey zone,

⁹⁷ US Army Special Operations Command, *SOF Support to Political Warfare: White Paper* (Fort Bragg, NC: 2015): 5-6; Derek Jones, *Understanding the Form, Function, and Logic of Clandestine Insurgent and Terrorist Networks: The First Step in Effective Counter-network Operations* (Tampa, FL: Joint Special Operations University, 2012), 6, 83-86. The Iranian Quds Force is a special operations unit within the IRGC which executes the majority of Iranian regional irregular warfare. For example, during the US Iraq war 2003-2009, the Quds Force actively supported clandestine Shia militant groups against the US by providing a specific improvised explosive device known as an explosively formed penetrator. These EFPs inflicted significant casualties against the US and dramatically influence the conflict.

⁹⁸ USASOC, *SOF Support to Political Warfare*, 6-7.

⁹⁹ Ibid.

¹⁰⁰ Derek Jones, *Understanding the Form, Function, and Logic of Clandestine Insurgent and Terrorist Networks: The First Step in Effective Counter-network Operations* (Tampa, FL: Joint Special Operations University, 2012), 6, 83-86.

¹⁰¹ Qiao Ling and Wang Xiangsui, *Unrestricted Warfare*, trans. Foreign Broadcast Information Service (Beijing: PLA Literature and Arts Publishing House, 1992), xvii-xviii.

¹⁰² Ling and Xiangsui, *Unrestricted Warfare*, 1-20.

which is hard to identify, and hard to define. Their actions happen covertly and clandestinely, ensuring that some manner of objective is achieved while attempting to minimize adversarial awareness and reactions.¹⁰³

US Non-State Adversaries

Although state-sponsored IW is globally prolific, they are not the only actors. The IW core also includes non-state IW, which has dominated conflict narratives for the last two decades. Non-state IW conducted by global Salafist jihadi organizations including Al Qaeda and the Islamic State in Syria (ISIS), has created a significant social and political impact.

The Maoist model, developed for Communism, continues to be employed by IVEOs, though contemporary use of this model pairs it with an evolving use of digital information networks, and increasing use of terrorism.¹⁰⁴ There are a multitude of organizations using Islam to provide the language and the rhetoric to fuel their operations and organizations, as “Islam represents the ideological engine legitimizing another period of significant political, economic, and social ferment.”¹⁰⁵ The ideological interpretations drive the radicalized politics and reflect grievances, while providing justification and motivation for the organization’s physical power structure.¹⁰⁶

IVEOs further justify their actions with Cosmic War theory. This theory states that the images, symbols, and language of divine warfare make the conflict larger than the life of an

¹⁰³ USASOC, *SOF Support to Political Warfare*, 5-6.

¹⁰⁴ Roby Barrett, *Islam: Ideology and Conflict* (MacDill, FL: The JSOU Press, 2014), 20. This study does not intend to misrepresent Islam as a monolithic unified nation, but recognizes that Islam has an “extremely complex political, economic, social, and cultural diversity.” A plethora of violent extremist organizations have emerged from all sects, sides, and traditions of Islam. This includes state and non-state actors, splinter groups, Global Salafist Jihadists, structured hierarchical state-sponsored Sunni groups, splintered cellular Sunni groups, and Pan-Islamic groups which operate inclusively and exclusively locally, regionally and globally.

¹⁰⁵ *Ibid*, 7.

¹⁰⁶ *Ibid*, 7.

individual.¹⁰⁷ The will of god makes the nature of the warfare absolute and so the adherents and organizations are supremely committed and uncompromising. Cosmic warriors perceive the struggle to be a defense of basic identity and dignity. For them losing the struggle would be unthinkable, because losing represents the complete destruction, not only of themselves but also of their society. When the real world struggle is seen as a sacred war that is blocked or cannot be won in real time, then it can be reconceived on a sacred plane. Cosmic warriors easily justify radical ideology, violent operations, high risk, and martyrdom.¹⁰⁸ The sacred struggle is the underpinning idea behind the Islamist Jihadi's altruistic motivation. His/her posthumous interest in fighting and dying for the revolution is that the war or jihad is the instrument of religion.¹⁰⁹

The paradigm of non-state IVEOs is relatively easy to understand and paradoxically exceedingly difficult to eradicate. These are clandestine organizations built on a foundation of Islamist ideology and motivated by Cosmic War theory. They employ a long-term vision and strategy of resiliency and survivability to prolong conflict. Success equals continued conflict, which leads the United States and the West into economic and political defeat and a return to isolationism, establishing beneficial conditions for an Islamic caliphate.¹¹⁰ The clandestine organization has also recognized that by affiliating and franchising locally and regionally, the movement will propagate globally even if a local affiliate is annihilated. Local affiliation produces buy-in from stakeholders, providing a grass roots connection to the global movement and thus ensuring that in the event an affiliate is annihilated, the base can then recreate or replace it.¹¹¹ The Islamist ideology underwrites the social narrative, which further propagates the movement and ensures long term survivability.

¹⁰⁷ Mark Juergensmeyer, *Terror in the Mind of God: The Global Rise of Religious Violence* (Berkeley, CA: University of California Press, 2003) pp148-166.

¹⁰⁸ Ibid.

¹⁰⁹ Creveld, *The Transformation of War*, 158, 134-139.

¹¹⁰ Jones, *Understanding the Form*, xiv-xv.

The Environmental Structure

The current structural environment which houses the subcritical IW core mass is hospitable to the growth and success of IW as a strategy. Environmental factors including the reduced ability of states to compete conventionally, globalization complexity, global population, and the information age have significantly contributed to the overall volatility.

The first environmental factor revolves around the United States conventional warfare hegemony, which has given impetus to the rise of IW. American adversaries' IW capacity and capability has developed as a direct response to America's conventional warfare multi-domain dominance.¹¹² The American military's size, scope, capability, and reach, in the air, on the land, in the sea, and in space, coupled with the American willingness to fund and resource this military, has made it unlikely that any one nation, state, or people can directly challenge the United States with high intensity conventional warfare. Because of this fact, adversaries are finding alternative means to challenge the United States. If direct military confrontation is unlikely to produce the desired strategic objective, then an adversary will seek other opportunities by employing their instruments of power in an indirect manner.¹¹³ This has manifested in indirect strategies of erosion that utilize IW.

The next significant environmental factor is population. Currently the global population is estimated at seven and a half billion.¹¹⁴ This is an exponential growth from a population that only reached its first billion around 1800, and then exploded during the 20th century, reaching two billion in 1927, three billion in 1960, four billion in 1974, five billion in 1987, and six billion in

¹¹¹ Barrett, *Islam*, 75.

¹¹² Crevelde, *The Transformation of War*, 1-33, 205-212.

¹¹³ US Department of Defense, Joint Staff, *Joint Publication (JP) Doctrine for the Armed Forces of the United States* (Washington, DC: Government Printing Office, 2017), I 12-I 14.

¹¹⁴ United Nations, *World Populations by Year* (New York, NY: United Nations, 2017).

1999.¹¹⁵ This increased population leads to increased competition and cooperation for the earth's limited resources, and an ever-increasing portion of the global population that has significant grievances based upon resource competition.

The post-Cold War era of globalization, in which the speed of travel, information access, and real time communications have all increased has resulted in organizations, including businesses and criminal enterprises, becoming truly multinational. Correspondingly, competition and cooperation for resources among these groups has become more acute.¹¹⁶ The manner with which the global connectivity of the information age has enabled the progress of the global population towards achieving greater freedom and self-determination is a significant factor in encouraging IW. The proliferation of available information pertaining to the ends, ways, and means of revolutionary change and IW tactics means that “subjugated people everywhere will continue to rise up against repressive governments – and the enemies of those repressive governments will continue to aid those insurgents.”¹¹⁷

The information age and the use of the internet has further exacerbated the complexity of population interaction in this environment, giving particular benefit to non-state actors. IW organizations have become adept at using technology, the internet, and the information age to spread their narrative. They use these mediums for informational, operational, and intelligence purposes, including recruitment, radicalization, secondary socialization, and public affairs.¹¹⁸ The information age has enabled the progress of the global population towards achieving greater freedom and self-determination, while also contributing to the rise and efficiency of violent

¹¹⁵ Ibid.

¹¹⁶ Chris Brown and Kirsten Ainley, *Understanding International Relations: Fourth Edition* (New York, NY: 2005), 177-198.

¹¹⁷ Michael N. Schmitt and Andru E. Wall, *The International Law of Unconventional Statecraft* (Cambridge, MA: Presidents and Fellows of Harvard College, 2014), 371.

¹¹⁸ Jytte Klausen, “Tweeting the Jihad: Social Media Networks of Western Foreign Fighters in Syria and Iraq”, *Studies in Conflict and Terrorism*, 38:1 (2015):1-22; Jialun Qin, Jennifer J. Xu, Daning Hu, Marc Sageman, and Hsinchun Chen, “Analyzing Terrorist Networks: A Case Study of the Global Salafi Jihad Network,” *Intelligence and Security Informatics* (May 2005): 287-304.

organizations. These environmental factors are not the linear cause of the rise of IW. Rather, they are fundamental aspects of the contemporary environment, which as a result are contributing factors to IW. These characteristics have created a structure that is optimal for the emergence of collective behavior related to IW.

In sum, this section has sought to describe the subcritical core mass of IW actors by describing relevant history and theory. The description of the contemporary IW paradigm and environment structure is intended to set the conditions for understanding how this core mass can reach criticality, and how that reaction will create significant negative effects. The next section will describe IW reflective lenses, the IW critical mass reaction, and the effect of the reaction.

Irregular Warfare Critical Mass

The previous section described the development of a subcritical IW mass and the environmental structure which surrounds the mass. This structure has facilitated the subcritical mass moving closer to criticality, however, as with the Demon Core, in order to reach criticality, reflective lenses are required to return escaping energy back into the core. Reflection pushes the core towards criticality and a self-sustaining nuclear reaction. The energy of the fissioning atoms in turn fissions other atoms. The process multiplies at an exponential rate until the fuel is expended or the explosion expands to such a degree that the core disintegrates.¹¹⁹

¹¹⁹ Hansen, *US Nuclear Weapons*, 13-16.

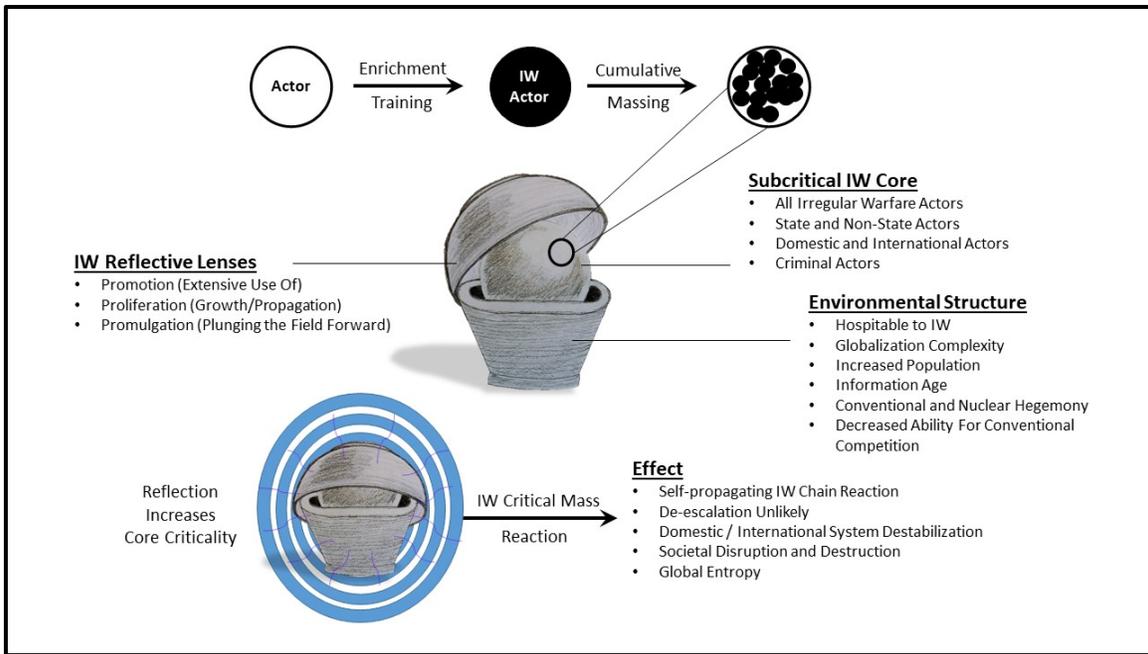


Figure 2. Irregular Warfare Critical Mass. Created by author.

Just as nuclear reflective lenses are essential to pushing a subcritical nuclear core to criticality, so are IW reflective lenses essential to pushing an IW core into a critical state. IW reflective lenses, of course, are not actual physical objects, but instead are effects caused by IW action which returns back to the core mass of IW actors, further driving the actors to react with increased IW activity. As seen in figure 2, in this model the IW reflective lenses are: promotion—furthering the progress of IW; proliferation—increasing the number of IW actors; and promulgation—making IW widely known, generating a ‘plunging’ effect and pushing the field forward through the mimicking of capacity and capability. The next section will describe each reflective lens and the effect that the lens has on the core. This section will generally utilize the United States as an example to describe the lens and the effect of the lens. However, the effect should be interpreted to apply to all IW actors, state and non-state. As such, the reflective lenses return the effect from all actors within the IW core back towards the core. By describing these lenses, and showing how they are in use in the current environment, this section demonstrates that the risk of the IW core reaching criticality is increasing.

Irregular Warfare Reflective Lenses

The first IW reflective lens is promotion. Promotion is furthering the progress of a venture, championing it, supporting it, or actively encouraging it.¹²⁰ The promotion lens can be seen in the United States' own substantial use of IW, an action which is furthering the use of IW as a strategy. As detailed above in the contemporary IW section, the United States commits a substantial amount of resources and emphasis to IW. However, even with that commitment, there is a strong call from US political, military, and academic leaders for an increased special operations role in political warfare, as US adversaries, state and non-state, increase their own IW operations.¹²¹ This is further justified as Russian political influence and hybrid warfare operations, directed against the United States and its allies, continue to be revealed.¹²²

Historically during national security crises, America has increased its risk tolerance and decreased its constraints on IW. This was described above, in the historical reviews of the American Revolution, World War II, and the Vietnam War. This condition of decreased constraints leads to increased IW. As actors such as the United States promote IW, other actors interpret that the ends, ways, and means of IW are a relevant and necessary activity that they must also promote.

The next reflective lens is proliferation. Proliferation is the increase in the numbers of IW actors; this is the cultivation or propagation of more actors with the capacity and capability to

¹²⁰ Merriam-Webster Dictionary, 11th ed., s.v. "promotion", 2018.

¹²¹ United States Army Special Operations Command, *SOF Support to Political Warfare: White Paper* (Fort Bragg, NC: 2015): 1-34; Joseph Votel, Charles T. Cleveland, Charles T. Connett, and Will Irwin, "Unconventional Warfare in the Gray Zone," *Joint Forces Quarterly* 80 (1st Quarter 2016), 101-109; Doug Livermore, "It's Time for Special Operations to Dump 'Unconventional Warfare'" *War on the Rocks* (October, 2017); US Central Intelligence Agency, *Prepared Remarks by Director Pompeo to Foundation for Defense of Democracies*, October 19, 2017; Max Boot and Michael Doran, "Political Warfare", *Council on Foreign Relations Policy Innovation Memorandum No. 33* (Washington, DC: Council on Foreign Relations, June 7, 2013).

¹²² USASOC, *Little Green Men*, 1-67.

conduct IW.¹²³ Proliferation is achieved by different paths; states can internally grow their own forces, or they can create proxy or surrogate forces externally. Returning to the metaphor, consider that if every person is capable of violence, and therefore similar to a molecule of Uranium 238, then each trained IW individual can be likened to a more-dangerous enriched fissile Uranium 235 molecule. These enriched actors are trained, equipped, motivated, and organized for violence; this makes it more likely that an IW reaction will occur, given the availability of fuel.

The United States, for example, has recently developed new IW actors both internally and externally. Within the last decade USSOCOM has created the Marine Special Operations Command (MARSOC). Established in 2006 with nearly 3000 personnel, MARSOC personnel are “complex problem solvers able to operate across the full spectrum of special operations in small teams under ambiguous and austere environments.”¹²⁴ In Afghanistan, the US strategy for enhancing security and stability includes “doubling the size and capabilities of the Afghan Special Security Forces (ASSF).”¹²⁵ ASSF are considered the most capable and effective forces in the region.¹²⁶ These two specific examples are given to demonstrate growth from a small selection of actors.

Seemingly every example of IW proliferation comes with a reasonable and justified objective from the organization which sponsored the growth. However, the action still has a reflective effect. Each and every example of proliferation diffuses the capacity and capability to conduct IW to an increasingly larger population base. The continued proliferation of IW by state and non-state actors ensures that the capability will be sufficiently diffused amongst the global

¹²³ Merriam-Webster Dictionary, 11th ed., s.v. “proliferate”, 2018.

¹²⁴ US Special Operations Command, *2018 Fact Book* (Washington, DC: Government Printing Office, 2018), 30-33.

¹²⁵ US Department of Defense, *Report to Congress: Enhancing Security and Stability in Afghanistan* (Washington, DC: Government Printing Office, 2017), 1.

¹²⁶ *Ibid*, 72-75.

population in such a way that it can no longer be controlled by any single or combined grouping of hegemonic powers. The global population will be so saturated by IW capability that an IW critical mass can develop, and, once started, there is a higher probability that a complete loss of control will develop.

In an effort to illuminate the described IW power diffusion condition it is possible to contrast it against conventional warfare and nuclear warfare. Nuclear weapons and the ability to conduct nuclear war are held by a relatively tiny portion of the geopolitical community. It is therefore possible for this small community to escalate and de-escalate as they see fit. While these powers could undertake nuclear war, they can also de-escalate and avoid the resultant 'Mutually Assured Destruction' likely to result from global nuclear warfare.¹²⁷ In other words, the small number of actors can agree to keep a critical mass from developing.

A similar condition exists in conventional warfare. The exorbitant *materiel* costs of maintaining and employing conventional warfare capabilities sufficient to achieve political objectives, as well as the negative costs which would result from global conventional war, significantly limits the number of geopolitical actors who have the capability or will to use such a strategy. Again, a relatively small number of actors can escalate and de-escalate according to their own requirements. Similar to nuclear war, a conventional war critical mass is unlikely to develop because the cost is too high and only a few have access to the means. In contrast, the cost of IW is relatively low and the number of actors with access to IW is exponentially higher, as shown in figure 3. The power to wage IW has been diffused to a rapidly growing population who are increasingly in competition and aggrieved. The effect created from the proliferation reflective lens is significant, as with every proliferation action, reaction, and counteraction by any and all global IW actors, the risk of the metaphorical IW chain reaction increases.

¹²⁷ Fred Kaplan, *The Wizards of Armageddon* (Stanford, CA: Stanford University Press, 1983), 317.

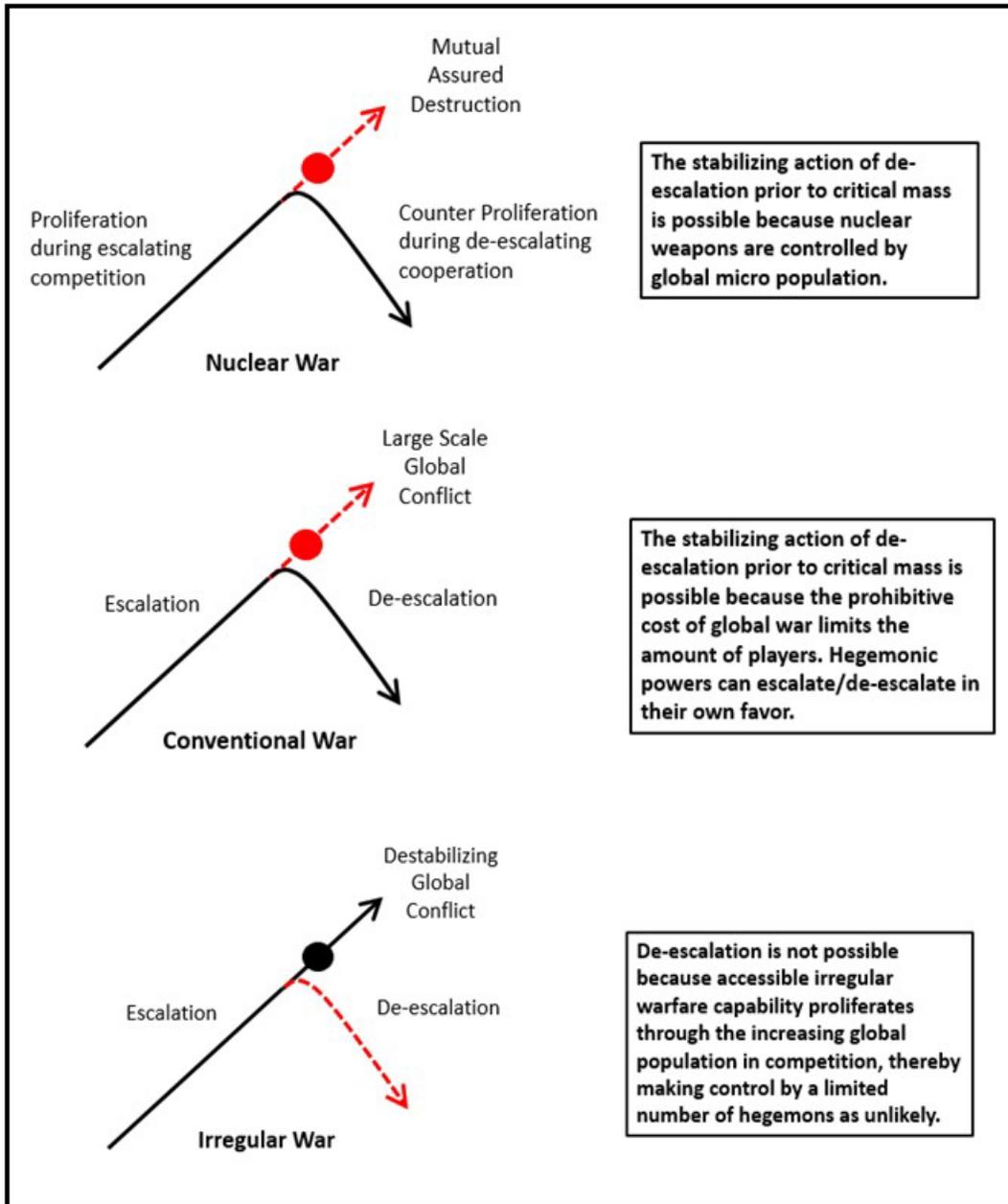


Figure 3. Power Diffusion Effect. Created by author.

The third identified IW reflective lens is promulgation. Promulgation is communicating, or making IW widely known.¹²⁸ Promulgation creates a ‘plunging’ effect, pushing the entire field of IW actors forward. The theory of ‘plunging’ states that, as an actor releases or utilizes a specific military capability, it forces adversaries to mimic and develop their own like

¹²⁸ Merriam-Webster Dictionary, 11th ed., s.v. “promulgate”, 2018.

capability.¹²⁹ All actors who wish to compete, therefore, will usually adopt new technologies as quickly as they can. Never before has so much information on US IW activity been so widely available. From memoirs, to movies, leaks, books, doctrine, and scholarly writing, the United States produces a significant amount of information on the conduct of contemporary IW. This may make the United States better able to carry out IW, but these communications also provide a great source of information that adversaries can use to better their own IW. In line with the theory of ‘plunging’, it is also likely that, as information on US IW organizations becomes known, adversaries are building like IW organizations. The massive scope and scale of the current US special operations institution makes it difficult to contain or restrict this information. Therefore, it is likely that US adversaries, following the US model, will continue to develop highly capable and technologically enabled covert and clandestine special operations and IW organizations in order to challenge the United States’s capacity and capability in this field.

The more the United States promulgates or reveals about its own special operations forces the more likely that its state and non-state adversaries will attempt to mimic these agencies. It would therefore seem that, following a classic conflict spiral, the United States would then attempt to develop even more irregular and secretive organizations.¹³⁰ As Richard Bissell, the former head of CIA covert activities noted in his memoirs, “Most large operations cannot be truly secret.”¹³¹ Focusing a large organizational effort towards covert and clandestine warfare would seem to violate Bissell’s hard-earned understanding of covert operations. In other words, any large scale IW activities by the United States, as are currently occurring, will also likely feed the IW chain reaction and produce unintended consequences within the complex geopolitical system.

¹²⁹ Leo J. Blanken and Jason J. Lepore, “Slowing Down to Keep the Lead in Military Technology,” *Defence and Peace Economics Volume 22 Issue 3 (June 2011)*, 317-334.

¹³⁰ Edward J. Lawler, Rebecca S. Ford and Mary A. Blegen, “Coercive Capability in Conflict: A Test of Bilateral Deterrence Versus Conflict Spiral Theory,” *Social Psychology Quarterly*, Vol. 51, No. 2 (June 1988), 93-107.

¹³¹ Richard Bissell, *Reflections of a Cold Warrior: From Yalta to the Bay of Pigs* (New Haven, CT: Yale University Press, 1996), 214.

It is important to note that mimicking or ‘plunging’ by adversaries is not inevitable upon the promulgated release of a capability. Adversaries may choose to pursue other options or not develop like capacity and capability for multiple reasons. However, this paper argues that promulgation is an IW reflective lens. While not all adversaries will choose to develop IW capabilities, there is significant potential that at least some will, and over the long term there is a likelihood that promulgation leads to a ‘plunging’, adding to the IW core mass.

An alternative perspective on ‘plunging’ would be to look at the United States’ potential incorporation of their adversaries’ IW ways and means. When contrasting the current American IW paradigm against its adversaries’ IW paradigm, arguably the United States could increase its own effective IW ways and means by incorporating its adversaries’ ways and means. It is possible that in future conflict, the United States could approve of increasingly unethical, immoral, and currently illegal activities, if it felt the ends justified the means.¹³² The moral calculus of this possibility is dangerous. For any state, the ability to maintain good standing within the international community requires a state to follow commonly accepted norms of behavior that outline legitimate and illegitimate forms of warfare. Following these norms increases a state’s ability to have influence within the current global community.¹³³ If the United States were to erode this foundation of good standing, it would likely be less effective in any geopolitical competition requiring allies.¹³⁴

Increasingly unethical, immoral, or illegal covert action is not inevitable, nor is it predetermined. In fact, covert action can be an effective element of any political and military strategy.¹³⁵ Effective covert action takes advantage of adversary’s cognitive blind spots and does

¹³² John G. Breen, “The Ethics of Espionage and Covert Action: The CIA’s Rendition, Detention and Interrogation Program as a Case Study,” *Interagency Journal Vol.7, Issue 2* (2016): 71-80.

¹³³ Gregory Reichberg, Henrik Syse, and Endre Begby, eds., *The Ethics of War: Classic and Contemporary Readings* (Maiden, MA: Blackwell Publishing, 2006), 385-437.

¹³⁴ Chalmers Johnson, *Blowback: The Cost and Consequences of American Empire* (New York, NY: Henry Holt and Company, LLC, 2004) 3-34.

what is unexpected, making the action irregular. Such covert actions are not necessarily unethical. However, if the United States adopts the IW paradigm of its adversaries, there is a risk of covert actions being taken which are dissonant with American or international community values.

The current American special operations paradigm includes significant and justifiable constraints against IW ways and means. Constraints on American IW classified as covert action come in many forms and include legal, moral, and social restrictions.¹³⁶ In April of 2017, CIA Director Pompeo stated:

we do not pursue covert action on a whim without approval or accountability. There is a comprehensive process that starts with the President and consists of many levels of legal and policy review and reexamination. Let me assure you: When it comes to covert action, there is oversight and accountability every step of the way.¹³⁷

State adversaries are required to constrain their activities to some degree because of international and domestic law, albeit to their own subjective interpretation. However, non-state asymmetric adversaries of the United States are not similarly constrained. For example, there are very few constraints to how IVEOs conduct IW.

Terrorist attacks against civilian targets, conducted globally, as well as suicide operations and execution videos demonstrate that the moral and ethical considerations of Western states do not bind the actions of non-state IW actors. It would also seem that these stateless organizations are not bound by domestic or international law. Therefore, it is logical that, as long as the actions can reasonably be defended as legitimate to the members of the non-state group—for example, within a group’s specific interpretation of Islamist Sharia Law and ethical and moral teachings — then these groups will justify, accept, and continue such actions.

¹³⁵ Breen, “The Ethics of Espionage and Covert Action”, 72.

¹³⁶ Jim Sleesman, “Conducting Unconventional Warfare in Compliance with the Law Of Armed Conflict,” *Military Law Review*, Volume 224 Issue 4 (2016), 1101-1149; Michael N. Schmitt and Andru E. Wall, *The International Law of Unconventional Statecraft* (Cambridge, MA: Presidents and Fellows of Harvard College, 2014), 349-376; Andru E. Wall, *Demystifying the Title 10-Title 50 Debate: Distinguishing Military Operations, Intelligence Activities and Covert Action* (Cambridge, MA: Presidents and Fellows of Harvard College, 2011), 88-89.

¹³⁷ US Central Intelligence Agency, *Remarks as Prepared for Delivery by Central Intelligence Agency Director Mike Pompeo at the Center for Strategic and International Studies*, April 13, 2017.

If the United States were to incorporate the ways and means of their adversaries this could lead to increasingly unethical, immoral, and illegal activities.¹³⁸ The more morally dubious the IW activities, the more likely that US moral and ethical standing decreases. USSOCOM's already extensive footprint and global operational activities could have a devastating impact on the international system if their predominant activities switch from more benign security force assistance to more malign political influence activities.¹³⁹ This study categorizes such malign IW activities as reflectors, and ones that would be a significant catalyst to a self-propagating IW chain reaction. Thus, the 'plunging' advance of ethically questionable IW activities could, if adopted by actors such as the United States that are currently more constrained, lead to increasing violence.

In sum, the reflective lens metaphor is designed to provide a model by which we can understand how IW actors' actions—promotion, proliferation, and promulgation—are reflecting back upon the core mass of IW actors and thus driving the whole towards increased irregular war. Once the core mass of IW actors goes 'critical' then the disruptive effect will be significantly detrimental to global society as a whole. The next section will discuss the overall effect of the IW critical mass reaction and effect.

Effect of the Irregular Warfare Critical Mass Reaction

The final aspect of the Demon Core metaphor that needs to be addressed is the radiant effect caused by the IW critical mass and chain reaction. The ionizing effect of gamma radiation on biological cells can be delivered in two different scenarios, acute and protracted. In each scenario the cellular damage can be lethal, dependent on the dosage and the amount of time of exposure. Cellular change from the radiation dramatically affects the cells' odds of survival. In

¹³⁸ Breen, "The Ethics of Espionage and Covert Action", 71-80.

¹³⁹ General Raymond A. Thomas III, *United States Special Operations Command Posture Statement before the Senate Armed Services Committee*, May 4, 2017.

lethal cases, the radiation creates such significant damage that the overall physical stress on the system is so severe that the whole system cannot cope and therefore collapses.¹⁴⁰

The radiation metaphor is used to represent the effect of exposure to instability caused by an IW critical mass. The idea is that the cumulative effect of exposure to both acute and protracted violence will erode normative international and national institutions, governments, rule of law, and societies. The resultant effect will be that these norms will no longer effectively function. It should be noted that the primary goal of revolutionary violence is a change of the status quo.¹⁴¹ Therefore, the resultant effect of the individual IW conflicts needs to be evaluated with an eye toward the overall global scope and scale, in order to see that the cumulative effect of a critical mass of IW conflicts would be severe.

The proliferation of IW strategies means that conflict can be initiated by any one of a number of groups, and therefore ending these conflicts is not something that two states can simply agree to do, or implement and enforce on their populations. Geopolitical actors now know that ending a conflict is a decision that all involved actors must agree upon. If any actor disagrees with the decision to end, then the conflict will continue into perpetuity, for in the information age it is increasingly difficult to eradicate an idea, an ideology, or a group that might recruit combatants to support their goals.¹⁴² Conversely, it is increasingly possible for relatively small actors to produce sufficient friction within the complex system of geopolitical interactivity that can result in changes to the system. This friction now commonly manifests as IW. The damaging effects of IW activity do not only pertain to international conflicts. States, including the United States, are at internal risk from the effects as well. Internal risks can result from the ‘blowback’ of

¹⁴⁰ George H. Anno, Gene E. McClellan, Michael A. Dore, Siegmund J. Baum, *Biological Effects of Protracted Exposure to Ionizing Radiation: Review, Analysis, and Model Development* (Los Angeles, CA: Pacific-Sierra Research Corp, 1991), 193-195.

¹⁴¹ Mao Tse-Tung, *On Guerilla Warfare*, trans. Samuel Griffith II (Chicago, IL: University of Illinois Press, 2000) 41-50; Chalmers Johnson, *Revolutionary Change* (Stanford, CA: Stanford University Press, 1982), 147.

¹⁴² Johnson, *Revolutionary Change*, 150.

unintended consequences, from domestic actors turning against the state, or internal IW activities externally directed by adversaries

Guerilla war often produces savage violence from both sides. Depending on the level of violence, change becomes inevitable, as return to the previous status quo is unlikely.¹⁴³ The effect of the violence upon the actors causes irrevocable changes to the dynamics of the area involved in the violence. Whether the government or the revolutionary forces are the victors, the social wounds often run deep and grievances remain for long periods. As in any conflict, a reactionary desire to return things to normal, as they were before the conflict, is an impossible goal. In essence, the conflict affects the fundamental makeup of the structure and actors.¹⁴⁴

Multiple IW conflicts, causing great friction in the international system, and fundamental changes to the status quo around the world, could lead to a critical mass which produces a chain reaction of perpetual self-propagating IW activity. It is then possible that the IW critical mass will produce so much friction in the complex geopolitical system that the system can never stabilize or achieve homeostasis. The system will never settle long enough for significant structured progress to occur; this condition will result in global entropy. The natural tendency of entropy will be fed by the IW critical mass and the increased global population in resource competition, until eventually the number of destabilizing actors will far exceed the stabilizing actors. This will result in a permanent disruption and the irrevocable destabilization of the global status quo.

While the scenario described in this section is bleak, indeed, it follows the logic of critical mass and chain reaction. Promotion, proliferation, and promulgation of IW activities may provide enough reflected energy back at the core of actors that such an outcome becomes likely. This, however, is not the only potential outcome the future holds.

¹⁴³ Johnson, *Revolutionary Change*, 148-150.

¹⁴⁴ Stathis N. Kalyvas, *The Logic of Violence in Civil War* (Cambridge, UK: Cambridge University Press, 2006), 111-145.

Recommendations

Possibly the most important aspect of the IW Demon Core metaphor is that there is no realistic way to know when or if the core has gone critical. If the IW core continues to be enriched, reflected, and housed within an environment that proliferates IW activity then the core will continue towards criticality. This is where the metaphor and reality diverge. The scientists of the Manhattan Project were conducting experiments to measure and understand when uranium cores would go critical. In contemporary IW, there is no scientific method to measure or know if the global cumulative population of IW actors will ever go critical, is moving towards criticality, or is already critical. Therefore, the prescriptive approach to deal with the problem must holistically deal with all outcomes, including the worst-case scenario.

This study has shown that, over time, a large group of IW actors has developed globally. Sufficient IW actors, both state and non-state, now exist that, metaphorically, an enriched core mass of IW actors has coalesced. This core is housed in an operational structure, or environment, which contributes to the core's survival and success. Enabling environmental structural factors have then pushed the core towards criticality. The reflective activity has raised the criticality of the IW core, taking it from being a dangerous but relatively stable mass of actors, to an uncontrollable mass that may become—or already is—a self-propagating chain reaction of IW activity. This section offers recommendations for a strategy to address such an IW critical mass. The strategy has three active efforts designed to limit any ongoing or potential critical reaction. Stakeholders must first remove reflective lenses to decrease core criticality. Second, stakeholders must insert rods to control the reaction, and third, shielding material must be built for protection from the IW effects.

Deconstructing the hospitable environment and structure which houses the core is an unrealistic proposition. Decreasing global population, limiting the global information network, or decreasing the challenges of resource competition are unlikely solutions. It is not a stretch to say that there have been and will always be large populations of humans with grievances, either

political, social, economic, or otherwise, which will seek change through either violent or non-violent means. Therefore, the first active effort to decrease core criticality is the removal of the IW reflective lenses; promotion, proliferation, and promulgation. The removal of the reflective lenses is equivalent to ceasing or decreasing actions that are actively increasing the core's criticality. The goal is to reduce the overall criticality of the mass and to stop growing the mass through increased enrichment.

Counter-promotion efforts may be easier said than done. Reducing state and non-state actors' reliance on IW as a key piece of strategy will be difficult. IW certainly is a trending contemporary strategy; however, it is also not a panacea for global competition. IW is as unlikely to produce lasting stability any more than nuclear or conventional-based strategies were. But just as states have been able to move away from high intensity competition through nuclear and conventional means, states may also be able to move away from irregular competition. If stability is an objective of the majority of global actors, then counter-IW promotion can be undertaken holistically, with strategies to reduce conventional, nuclear, cyber, or other disruptive competition. Though it is counterintuitive, the idea of increasing the ability to compete conventionally would likely reduce the need to compete irregularly. The idea of increasing conventional capabilities and conflict, however, raises numerous serious problems of its own.

Counter proliferation is potentially a more realistic way to limit IW; IW actors do have the capability to stop enriching the core with more IW actors. The global population would undoubtedly benefit from having fewer criminals, pirates, rebels, guerillas, and insurgents operating within it. And while some of these groups will self-generate, it is possible to limit the self-generation through good social, political, and economic policy. Limiting, reducing, or eliminating the state-sponsored production of proxy irregular forces is a more feasible and realistic proposition. Currently throughout the Middle East, Southeast Asia, South America, and Africa, countless armed groups have been organized, trained, equipped and employed by nations for national objectives. If governments were to stop using proxies, then the IW core would slow

its growth. This is, metaphorically, the stopping of the enrichment of Uranium-238 into weapons grade Uranium-235.

If states actively conducted IW counter-proliferation, by both decreasing IW actor enrichment and reducing their own IW activities, two significant controllable reflectors would be removed. Lessons from conventional warfare and nuclear warfare counter-proliferation can educate this process, and show a path forward to changing global norms on the use of IW. States can recognize that the danger of IW is great both domestically and internationally. Sponsoring IW inside other states for asymmetric competition is increasingly fraught with danger. IW invites retaliation from the target, and this risk of escalation, and of a destructive cycle of violence, is clear. Should counter-IW proliferation norms be accepted in the international community, the effects of power diffusion, plunging, and mimicking will be reduced.

Decreasing the plunging effect created by extensive promulgation could be achieved by reducing the availability or 'advertisting' of IW. Reducing promulgation can be accomplished by either reducing the amount of IW conducted, and/or by increasing the secrecy of IW activities. Reducing the amount of IW operations would mean limiting IW only to circumstances which truly require their use. In a similar vein, nuclear weapons are intended as a weapon of last resort only to be used under the most critical of circumstances. IW should be considered in the same way, only to be used when the ends justify the means. Additionally, an increase in the secrecy of overt, covert, and clandestine IW would proportionally decrease the availability of information on IW, and decrease the 'plunging' effect that revealing such activities has on adversaries.

Beyond simply removing the reflectors, the second effort to address the IW critical mass is the insertion of control rods to help control the reaction. When a nuclear reactor is put into service in a power generation plant, one of the most common methods available to regulate the reaction is the use of control rods. Control rods, made of neutron-absorbing material, are either inserted or removed from the reactor to adjust the rate of the reaction. Metaphorically, IW control rods can be equated to any active measure that seeks to decrease the criticality of IW activity.

These measures include smart power approaches that make use of all the elements of national power—diplomatic, informational, military, economic, financial, intelligence, and law enforcement—rather than relying upon IW to attain policy objectives.¹⁴⁵ Creating counter-IW rules of law, both internationally and domestically, which are backed up by counter-IW actors at the local, national, and international levels, can be sought by the global community. For example, the United States must continue to stringently adhere to the existing IW constraints of law, approval, and oversight. By staying within the existing constraints, and encouraging others to adopt similar constraints. The United States ensures that IW is less likely to tread into illegal, unethical, or immoral areas.

On a global scale, states can create functional bilateral and multilateral treaties or agreements to contain, control, and reduce IW actors and activity. States can seek to regain control of the environment from rogue IW actors by creating an inhospitable environment where a community of states are allied against IW, much the same as when non-state piracy and state sanctioned privateering was essentially defeated by the implementation of an effective law of the sea backed up by willing and cooperative state naval power.¹⁴⁶ In that case, states understood that the ultimate economic benefit would come from a relatively safe and open ocean system where commerce could prosper; in the case of IW, global economics would also prosper with more stable areas and fewer IW actors.

It is also imperative that police, paramilitary, military, and intelligence forces across the globe act as IW neutron absorbers and not producers. These forces must be turned from being reflective lenses which proliferate the growth of IW into absorption material which seeks to eradicate IW. The positive aspect to this approach is that in many cases and places, these forces are already in place and trained to help support, advise, and assist partnered foreign security

¹⁴⁵ US Department of Defense, *Joint Staff, Joint Publication (JP) 5-0 Joint Planning* (Washington, DC: Government Printing Office, 2017), I-1.

¹⁴⁶ Tullio Treves, “Piracy, Law of the Sea, and Use of Force: Developments off the Coast of Somalia,” *The European Journal of International Law Vol. 20 no. 2* (2009): 399-414.

elements. In addition to training stabilizing forces, demobilization programs may also serve as absorbers. Demobilization of IW actors is a key task in limiting the actors available to participate in an IW conflict and to reduce the criticality of the IW core mass.

The third effort required to deal with an IW critical mass is the building of shielding material to protect from the dangerous effects of IW activity. Lead is a common element used by practitioners to shield people from the harmful effects of nuclear radiation. Lead shielding can be seen in most situations where radiation is expected at higher levels, from the nuclear power reactor to the blanket used at the dentist's office during an x-ray. The international community can begin to build shielding material throughout societies to protect from the harmful effects of IW activity. Shielding means that global leaders in politics, economics, and elsewhere understand the effects of IW activity and seek to protect their own and others' populations from the dangers. IW shielding can be created by states and international institutions both domestically and internationally. Shielding populations from the effects of IW begins with communicating and understanding what IW is and what threats it presents to a population. This should make the population less susceptible to participating in IW activities.

In sum, a prescriptive approach to holistically counteract the self-propagating chain reaction of IW includes three recommendations. Global IW actors must first remove IW reflective lenses; this equates to IW counter-promotion, counter-proliferation, and counter-promulgation. Next, global actors must insert IW-absorbing control rods. The building of counter IW actors and structure will decrease the risk of an uncontrollable IW critical mass. Finally, global actors must build protective shielding material to protect societies from the negative effects of IW. Protective shielding includes building institutions and societies that are resistant to destabilizing effect. This can be done by creating a mass understanding of the risks IW poses. All three recommendations should be implemented simultaneously in order to limit the risk of IW criticality and the effect of destabilizing influences.

Conclusion

The IW ‘Demon Core’ is a metaphor used to describe the danger associated with the current uncontrolled and prolific use of irregular warfare as a strategy of global actors. The core represents a large subcritical mass of global state and non-state IW actors. The core mass of actors exists within an enabling contemporary operating environment. Structural factors such as globalization, complexity, increased population, and the information age have contributed to the formation of the mass. Furthermore, state nuclear and conventional warfare hegemony has increased asymmetry and decreased the ability of actors to compete conventionally. The result of this has been the emergence of irregular warfare as a prominent strategy by global actors.

Like a uranium core being pushed towards criticality with neutron reflectors, the IW core mass is also being pushed towards criticality by theoretical reflective lenses. The reflective lenses of promotion, proliferation, and promulgation return the IW actor’s energy back to the core mass, driving other actors to react with increased activity. The cumulative effect of the returning energy is to push the entire IW core towards criticality and an uncontrolled IW reaction. The result of the IW reaction is a negative effect, one which will destabilize domestic and international systems, disrupt and destroy societies, and lead to global entropy.

The theory of IW revolves around the concept of a power imbalance, or asymmetry, between combatants. When such an asymmetry exists, then disarming or destroying a more powerful enemy through direct confrontation—annihilation/attrition—is not a viable strategy, and instead, erosion is likely to be the selected strategy. The strategy of erosion and IW can be seen in the historical campaigns of Washington’s Forage War, Napoleon’s Peninsular War, the Arab Revolt, and during WWII. Erosion has been further codified in the classic writings of Clausewitz, Marx, Mao, and Lawrence. During the Cold War, the United States and USSR frozen from conventional competition by nuclear weapons, engaged in extensive IW. The post-Cold War and contemporary environment have cemented IW a prominent strategy of global state and non-state actors.

A review of IW theory, history, and doctrine makes it clear that a significant number of IW actors have existed over time and continue to exist and operate globally today. The structural factors, core mass, and reflective lenses have diffused the power, capacity and capability, to conduct IW to a sufficiently large portion of the global population in competition. The power diffusion reduces the ability of any single or combined grouping of hegemonic powers to deescalate the reaction.

The danger is that this mass of actors will continue to feed a self-propagating chain reaction of irregular warfare activity that is releasing increasingly dangerous levels of destabilizing effect. The negative effect from violence, social and political instability, is less visible, more difficult to discern, and slower to manifest, yet will ultimately yield as devastating a result as the most visible and destructive forces previously known. This condition has the potential to irrevocably change the global peace and security status quo.

The development of IW theory and practice seen throughout history as well as the IW doctrine of the contemporary operational environment demonstrates that a core mass of IW actors not only exists but continues to be significantly active. This global mass of IW actors exists and operates within an enabling environment which is hospitable to their growth, existence, and strategy. Each action taken by these actors has a disruptive effect. Their actions reflect back to the core mass driving other IW actors to react or respond with their own IW action. The cumulative effect is that the core mass is uncontrollably driving itself towards growth and increasingly destabilizing IW effect.

The theoretical IW reflective lenses provide a cognitive description intended to help understand how IW energy returns back to the core mass and drives reaction. The IW reflective lenses are: promotion—furthering the progress of IW; proliferation—increasing the number of IW actors; and promulgation—making IW widely known, generating a ‘plunging’ effect and pushing the field forward through the mimicking of capacity and capability.

Three prescriptive approaches can be simultaneously taken to control the chain reaction. First, the international community must remove reflective lenses in order to reduce the risk of the core going critical. Removing the reflective lenses is equated with state and non-state IW counter-promotion, counter-proliferation, and counter-promulgation. Reducing state and non-state actors' reliance on IW as a key piece of strategy is counter-promotion. Lessons from how to proceed with IW counter-proliferation, reduction in growth, can be learned from the past experience of nuclear and conventional war counter-proliferation activities, modified for IW. Such lessons would include smart power approaches through all the instruments of national power including diplomacy, economics, and information.¹⁴⁷ Counter-promulgation efforts would include reducing the availability or 'advertisting' of IW by reducing the amount of IW conducted, and/or by increasing the secrecy of IW activities.

Second, the international community must act as if the IW mass has already gone critical, and add control rods in an attempt to absorb current IW activities and slow the process of encouraging these activities. Inserting absorption rods to control the reaction can be likened to creating effective international law, norms, and regulations that discourage IW, backed up by international recourse and sanctions against violators. Functional bilateral and multi-lateral interstate treaties against IW can also be created.

Finally, the international community must build shielding material to protect against the harmful disruptive effect of IW. This is similar to using a lead shield to protect against gamma radiation. Building shielding material can be done domestically and internationally. It must be communicated to all state actors that ultimately they are at a great risk of their own IW activities against their adversaries boomeranging back and attacking their own domestic government. States can also build internal inoculation and resiliency against IW by increasing the population's understanding of IW and coalescing domestically around social and political norms. If these

¹⁴⁷ US Department of Defense, *Joint Staff, Joint Publication (JP) 5-0 Joint Planning* (Washington, DC: Government Printing Office, 2017), I-1

steps—building protection from the harmful effects of a chain reaction while simultaneously refraining from taking active and passive measures to decrease the likelihood of an IW critical mass—are not taken, this paper argues that the global community places itself in significant risk of a disruptive effect that may drastically shift the international system toward a state of conflict and entropy.

Despite understanding the danger, the Manhattan Project scientists continued to ‘tickle the dragon’s tail’ or tease the core towards critical reaction. In multiple incidents their overconfidence led to mistakes which directly resulted in their deaths. The risk from the negative effect of cumulative global IW is as real as nuclear radiation. It is important that global actors recognize that the danger from IW is potentially as high as the danger from conventional and nuclear warfare. The effects, initially less visible, more difficult to discern, and slower to manifest, will yield a significant amount of net negative energy on the global community. If stability is an objective of global actors, then irregular warfare de-escalation through counter-promotion, counter-proliferation, and counter-promulgation must be holistically undertaken along with strategies to reduce conventional, nuclear, cyber, and other disruptive competition. Irregular warfare must not be casually used as a convenient outlet for competition below the threshold of war, because the potential damage of unlimited irregular warfare is significant and lasting.

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