

The Stopping Power of Water: An Outdated Concept?

Written by Pranav Kaginele

This PDF is auto-generated for reference only. As such, it may contain some conversion errors and/or missing information. For all formal use please refer to the official version on the website, as linked below.

The Stopping Power of Water: An Outdated Concept?

<https://www.e-ir.info/2024/03/07/the-stopping-power-of-water-an-outdated-concept/>

PRANAV KAGINELE, MAR 7 2024

Offensive realists claim that states continuously attempt to maximize relative power to achieve security. The goal is regional hegemony or to become the most powerful state in its sphere. Seemingly counter to the theory, once a regional hegemon, the state will attempt to preserve its power instead of attempting global hegemony due to what John Mearsheimer terms 'the stopping power of water.' Simply put, a state's most important source of military power is through its army. The expansiveness of the Pacific and Atlantic makes it an impossibility to move sufficient land power across and between hemispheres. Therefore, a state that achieves regional hegemony will shift from revisionism to become a *status quo power*, aiming to preserve the balance of power in the international order, as it has now become maximally beneficial for the state's survival.

However, advancements in modern military technology force a revision of this contention. Through evaluating the changes in how modern power projection operates, I aim to determine whether oceans still impede cross-hemispheric expansion. How will emerging forms of naval technology, cyber-warfare, autonomous weaponry, and more potentially change this established paradigm? By investigating this question, I aim to discover if it is possible for the 21st century to see the emergence of history's first true global hegemonic power. The paper will begin by defining the stopping power of water as presented in the literature, as establishing a definition will allow accurate characterization of the actions of states. I will then analyze the theory of the stopping power of water through a historical lens. Next, I will examine new and emerging forms of technology that could challenge the established paradigm. Finally, I will analyze the implication of the changing material context on future great power conflicts and the prospect of the first global hegemon.

The Stopping Power of Water in the Literature

The term "the stopping power of water" originates in *The Tragedy of Great Power Politics*, in which Mearsheimer (2001) uses the concept to make the strong claim that the vastness of the oceans on Earth "makes it impossible for any state to achieve global hegemony" (p. 84). Therefore, great powers, acting in an offensive realist manner, attempt only to achieve regional hegemony in areas they can access by land. The chain of reasoning for this argument begins with land forces as the predominant form of power projection over sea and airpower. Although navies and air forces can coerce adversaries through blockades or strategic bombing campaigns, only its army uniquely enables a state to *conquer* and *control* the land (p. 86).

This argument relies on conquering a state being a much more attractive option than attempting to coerce that state into surrender. Mearsheimer contends that coercion cannot win a major war against other great powers since leaders will refuse to surrender in the face of even great losses (pp. 86-87). Conquest is desirable but is nearly impossible across hemispheres, as amphibious landings work only in particular circumstances: when the rival great power is already on the brink of collapse or when the armies of the great power are thinly stretched (pp. 118-119). Additionally, the historical record demonstrates that insular great powers, or those surrounded by water, have historically never been invaded. Continental great powers have only been invaded overseas once when France and the U.K. attacked the Crimean Peninsula in 1854 (p. 127). According to Mearsheimer, the United States, the only true regional hegemon in modern history, has never attempted conquest in the Eastern Hemisphere and does not attempt cross-hemispheric power projection nearly to the same extent it does in the West.

The Stopping Power of Water: An Outdated Concept?

Written by Pranav Kaginele

The evidence to support the inadequacy of independent coercion also appears robust. Starting with sea power, Mearsheimer dedicates the most significant amount of time to commenting on the history of blockades, as they are the primary means to project naval power. He argues that recycling, stockpiling, and substitution limit blockades' impact, for instance, in the case of the United Kingdom in both World Wars or Japan in World War II (pp. 94-95). Additionally, blockades rarely fail to turn a state's population against the government and can cause the people to rally behind the state even more, as happened in the Japanese instance (p. 95).

Air forces independently project power through strategic bombing campaigns, which Mearsheimer argues follow a similar logic to blockades. Strategic bombing aims to inflict damage on a country's population and economy, thereby kneecapping its military. In addition, strategic bombing could also be utilized for a decapitating strike against opposing political leaders, effectively halting its war effort. This logic has also been apparently empirically disproven, as in the five cases where a great power has strategically bombed another great power – Germany on Great Britain in both World Wars, the U.K. and U.S. bombings of Germany and Italy in WWII, and the U.S. bombings of Japan in WWII – air power had either little effect, or simply finished off an already fading adversary (p. 99).

Based on these observations about warfare, two things must remain true for the stopping power of water to remain a salient feature of great power politics. First, conquest must still be a more attractive option than coercion; if coercive power has become advanced enough for a great power to submit one of its peers, then Mearsheimer's suppositions about the primacy of land power no longer have explanatory force. Second, a great power must still be unable to mobilize sufficient land forces across hemispheres for successful amphibious assaults. The capacity to do so would enable a great power to conquer another great power without necessarily relying on independent air or sea coercion. The following two sections of this paper will investigate these potential falsifications of the stopping power of water by examining changes in military technology and force structures in the past two decades.

Advancements in Coercive Capabilities

Mearsheimer's framing of air and sea power as not being able to coerce an adversary into submission independently is an unreasonable burden for determining whether the stopping power of water is still present. For instance, Mearsheimer discounts cases such as the United States bombing and blockade of Japan in WWII because he argues that these only combined with land victories to bring about Japan's surrender (p. 94). In most modern conflicts, however, the battles are seldom fought or won on the sole basis of one of the three types of military power: land, air, and sea can and do supplement each other or act in unison as force multipliers. Due to this, I will not judge advancements in these warfighting domains in a vacuum but rather how they may function as part of a larger military strategy. I will also analyze an emerging fourth avenue of warfighting: cyber. While it is distinct from the other three categories in that it does not directly physically harm the adversary, it still provides important coercive capabilities to an aggressor that are increasingly relevant in the modern context. I will then determine whether these advancements may possibly allow a great power to coerce another into surrender.

Air Power Advancements

Developmental trends in 21st-century air power have posited air forces as the potential weapon of choice in future conflicts. Air power technology is becoming faster, more precise, and more automatized, promising low casualties for the user while maximizing returns. Perhaps the most critical developments in this arena include the growing usage of uninhabited combat aerial vehicles (UCAVs) and the integration of artificial intelligence systems into these systems (Kainikara, 2018).

In the past two decades, UCAVs have been used extensively. In their modern form, these devices were initially researched and developed by the U.S. and Israel and then first used in a significant capacity in Operation Desert Storm, where the Department of the Navy famously claimed that "at least one UAV was airborne at all times." Since then, the United States has expanded its usage of drone warfare, specifically in the Middle East, to conduct counterterrorism strikes as part of the War on Terror. However, more interesting to this paper are the cases of the Turkish drone attack in Syria, drone operations in the 2020 Nagorno-Karabakh war between Armenia and Azerbaijan, and extensive drone attacks in the Russian invasion of Ukraine in 2022. These three cases may provide

The Stopping Power of Water: An Outdated Concept?

Written by Pranav Kaginele

insight into howUCAVs may offer a new dimension to airpower in future state-based conflicts and are worth examining more closely.

Turkey usedUCAVs for the first time in a large-scale coordinated attack in a state-based conflict during Operation Spring Shield in the Syrian Civil War (Urcosta, 2020). Russia and the Russian-backed Syrian Air Force had conducted an airstrike against Turkish forces in Balyun. As a response, Turkey launched Operation Spring Shield to end Syria's advancement on the Turkish-backed rebels and bring about a ceasefire with Russia. Operation Spring Shield was the first to employ drones in a swarm, as well as diverge them from traditional roles to conduct 'sniper' strikes on specific people and groups (p. 54). The operation was a massive success, destroying numerous Russian and Syrian military targets, air defense systems, and troops. Additionally, the targeted strikes managed to eliminate two brigadier generals, a colonel, and foreign fighters from Hezbollah and Iran.

There are several important takeaways from this example. First, the cost-efficient nature of these strikes stands in stark contrast to manned air forces. Even though Turkey lost six drones, they created far more losses in the adversary forces with no human casualties of their own. They may loiter in areas for far longer than any manned aircraft can, gathering information and waiting for the opportune moment to strike. Additionally, small and cheap drone swarms used in accompaniment with more advancedUCAVs can effectively overcome air defenses while eliminating the potential human cost. Finally, the effectiveness of the 'sniper' missions in eliminating the specific targets that the drones set out for stands in stark contrast to previous failures of decapitating strikes. Mearsheimer notes that with the exception of one Russian decapitating strike in Chechnya, these attempts have largely failed (Mearsheimer, pp. 108-109). However, Turkey's successes in Syria present an opportunity for a potential shift from this established paradigm.

Azerbaijan's tactics in the Nagorno-Karabakh conflict reinforce these conclusions. Their extensive use of the Harop, a loitering munition created by Israel, along with Turkish-made TB-2UCAVs, enabled them to inflict heavy damage on Armenian assets while using minimal ground forces or traditional air forces (The Economist, 2020). Loitering munitions like the Harop are capable of independently flying around territories before kamikaze-striking air defense systems, while the TB2 drones, the same used in Spring Shield, allowed Azerbaijan to decimate tanks and armored vehicles. The most important takeaway from Nagorno-Karabakh, though, is that it further exposes the limitations in the way Mearsheimer evaluates the effectiveness of different military platforms. Drone strikes, when synchronized with artillery attacks from Azerbaijan, were devastatingly lethal (Shaikh and Rumbaugh, 2020). The missile attacks on the air defense system multiplied the effectiveness of theUCAVs, demonstrating the effectiveness of multi-platform warfare.

The Russia-Ukraine war offers a slightly different perspective onUCAVs, namely, how a smaller nation may utilize drones to offset military disadvantages and defend itself from a larger power. While Russia has begun using drones to conduct tactical and strategic strikes against Ukraine, it appears as though Ukrainian TB-2s, as well as cheap commercial drones, have inflicted much more damage on Russian forces, including sinking the flagship *Moskva* of Russia's naval fleet in the Black Sea (Kallenborn, 2022). This is all while Ukraine only ranks fortieth in the world in military spending, compared to Russia's third. Ukraine has also successfully experimented with different drone tactics and technologies, including launching drones from different places to converge at the same target, neutralizing detection systems, making drones more autonomous, and neutralizing jamming systems. Finally, Ukraine offers a counter to previous criticisms ofUCAVs, namely that they are only effective against smaller, under-resourced nations. Russia, for all the criticism levied on its Ukraine strategy, is certainly the opposite of under-resourced in terms of its military and has extensive experience with drone attacks in Syria. Yet, Ukrainian drone attacks still proved to be effective, especially when combined with land operations and anti-tank missiles.

The increased integration of autonomous capability intoUCAVs is also an imminent possibility. However, it is still extremely difficult to predict how autonomous drones may function and what their implications for warfare are. There are still questions to be answered about whether humans ought to remain in the loop or whether artificial intelligence will entirely replace the need for a human operator. Additionally, it is yet to be seen what the roles of theseUCAV-AI systems will be and if they will vastly differ from the existing roles thatUCAVs fulfill. At the very least, given artificial intelligence's cognitive capability being beyond human limits, it seems to be a certainty that those existing roles may

The Stopping Power of Water: An Outdated Concept?

Written by Pranav Kaginele

be carried out more effectively once AI is sufficiently advanced.

Sea Power Advancements

Advances in naval technology also shift the viability of the stopping power of water theory, albeit not as drastically as air power. The two main coercive possibilities of sea power, as recognized by Mearsheimer, are naval bombardment and blockading. In addition, they may provide transportation to armies through amphibious assaults and landings, as well as troop transports to allies. Mearsheimer dismisses naval bombardment as “pinprick warfare” that does not inflict much damage or consequence (p. 89). While he is correct that bombardment may be hard-pressed to create independent results, it can serve a significant role in amphibious operations. This will be discussed further in the following section. Secondly, while Mearsheimer is correct that blockades may have limited coercive power in most instances, there are a few circumstances in which they can be quite formidable.

Specifically, blockades are most effective against states that rely heavily on the oceans for vital resources. Mearsheimer lists eight instances of great power blockades (pp. 90-94). He writes that the first, the French blockade of the U.K. during the Napoleonic Wars, had little effect. The next two, the U.K. blockade of France and the French blockade of Prussia, both failed. However, these great powers were not reliant on the sea for resources. The next two are debatable. Mearsheimer considers the German blockade of the U.K. and the Allied blockade of Germany during WWI to be failures. The U.K., he argues, ultimately won the war despite the blockade, and the Germans lost on the battlefield, not because of the blockades. While the German U-boat campaign against the British did end in failure, the case is more complex than simple blockade ineffectiveness. To begin, Germany entered the war with very few advanced U-boats, with only 25 capable of operating in blue water environments (Lundeberg, 1963). Additionally, the blockade was not one single effort but rather occurred in three waves, with the U-boats being recalled twice due to diplomatic pressures. By the third attempt, Britain had gained more advanced countermeasures from the Americans and adopted the convoy system, which allowed them to neutralize the U-boat threat.

The British and American blockade of Germany, on the other hand, was much more successful than Mearsheimer credits. The blockade diminished the possibility of German land forces continuing a concerted war effort. Imports had fallen 55 percent, and there were vast shortages in food, coal, metals, and agricultural supplies (The National Archives, 2007). This did not create a ‘rally around the flag,’ as Mearsheimer suggests might happen in times of blockade. Rather, there were riots and looting across Germany and Austria. While there were minor direct effects on the front lines, there was a diminished ability to resupply the troops with additional manpower or supplies, which ultimately brought the Kaiser to the conclusion that he could not continue the war. The European WWII cases brought up by Mearsheimer also fall into the same traps of either being a poorly executed blockade or a blockade of an unsusceptible country rather than indicting a blockade’s intrinsic usefulness. However, the successful Japanese example seems to back up the conclusions that can be drawn from the blockade of the Central Powers in WWI. When appropriately executed against a susceptible state, blockades can have significant downstream effects on not only a state’s civilians but also its ability to continue a war effort, contrary to Mearsheimer’s findings. Even if they must be used in combination with land or air power to achieve desired results, this doesn’t diminish their significance as an effective coercive tool in a great power conflict.

This is especially pertinent given 21st-century advancements in naval technology. Similar to aerial warfare, large strides have been made in underwater unmanned warfighting capabilities. For instance, Ukraine has pioneered new unmanned loitering underwater drones in response to Russia’s Black Sea fleet (Kilner, 2023). These drones can reportedly autonomously loiter in a given area for up to three months while waiting to torpedo a ship. These devices are quite inexpensive and pose a large threat to Russia’s fleet. It is easy to imagine how this technology could potentially be employed by a great power for a blockade. By utilizing autonomous loitering underwater torpedoes with more advanced target selection capabilities, the need for many crewed ships to enforce a blockade may be negated. Instead, large numbers of these torpedoes could be stationed around a blockaded state, waiting for an attempted trespass, not needing to be replaced or refueled for long periods of time. This would make a blockade much more feasible and much easier on the aggressor.

More advanced autonomous submarines, such as the United States Orca extra-large unmanned undersea vehicle

The Stopping Power of Water: An Outdated Concept?

Written by Pranav Kaginele

(XLUUV), also offer immense benefits for achieving naval superiority (Newdick, 2023). These submarines can autonomously conduct operations beyond acting as simple loitering munitions for months without human intervention. These submarines are far smaller and stealthier than manned submarines, allowing them to lay mines, conduct surveillance, electronic warfare, and sweep mines. Additionally, they may carry cruise missiles, torpedoes, and drones. These capabilities will massively increase the ability of a great power to achieve strategic objectives during a blockade, such as shutting down key ports, shipyards, and commerce lanes.

Cyber and Information Operations

In addition to the air and sea power domains of the military, there is an important third dimension that Mearsheimer does not account for – information and cyber. In a testimony to Congress on *The Role of Special Operations in Great Power Competition*, Dr. Seth Jones pointed out the new reality of great power competition as primarily taking place through 'irregular warfare' (1990). These activities would be warfighting strategies that stop short of traditional warfare, which would include information and cyber operations. Nuclear weapons, economic interdependence, and the immense costs of fighting a conventional war dampen the risk of a traditional war in the modern age. Therefore, the importance of irregular warfighting capacity has been raised. A notable example of this kind of attack is the STUXNET computer worm created by the United States and Israel through their collaborative Operation Olympic Games. The worm was designed to seek out the type of computers used to run centrifuges at nuclear facilities. It was then sent to the Iranian nuclear program, where it caused significant damage to the centrifuges by rapidly changing their rotational speeds, bringing many of them offline (Zetter, 2014). While this was just a setback in overall Iranian nuclear enrichment activities, it demonstrates how cyberattacks may be used destructively by and against nation-states.

A more successful independent cyber strategy could potentially center on crippling opponents' cyber capacities. According to James Lewis (2021), coercive warfighting has been successful when focusing on destroying the ability of an adversary to fight back and unsuccessful when focusing on civilian or other strategic targets. For instance, during the Battle of Britain, the Luftwaffe made significant progress while focusing on destroying British military bases and planes but faltered when it switched to attacking the British population. Great powers attempting to coerce each other could take cues from this logic and apply them to cyberspace operations by combining offensive competence and defensive deterrence (Lindsay and Gartzke, 2016). This would mean first building up a detection capacity to allow for retaliation, a reputation for denial ability on cyber-attacks, and deception capabilities to reinforce retaliation and denial, as well as luring targets to favorable positions. Additionally, attackers can use cyberattacks to force compliance with demands or even use cyber operations to signal at cross-domain attacks.

Just like with air and sea power, though, judging cyber and information operations by how well they may independently coerce an adversary does not capture the full picture. The most destructive consequences of cyber will come from their coordinated use with other domains of warfighting. In 2008, Russia preceded its land incursion into Georgia with massive distributed denial-of-service (DDoS) attacks against Georgian internet servers, presumably to disconnect the country from the outside world. The country attempted cyber-attacks alongside traditional military operations in its invasion of Ukraine in 2022. However, Russia's cyberattacks were more strategic operations on Ukrainian civilians rather than tactical strikes against Ukrainian military targets (Schulze and Kerttunen, 2023). As observed before, cyber operations would likely have been more successful if they focused on Ukrainian military targets. Additionally, it is possible to imagine a scenario where malware was used to leak the geolocations of artillery, allowing for targeted strikes by Russian air or land forces. Similar forms of cyber operations may be used to augment potential decapitation strikes, multiplying the lethality of such attacks. This is a drastic shift from previous iterations of warfare, where such information would have to be collected through physical reconnaissance or surveillance.

The Troop Transportation Problem

The second impact of changing material contexts on the stopping power of water implicates the power-projection capacities of armies. As discussed before, the conventional wisdom is that the stopping power of water sufficiently limits the effectiveness of amphibious operations to such an extent that a great power cannot seriously consider

The Stopping Power of Water: An Outdated Concept?

Written by Pranav Kaginele

launching a conquest of another great power across water. Therefore, the power-projection capacity of a great power's land armies ends where the ocean begins. Even if the force is large, and possesses advanced capabilities, it will pose minimal threat to a great power in the opposite hemisphere. The historical record, for the most part, appears to back up this claim. The homeland of great powers surrounded by water (insular great powers) has never been invaded, nor has it attempted to invade other great powers across the ocean. Conversely, the history of continental great powers, those that are surrounded by land, has been markedly more violent.

When examining the intricacies of the evidence, though, there appear to be significant and growing holes in the stopping power of water for seaborne operations. During WWII, the most recent instance of great powers conducting amphibious assaults against the territories of others, even Mearsheimer admits that the attackers were overwhelmingly successful, though he attempts to explain the cases away (pp. 123-125). Still, the sheer volume of evidence is immense. Four of the five Allied amphibious operations in Europe Mearsheimer identified were successful. Additionally, he identifies fifty-two amphibious assaults in the Pacific Theater against Japanese-held islands, the vast majority of which were successful. Preceding that, Japan had also conducted fifty-odd amphibious assaults against British and American-held islands in the Pacific, which were, again, almost all successful. Mearsheimer argues that these cases do not disprove the stopping power of water for two reasons. First, the successful amphibious campaigns were almost all preceded and supported by air artillery, which aided them against coastal defenses. Secondly, the assaults occurred in situations where the great power could not adequately defend the area where the attacker landed troops (pp. 124-125).

These two reasons are both invalid for dismissing these cases as evidence against the stopping power of water on armies. The first argument about air support fails for the same reasons why the dismissal of air or sea coercion as incapable of working is invalid. In times of conflict, mediums of warfighting are inextricably tied and, for maximum effectiveness, are used in joint coordination. If amphibious operations have a high rate of success when coupled with cover from air forces, then it is evidence of the effectiveness of a new strategy of seaborne invasion that overcomes water's stymying influence. This evidence simultaneously demonstrates the possibility of establishing temporary air superiority over a limited coastal area for the purposes of an amphibious assault. Following amphibious battles seemingly demonstrate that overwhelming air superiority isn't even necessary. The Battle of Inchon during the Korean War, nearly universally considered to be one of the greatest strategic operations in military history, was preceded by both aerial and naval bombardment, if not definite superiority (Britannica, 2022). The same was true of the Operation Musketeer amphibious assault during the Suez Crisis (Wilfred, 2006). Considering the advances in aerial combat technology discussed before, there is no reason why this observation cannot continue to remain true for future amphibious assaults.

The second argument, about inadequate defense of coastal areas, also falters. The problem with this claim is that it seemingly collapses into Mearsheimer making a range of excuses for defending great powers and grouping them to prevent a fault in the stopping power of water theory. His excuse for Germany in WWII is that they were already engaged in defending a large area across two fronts and, therefore, were vulnerable to concentrated assaults on small areas of coastline (p. 123). The excuse for Allied forces in the Pacific Islands defending against Japan is that they were isolated. The excuse for Japanese forces defending the same islands against the American military is that the Americans had more air support and were able to forcibly cut off reinforcements from coming to the islands (p. 125). These excuses do not adequately explain why these numerous cases of successful amphibious invasions represent exceptions to the rule.

Rather, these cases seem to simply demonstrate strategic features that make an amphibious assault more likely to succeed. Amphibious attacks concentrate assaults on small areas as a matter of strategy. Positioning these as inexplicable exceptions rather than smartly conducted operations is a mistake. A great power attempting to establish regional hegemony in a hemisphere will have to control large swaths of territory in that hemisphere. Suppose it is indeed possible to conduct concentrated amphibious operations against those extended territories and gain a foothold on land. In that case, it represents a step towards establishing land dominance in the state and, therefore, the opposite hemisphere. Forced isolation through blockades and air and naval supremacy is not an excuse but a strategic tool an attacking force may use against a rival great power.

The Stopping Power of Water: An Outdated Concept?

Written by Pranav Kaginele

There are also two potential solutions to the question of whether it is indeed impossible to invade the homeland of a great power amphibiously. First, it is unclear whether, for the foreseeable future, such an operation would at all be needed. Russia and China, the United States' main peer competitors in the other hemisphere, are both continental great powers and could be invaded over land. The United States possesses many allies to the West of both states and could possibly convoy troops to those states. Additionally, if amphibious operations are indeed more effective when the defending country is forced to defend multiple fronts, it is feasible to imagine how the United States may instigate such a scenario. Secondly, Mearsheimer names a scenario where the homeland of an insular great power could have possibly been invaded in Japan. In this case, the U.S. had planned to invade Japan in 1945 if they did not surrender. Mearsheimer opines that this amphibious operation would have been successful due to Japan's aerial, naval, and infantry forces being severely depleted at that point (p. 125). Additionally, their economy had been wrecked by the war. In a hypothetical great power war, it can be imagined that an amphibious invasion could be conducted under similar circumstances toward the end of the conflict.

Water, Still an Obstacle?

Coercive capabilities have undoubtedly undergone rapid advancements in the past two decades. Turkey and Azerbaijan's successful UCAV-led aerial attacks on Syria, Russia, and Armenia, respectively, demonstrate how these new technologies increase the ability of a state to coerce an adversary into concessions. With the introduction of unmanned underwater submarines and drones, the potential for extensive, prolonged, and more effective blockades has increased. Additionally, cyber and information operations can effectively act as a force multiplier for joint operations with air, sea, and land forces, as well as being an independent tool of coercion. These technologies and strategies are still young but, with continued refinement, may additionally tip the scales for the favored warfighting strategy from conquest to coercion.

Along with this, additional analysis of Mearsheimer's argument against the possibility of cross-hemispheric land power projection reveals that while the stopping power of water may not be defunct, it is undoubtedly not very robust. Through aerial support by the attacker and overstretch by the defender, amphibious operations have achieved a level of success that may be translated to a potential successful invasion of a great power's homeland in the future. Even if we cannot tell whether this invasion would be successful, Mearsheimer's theory of the stopping power of water rests on armies not having sufficient power-projection capabilities across oceans. These cases reveal that armies may certainly inflict serious damage while crossing water and, therefore, may serve an important role against a great power in the opposite hemisphere.

These two findings may be combined to formulate a hypothesis that in the present day, the oceans do not pose nearly as large of an obstacle to a regional hegemon attempting to venture further outwards as they have in the past. For sure, water as a factor in warfare cannot be completely ruled out. It certainly creates some advantage for the defending state and poses a problem that the attacking state must solve. However, modern material contexts have shrunk the effects of the oceans to an extent where the defender's advantage is not insurmountable, and the attacker's disadvantage has solutions. These answers may come from coercive capacity, strategic conquest, or, more likely, a combination of the two. As discussed before, if offensive realism is to be believed, global hegemony would be the rational goal of a regional hegemon if possible. In practice, whether the stopping power has been redacted enough to allow sufficient power projection to establish hard-power dominance across a hemisphere can only be determined when a future regional hegemon makes an attempt. Given these findings, though, the premise that this endeavor would be an inevitable failure is now far from certain.

References

Biggs, A., Xu, D., Roaf, J., Olson, T. (2021). *Theories of Naval Blockades and Their Application in the Twenty-First Century*. Naval War College Review: Vol. 74: No. 1, Article 9.

Britannica, T. Editors of Encyclopaedia (2022, September 8). *Inch'on landing*. *Encyclopedia Britannica*. <https://www.britannica.com/event/Inchon-landing>

The Stopping Power of Water: An Outdated Concept?

Written by Pranav Kaginele

- Kainikara, S. (2018). *Airpower in the 21st century: Enduring trends and uncertain futures*. Australian Defense Force Journal.
- Kallenborn, Z. (2022, May 12). *Seven (Initial) Drone Warfare Lessons From Ukraine*. Modern War Institute at West Point.
- Lewis, J. A. (2021, March 4). *Towards a More Coercive Cyber Strategy* [Remarks]. U.S. Cyber Command Legal Conference, Fort George G. Meade, MD.
- Lindsay, J. R., Gartzke, E., Greenhill, K. M., & Krause, P. (2015). *Coercion through Cyberspace: The Stability-Instability Paradox Revisited*. Oxford University Press, Forthcoming.
- Lundeberg, P. K. (1963). *The German Naval Critique of the U-Boat Campaign, 1915-1918*. *Military Affairs*, 27(3), 105-118.
- Mearsheimer, J. J. (2001). *The Tragedy of Great Power Politics*. W.W. Norton & Company.
- Schulze, M., Kerttunen, M., (2023). *Cyber Operations in Russia's War against Ukraine*. SWP Comment.
- Shaikh, S., and Rumbaugh, W. (2020). *The Air and Missile War in Nagorno-Karabakh: Lessons for the Future of Strike and Defense*. CSIS.
- The Economist Newspaper. (2020, October 8). *The Azerbaijan-Armenia conflict hints at the future of war*. The Economist. <https://www.economist.com/europe/2020/10/08/the-azerbaijan-armenia-conflict-hints-at-the-future-of-war>
- The National Archives. (2004). *Spotlights on History – The Blockade of Germany*. www.nationalarchives.gov.uk
- The Role of Special Operations in Great Power Competition: Statement before the House Committee on Armed Services on Intelligence and Special Operations*, 118th Cong. (2023) (testimony of Dr. Seth G. Jones).
- Urcosta, R.B. (2020). *The Revolution in Drone Warfare: The Lessons from the Idlib De-Escalation Zone*. *European, Middle Eastern, & African Affairs*.
- Wilfred, P.D., (2006, June 12). *Suez Crisis: Operation Musketeer*. HistoryNet. <https://www.historynet.com/suez-crisis-operation-musketeer/>.
- Zetter, K. (2014, November 3). *An Unprecedented Look at Stuxnet, the World's First Digital Weapon*. *Wired*. <https://www.wired.com/2014/11/countdown-to-zero-day-stuxnet/>