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Master's Thesis of International Studies

The U.S. Freedom of Navigation Operations in the South China Sea and the Strategic Importance of the Maritime Features

남중국해에서의 미국의 항행의 자유 작전과 남중국해 섬들의 전략적 중요성

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Abstract

In October 2015, the U.S. broke the three-year old hiatus and sailed within 12 nautical

miles of a Chinese-claimed maritime feature in the South China Sea (SCS) with its

Freedom of Navigation Operation (FONOP). Starting from that point until 2019, there

have been 21 public FONOPs in the SCS. These operations are often talked about in

general terms, but their relationship with the location around which they are conducted

remains ambiguous. Through collecting data on the operations and China's reaction to

them this study attempts to explicate the relationship between the U.S. choice of location

for FONOPs and the strategic importance of the maritime features as well as the

relationship between the Chinese reaction to FONOPs and the strategic importance of

the maritime features. At the end, the study shows that while playing an important role,

the strategic importance of the maritime features is not the only criterion at play in the

U.S. location choice or Chinese reaction. By shedding light on an under-discussed topic

and conducting a holistic examination using scattered data, this study presents possible

directions of further research and emphasizes the necessity of continued robust studies

of the topic.

Keyword: U.S. Freedom of Navigation Operation, South China Sea, U.S.-China

relations, UNCLOS

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I. Introduction

1. The South China Sea and the Disputes

The South China Sea (SCS) includes a few hundred of various maritime features such as islands, shoals, cays, and reefs often categorized into Spratly Islands, Paracel Islands, Pratas Island, Macclesfield Bank, and Scarborough Shoal. However, many of these features are partially submerged uninhabitable land masses incapable of supporting economic activities. These features are small in size as well; for example, the total land area is of the entire archipelago of Spratly Islands is less than 5 square kilometers and that of Paracel Islands is 7.75 square kilometers (EIA 2013).

Economically, the SCS is an extremely important transit route. Every year, approximately 1/3 of the total world trade volume passes this sea, amounting to the estimated \$3.4 trillion worth of international trade (Kim 2018; O'Rourke 2020). The fast-developing economies in Asia are also heavily dependent on this route for their energy; in 2017, roughly 40% of global liquified natural gas trade and 30% of global maritime crude oil trade transited through the sea. Furthermore, while the lack of sufficient exploration entangled with territorial disputes poses difficulties in determining the amount of natural resources in the region, the U.S. Energy Information Administration (EIA) estimates that the SCS possesses 11 billion barrels of oil and 190 trillion cubic feet of natural gas (EIA 2013).

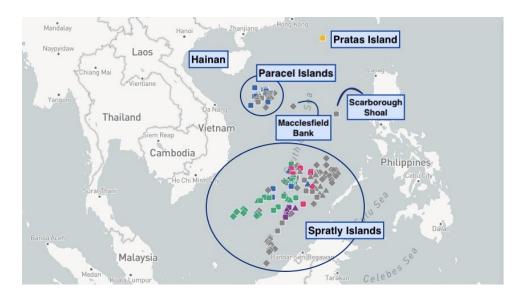


Figure 1. The island groups in the South China Sea (AMTI Island Tracker).

As exciting and important this sea is, the interests entangled with it are also complicated. There are maritime territorial disputes over the various features involving China, Vietnam, Taiwan, Philippines, Malaysia and Brunei, and most claimants have been engaging in island and facility-building activities to enhance their claims. Vietnam was the first to undertake such activities in 1976 when it built aircraft landing facilities in Paracel Island, followed by Malaysia which built a landing strip on Swallow Reef. Taiwan and the Philippines also each built a 1300-meter landing strip in Ituaba and Thitu, respectively. However, according to a Congressional Research Service report, other claimants' island-building and base-construction activities in the region are 'dwarfed in size' by those of China's; currently, China has 20 outposts in Paracel Islands, 7 in Spratly Islands and has created 3200 acres of new land in total (O'Rourke 2020; Song 2014).

Separately, there are also a maritime zone disputes between the U.S. and China regarding what types of activities a coastal state can regulate in what zones. In these disputes, United Nations Convention on the Law of the Sea (UNCLOS) plays a key role as it is an agreement between 150 countries that stipulates the bounds of different zones and acceptable activities within each zone as well as the conditions under which a maritime feature can generate them (O'Rourke 2020). The agreement specifies some of the key terms that are crucial in the contention between the two countries. First, Article 3 of UNCLOS shows that a coastal state has the right to establish a territorial sea up to 12 nautical miles measured from its baselines. While UNCLOS grants an exception for drawing a straight baseline in Article 7, in Article 5, it stipulates that the normal baseline is the "low-water line along the coast as marked on large-scale charts officially recognized by the coastal State" (UNCLOS 1982). On the other hand, Articles 55-58 of UNCLOS show that as an area that can extend up to 200 nautical miles from the baseline, the exclusive economic zone (EEZ) provides the relevant coastal state with sovereign rights to explore, exploit, conserve and manage natural resources of the area as well as the jurisdiction regarding the establishment and use of artificial islands, installations, and structures, marine scientific research and others. In an EEZ, all states enjoy the freedom of navigation and overflight. Finally, Article 19 of UNCLOS defines innocent passage to be a vessel passing through the territorial sea continuously and expeditiously without any activities unnecessary for the passage "so long as it is not prejudicial to the peace, good order, or security of the coastal State" (UNCLOS 1982).

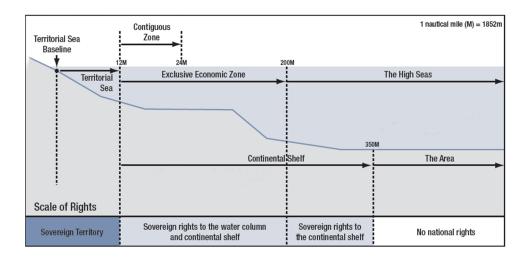


Figure 2. The demarcation of the different maritime zones (Arctic Council 2009).

The maritime zone disputes between the U.S. and China stem from different interpretations of what is possible where. For example, while the US believes that UNCLOS allows military vessels to pass through territorial seas as long as it is innocent passage, China, alongside a few other countries, requires military vessels to give prior notification or obtain permission even for innocent passage. These disputes reflect the more comprehensive interpretation of the concept of freedom of navigation by the U.S. and the narrower interpretation of it by China (O'Rourke 2020). While the U.S. worries that China's narrow interpretation limits American maritime activities and increases the Chinese control of the SCS, China often claims that the U.S. uses freedom of navigation as an excuse for conducting close surveillance on China's coastlines, islands, and reefs (Kuok 2016).

On the other hand, there is also a dispute surrounding China's adoption of 'straight baseline' in 1996 around Paracel Islands which claims internal waters inside a ring formed by connecting the outer most features of the Parcel Islands. Additionally,

China also claims the 12 nautical miles around this ring to be its territorial sea (Glaser *et al* 2016). Such an establishment is illegitimate based on UNCLOS terms which grant the right to draw a straight baseline only to an archipelagic state with a certain land to water ratio, pertaining only to a naturally formed feature that can sustain economic activities and human life without artificial enhancement (UNCLOS 1982 Article 7).

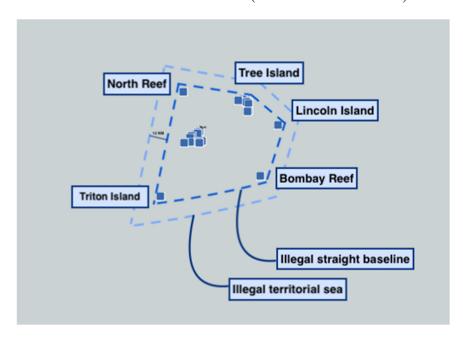


Figure 3. China's claims around the Paracel Islands (AMTI Island Tracker).

2. FONOPs

First initiated in 1979, U.S. Freedom of Navigation Operations (FONOPs) are a tool the U.S. uses to challenge various excessive maritime claims and to serve the U.S. interest in preserving international laws (Kuok 2016). Through these operations, the U.S. demonstrates its resolve to "fly, sail, and operate wherever international law allows, regardless of the location of excessive maritime claims and regardless of current events"

(O'Rourke 2020). Despite the criticism of their limited ability in challenging territorial claims, FONOPs are not designed to make such challenges; FONOPs are designed to only challenge excessive maritime claims inconsistent with UNCLOS.

There are generally two types of claims a FONOP challenges; the first is "claims inconsistent with the legal divisions of the ocean and related airspace" and the second is "restrictions on navigation and overflight rights" (Freund 2016). For instance, in the SCS, when a U.S. FONOP challenges China's straight baseline claims around the Paracel Islands, the operation is challenging a claim that falls into the first type. This is because as previously mentioned, based on Article 3 of UNCLOS, the U.S. believes that China does not have the right to draw a straight baseline because it is not an archipelagic state. On the other hand, in the case of the SCS, the second type of excessive maritime claim encompasses prior notification requirement for military vessels conducting innocent passage within a claimed territorial sea. This claim is purported not only by China but also by Taiwan and Vietnam. Hence when a U.S. FONOP conducts an innocent passage operation within 12 nautical miles of a feature claimed by any of these three countries without prior notification, it is challenging the second type of excessive maritime claim.

3. Research Question

In the process of examining separate episodes of FONOP in the SCS, a few questions emerge. For instance, while there are many different features in the SCS, do the U.S. FONOPs focus on a few particular? Does China react more vigorously to FONOPs around certain features? Is there a pattern in these and if so, does it indicate that certain islands are more strategically important compared to the others?

4. Research Design

In examining these questions, this thesis first conducts a literature review and highlights the lacuna in the existing literature and the ensuing necessity of exploring the research questions in chapter 2. Chapter 3 introduces the method of this research in detail. The following chapter presents the collected data while chapter 5 analyzes the data attempting to identify any patterns in the choice of location and in the location-reaction relationship. Finally, chapter 6 discusses the implications of the result and limitations of the study, concluding with suggestions for further studies.

II. Literature Review

Since this thesis aims to identify a connection between the location of the U.S. FONOPs and the strategic importance of the maritime features in the SCS, the literature review section will concern two topics; U.S. FONOPs in the SCS and the strategic importance of the maritime features in the SCS.

1. The U.S.-China Dispute in the SCS as a Developed Country-

Developing Country Tension

In the existing literature, the U.S.-China tension in the SCS is largely understood in two aspects; as a traditional tension between a developing country and a developed country over the interpretation of UNCLOS, and as a tension between the two countries for regional hegemony. In discussing the former, the traditional debate between *mare liberum* (free sea) and *mare clausum* (closed sea) must be explained, as many scholars see the maritime tension between the U.S. and China in the SCS as an extension of it. The term *mare liberum* first emerged when the Dutch jurist Grotius coined the term to counter the established maritime power Portugal and further the Dutch commercial interests by asserting that the sea cannot be monopolized. In response to this, the British jurist Selden coined the term *mare clausum* to defend his island country's interest in protecting its coasts. However, while the UK originally argued for more littoral state control of the coasts and restrictions with *mare clausum*, it later shifted to supporting *mare liberum* with its establishment as a maritime power (H. Kim 2016; Lee 2018).

Alongside this theme, Kim Hwa-jin analyzes the U.S.-China tension in the SCS through the lens of the changing dynamics in the international arena. Kim delineates that the SCS dispute is the *mare liberum* and *mare clausum* projected in contemporary international politics (H. Kim 2016). Kim concludes that the core of it is the two countries' rivalry as an established power and an emerging power and their competition for regional hegemony. Similarly, through a historical examination of the *mare liberum* vs *mare clausum* debate, the concept of freedom of navigation and the legislation of UNCLOS, Lee Hak-su provides a relational mode to analyze the U.S.-China maritime dispute (Lee 2018). Michael Paul also recognizes that the current dispute stems from different interpretations of freedom of navigation and highlights the striking resemblance between this contemporary dispute and the historical *mare liberum* vs. *mare clausum* debate. With such an analysis, Paul concludes that in this dispute, the U.S. FONOPs are not just about maintaining a few outposts; rather, they are about the elementary principles and historic claims (Paul 2016).

Sebastien Colin elucidates that the UNCLOS language that is sometimes ambiguous and incomplete is what allows the conflict to persist. As the previous authors do, Colin also pays attention to the tension between the developing countries that wanted to protect their sovereignty and maximize their resource exploitation rights and the developed countries that needed maximum freedom of the seas so they could sail and trade unabatedly, even during the negotiations of the UNCLOS. Colin points out that China has long been critical of the convention for favoring the Western maritime powers, taking a particular issue with the concept of freedom of the high sea, believing that China

is "fighting the U.S. maritime hegemony" by opposing it. By comprehensively showing the long-standing disagreement and the tension that was already present during the negotiation of the law, Colin shows how the U.S. FONOPs, at least in the SCS, are an extension of this disagreement over the interpretation of some ambiguous articles and concepts of UNCLOS, which is essentially a tension between an emerging power and an established power. In Colin's eyes, ultimately, the dispute is deeply related to the geopolitical rivalry and competition over regional dominance and against this backdrop, Colin concludes that at least the first three FONOPs in the SCS since 2015 were motivated by the changing geostrategic environment as seen in China's increasing assertiveness rather than by the sole motivation of defending freedom of navigation (Colin 2016).

Hong also inspects the inevitability of the continuous competition in the SCS between the U.S. and China in the future in examining the situation through the frame of tension between an established power and an emerging power. Specifically, by studying the 2001 collision of the American surveillance plane EP-3 and the Chinese fighter jet F8 above what China claims to be its EEZ, Hong shows that each country's interpretation of UNCLOS, especially regarding the acceptable activities in each maritime zone, is drastically different. These differences become more than clear when it comes to some of the less clearly defined UNCLOS terms and phrases such as "freedom of navigation," "peaceful purpose" in conducting a certain activity, or "due regard" and "relevant circumstances" (Hong 2017).

Finally, Kim Taek-yeon argues that the U.S.-China tension in the SCS that was originally a maritime demarcation dispute has now evolved into a competition for regional dominance. He explores the issue by analyzing the change in the nature of the SCS dispute alongside the change in U.S.-China relations. According to Kim, with the U.S. focus on War on Terrorism, American influence in the Asian region diminished, providing a power vacuum for China to fill and especially with the growing economic cooperation between China and the ASEAN countries, the U.S. position as the dominant power was increasingly threatened. In response to this, the U.S. set its focus on the security issues in the region to maintain its position, and this dynamic is expressed in the SCS disputes and the two countries' rivalry in the region (T. Kim 2016).

2. The Debate over the Intentions of the U.S. FONOPs

While there is much debate regarding the true intention behind U.S. FONOPs, the argument seems to be a difficult one to conclude with definitive evidence. Regardless, the debate is one of the most active discussions in the literature. Among the various arguments, this paper first reviews the argument that the U.S. FONOPs' aim is the perseveration of freedom of navigation under UNCLOS. Published in 1994, Galdorisi's article explains that FONOPs are intended not only to preserve this right but also to push states to recognize and respect the right and to discourage any further transgression. Appraising the U.S. FONOPs' important role in defending freedom of navigation, Galdorisi argues that since freedom of navigation is a right shared by the entire international community, FONOPs are not a U.S. attempt to assert its own desires on the world's oceans. (Galdorisi 1994). He also presents the fact that the FONOPs target U.S.

friends and foes alike as evidence of lack of political motivation behind them. However, his assertion that FONOP defends freedom of navigation that every nation enjoys and therefore is important to all nations seems to be ignoring the previously discussed fact that many coastal states pushed for a narrower version of freedom of navigation, meaning that some states do not value freedom of navigation as it is. Regardless, Galdorisi makes an important point about the operational assertions preventing a change of norm and the existing international law. He emphasizes that failure to persistently and clearly object to claims inconsistent with the existing rules may constitute a tacit acceptance, possibly resulting in an alteration of the relevant laws (Galdorisi 1994).

Lynn Kuok, writing in 2016, similarly maintains that FON programs are important for ensuring the preservation of UNCLOS by identifying the legal and practical imperatives of FONOPs in preventing a "paradigm shift" as portrayed in Vienna Convention on Law of Treaties; the idea is that if an excessive maritime claim is unchallenged, it might work in favor of the state aiming to change the existing law (Kuok 2016). In stressing the importance of continuously challenging excessive maritime claims to prevent the paradigm shift, Kuok refutes the criticism of the U.S. FONOPs in the SCS and stresses their importance.

Wagner likewise proclaims the effective role FONOPs play in expressing clear and persistent objection to excessive claims. Specifically probing the 2015 USS Lassen operation, Wagner appraises it to have successfully demonstrated U.S. non-acquiescence to the Chinese excessive claims without risking a serious provocation. Moreover, Wagner evaluates that the international attention the operation brought to the pace of

Chinese reclamation activities was an additional gain. Regarding the U.S. intention behind its FONOPs, Wagner points out that by their very nature, FONOPs have limited ability to challenge territorial claims and hence are not designed to contain or threaten China. He argues that rather, the limited ability of the operations clearly shows that they are an effort to preserve freedom of navigation and therefore benefitting the international community with a rules-based system (Wagner 2016).

On the other hand, there is a group of scholars that argue that the American intention behind these FONOPs in the SCS is to contain China. Wang and Tian are two of the authors that analyze the Obama administration's FONOPs in specific and claim that President Obama saw the SCS disputes as a strategic battleground in the U.S.-China competition. They also claim that the U.S. justifies its attempt to maintain its sea power in the name of "maintaining freedom of navigation," while in reality tries to reassure its allies in the region of its commitment, construct a balance in cooperation with other Southeast Asian countries against China, and strengthen its presence in the region (Wang and Tian 2015).

Similarly, Zhang asserts that the U.S. motivation behind FONOPs is to force maritime deregulation "to create a navy-friendly environment for its worldwide mission" and argues that FONOPs in the SCS "challenge the very heart of China's sovereignty," adversely affecting peaceful settlement of the disputes in the region. Zhang's criticism of the U.S. FONOPs is largely based on the fact that the U.S., a non-signatory of the UNCLOS, tries to enforce its own practice of innocent passage in treaty interpretation of a codified customary role. Zhang supports these arguments through a more case-

specific approach and examines the operations conducted by USS Lassen and USS Curtis Wilbur to understand the U.S. and Chinese position and legal argument on the innocent passage controversy, defending the latter. For example, while mentioning the term 'artificial island' in UNCLOS is ambiguous, Zhang argues that it refers to something built on a seabed, different from the Chinese land reclamation on LTEs, and hence has different legal connotations. In this regard, Zhang concludes that FONOPs are especially suspicious of having to the intention of challenging Chinese sovereignty over these features (Zhang 2016).

On the other hand, some scholars believe that the objective of FONOPs is more multifaceted. As one of these scholars, Kim Duk-ki explains that the four U.S. motivations behind the FONOPs are to preserve the right of innocent passage of warships in territorial seas, to challenge the claims of territorial seas around artificial islands, to maintain the open sea lane, and to preserve its dominance in Asia. Accordingly, Kim concludes that the FONOPs and the Chinese responses have strategic implications for the two countries' world hegemony strategy, East Asian maritime security and preservation of freedom of navigation (Kim 2018).

Diversely, as previously mentioned, Lee Hak-su analyzes the U.S. motivations behind FONOPs through a relational mode and concludes that the U.S. motivations in conducting FONOPs should be understood with comprehending the implication of preserving freedom of navigation in the SCS and contextualizing it within great power politics between an emerging power, China, and an established power, the U.S. Against this backdrop, Lee maintains that through its FONOPs, the U.S. intends to collect

information about the artificial features, enhancing its argument against China in the international community since doing so could justify a possible U.S. involvement. Lee presents the U.S. inconsistency in its position regarding artificial features in the region as evidence of its underlying political intentions of FONOPs in SCS; he points to the fact that it was, in fact, Vietnam that first built an artificial feature in its island in Paracel Islands in 1976, followed by Malaysia in1983 and Taiwan and the Philippines in 2008 (Lee 2018).

3. The Strategic Importance of the Location

The strategic importance of the SCS has long been recognized. According to Sensftleben, Karl Haushofer was one of the first geographers to draw significant attention to the strategic importance of the SCS in the 1920s when the Japanese authorities studied Haushofer's theories and realized that establishing dominance over the SCS is crucial to their ability to reach all the countries in the region. Sensftleben points out that the Parcel Islands in particular can be valuable to China due to their proximity to Hainan, the southern-most Chinese territory that is closest to the features in the SCS (Sensftleben 1976).

Following this line of thought more specifically, Holmes analyzes whether the features in the SCS are 'along strategic lines' by adopting the naval strategist and theorist Alfred Thayer Mahan's paradigm for assessing the strategic value of a location as a naval station. Holmes considers a location's position, its strength, its resources, the larger geographic and political context and concludes that while Spratly Islands and Paracel Islands "command enviable geographic positions," the features present almost no

indication of strength and resources as many are habitable only with a constant stream of outside supplies. Holmes judges that the small features can at most host small units armed with anti-ship cruise missiles, providing a sea-denial option for the naval traffic in the vicinity. In being skeptical of the features' potentials, Holmes especially sees the dearth of island outposts in the region as a significant obstacle to taking advantage of the strategic location, even for a military resource-rich country like China (Holmes 2014). However, published in 2014, this article does not account for the Chinese dredging activities that have been building artificial islands and military facilities on maritime features that are barely above water, resulting in a growing number of outposts and a considerably different value of the individual outposts. Additionally, while Holmes' study solely focuses on the features' potential as a naval base, for this study, we must acknowledge that the claimants in the SCS see value in these features as enhancing their sovereignty claims or having access denial abilities as Holmes mentions; the Philippines' grounding of BRP Sierra Madre on Second Thomas Shoal and China's attempt to blockade supply ships to Second Thomas Shoal with its vessels on Mischief Reef are two specific examples that support this. Additionally, for China, power projection into the deeper SCS might increase the value of these features for it.

On the other hand, Bouchat highlights both the U.S. and Chinese interests in the SCS in terms of economics and security, specifically focusing on the Paracel Islands region. In terms of security, Bouchat sees that China's security interests in the SCS are to control what some call China's maritime 'backdoor,' a point from which 84 out of 479 attacks against China between 1840 and 1949 came. In discussing the opportunities

the Paracel Islands present to China, Bouchat discusses Woody Island extensively. The largest naturally formed island in the Paracel group, after China's extensive building activities, Woody Island sports two port facilities and an artificial harbor with a concrete dock 500 meters long. Additionally, Woody Island's proximity to Hainan Island enables China's existing weapons system of the Hainan base to reach further south. Additionally, Woody Island enhancing Chinese intelligence monitoring and signal capabilities is of particular importance since China is interested in surveilling U.S. activities in the region and deter the U.S. support to its allies and partners in the region. While Bouchat concludes that the tiny islands in the Paracels do not allow basing of much significant military capability and the forward position makes them vulnerable, the political implications of occupying these islands are significant as it signals China's determination to assert its sovereignty in the islands and the surrounding waters (Bouchat 2014).

On the other hand, in assessing the U.S. and Chinese assertiveness in the SCS, Thayer also pays attention to the strategic significance of Yulin naval base on Hainan island and the constructions on Woody Island in the Paracels and Fiery Cross Reef in the Spratlys. Thayer concludes that this web of outposts and bases extend China's military capability reach into the SCS and it will help China exercise its sovereignty claims over the SCS (Thayer 2010). Similarly, Paul also notes that the web of new outposts enable Chinese troops to access the disputed features in their vicinity in short notice and therefore have significant importance for the various maritime disputes, geopolitical environment, and regional balance. Paul also points out the high

vulnerability of these outposts in case of a military confrontation, but asserts that nevertheless, these outposts connect the Chinese military troops and enable them to extend their reach and project their power further (Paul 2016).

4. The gap

The overarching themes of the existing literature are as examined above; understanding the current dispute between the U.S. and China in the SCS as a tension between a developed country and a developing country and a competition over regional dominance, debating whether the U.S. FONOPs have political intentions or are purely for legal reasons, and highlighting the strategic importance of the outposts in the SCS while acknowledging their shortcomings. However, there is no study on why the U.S. conducts FONOPs around the specific features it does, or why China reacts the way it does to each FONOP. Answering these puzzles can greatly advance our understanding of the political implications of FONOPs in the SCS and the debate on the purpose of them. On the other hand, there seems to be a lot of recent analyses investigating the potentials of the various maritime features in the SCS, especially as China engages in a massive island-building activity. Hence, this study aims to connect FONOPs in the SCS and the strategic importance of the locations by examining the specifics of each FONOP in the SCS and determining whether there is a pattern in the U.S. operation choices and a pattern in the Chinese reactions. Conducting such research will be a great start for further studies in the field, and continued scholarship on the topic is of great importance since examining the former cases will be an important clue for devising U.S. foreign policy in the SCS and in China in the future.

III. Methodology

Given the sparsity in the existing literature regarding FONOPs in general, this thesis takes an inductive approach and aims to explore whether there is a pattern in the choice of locations of the U.S. FONOPs or in the Chinese reaction and explain it in relation to the strategic importance of each feature. To do this, the author collects data on the following:

- (1) The type of excessive maritime claim the operation challenged
- (2) The maritime feature around which the operation took place
- (3) China's operational and diplomatic response
- (4) The geographic location of the maritime feature
- (5) The degree of development of the maritime feature

The thesis collects data through U.S. Pentagon statements, remarks of the spokespersons of Chinese Ministry of National Defense and Ministry of Foreign Affairs, as well as news articles and Asia Maritime Transparency Initiative of Center for Strategic and International Studies. With the collected data, this thesis will determine (1) whether there is a direct relationship between the number of operation around each location and strategic importance (2) whether there is a direct relationship between the Chinese reaction to the operations around each location and strategic importance.

IV. Data

1. U.S. FONOPs in the SCS in 2015

1-1. The October 27, 2015, USS Lassen Operation

On October 27, 2015, USS Lassen, an Arleigh-Burke class guided-missile destroyer transited through five features; Subi Reef occupied by China, Northeast Cay occupied by the Philippines, Southeast Cay and South Reef occupied by Vietnam and Sandy Cay, which is unoccupied (Carter 2015). Subi Reef is a Low-tide Elevation (LTE) that is submerged at high tide, which under UNCLOS, is not entitled to establish any territorial sea around it. The operation was innocent passage within 12 nautical miles of these five features, challenging the excessive claim of requiring prior notification for a foreign military vessel to pass through its territorial sea, purported by China, Vietnam, and Taiwan. Although this operation was 'routine' in the sense that it was the seventh FONOP in the SCS since 2011, as the first U.S. FONOP to transit within 12 nautical miles of contested features in three years, experts assessed this FONOP to be signaling a turning point in the U.S. foreign policy (Freedberg Jr. 2015). China's response to this operation was twofold; operationally, China's Ministry of National Defense stated that the People's Liberation Army Navy (PLAN) shadowed and warned the ship with its guided-missile destroyer Lanzhou and a patrolling destroyer Taizhou. On the other hand, China also issued strong diplomatic and verbal protests. China's Vice Foreign Minister Zhang Yesui summoned U.S. Ambassador Max Baucus, telling him that the patrol was "extremely irresponsible." Additionally, both the National Defense Ministry and the Foreign Ministry of China criticized the operation through their remarks (Blanchard and Shalal 2015; Zou 2015; Ministry of Foreign Affairs 2015).

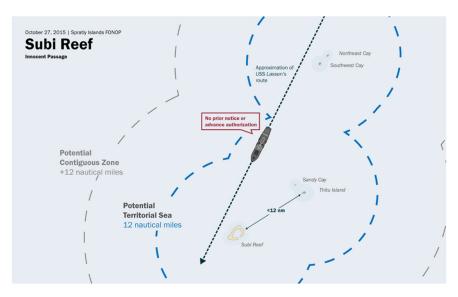


Figure 4. A visualization of USS Lassen's operation on October 27, 2015 (Freund 2016).

2. U.S. FONOPs in the SCS in 2016

2-1. January 30, 2016, USS Curtis Wilbur Operation

On January 30, 2016, USS Curtis Wilbur, an Arleigh-Burke class guided-missile destroyer, conducted innocent passage within 12 nautical miles of Triton Island in the Paracel Islands group. Triton Island is a rock/island occupied by China but is claimed by Taiwan and Vietnam as well. The operation was to challenge the prior notification requirement purported by all three countries. Although the official statement did not mention it, many experts believe that the passage was also refuting the Chinese claims of a straight baseline around the Paracel Islands (LaGrone 2016a). As mentioned previously, the U.S. protests China's 1996 proclamation of a straight baseline around the

Paracel Islands, pointing to Article 7 of UNCLOS which specifies that only archipelagic states with a certain land to water ratio are entitled to claiming straight baselines. In response to this operation protesting such an illegal straight baseline, China's Ministry of National Defense stated that the People's Liberation Army (PLA) garrison on the island took "action to warn off and repel" the American vessel (Stewart and Taplin 2016). China's Defense Ministry Spokesperson Yang Yujun strongly protested the operation and called it "very unprofessional and irresponsible in terms of the safety of troops on both sides" (Starr and Berlinger 2016). On the other hand, during a daily briefing, the Chinese Foreign Ministry Spokesperson Hua Chunying remarked that USS Curtis Wilbur "violated relevant Chinese laws by entering Chinese territorial waters without prior permission" and that the Chinese side conducted surveillance and vocal warnings to the American vessel (Foreign Ministry of Foreign Affairs 2016a).

2-2. May 10, 2016, USS P. William Lawrence Operation

On May 10, 2016, USS P. William Lawrence, an Arleigh Burke-class guided-missile destroyer, sailed within 12 nautical miles of Fiery Cross Reef under the rules of innocent passage. Fiery Cross Reef, part of Spratly Islands, is a rock occupied by China but is also claimed by the Philippines, Taiwan, and Vietnam. This operation challenged the requirement by China, Taiwan, and Vietnam to give prior notification or obtain permission when transiting through the territorial sea (LaGrone 2016b). According to the Chinese National Defense Ministry's spokesperson's remark, two fighter jets Shenyang J-11 and one Shaanxi Y-8, a medium-size transport aircraft, were scrambled to monitor the U.S. vessel. In addition to these aircraft, the guided-missile destroyer

Guangzhou and two frigates Mianyang and Linfen tracked USS P. William Lawrence during its transit and warned it to leave (Ministry of National Defense Net 2016). On the other hand the Foreign Ministry did not make any remarks on the operation.

2-3. October 21, 2016, USS Decatur Operation

On October 21, 2016, the Arleigh Burke-class guided-missile destroyer USS Decatur sailed through Triton Island and Woody Island, both rock/islands in the Paracel Islands occupied by China while also claimed by Taiwan and Vietnam. In this operation, USS Decatur tested the Chinese claims of being able to draw a straight baseline around the Paracel Islands, enabling the country to claim the territorial seas around the ring. The U.S. destroyer did not sail within 12 nautical miles of any individual islands but was still able to challenge the claims since China claims the waters extending 12 nautical miles outside the entire island group to be its territorial sea. After crossing these illegal straight baselines and entering what China claims to be its territorial sea, USS Decatur loitered and conducted 'routine maneuvering drills' which are exercises of high seas freedoms and unlawful within internal waters or territorial seas under UNCLOS (LaGrone 2016c; Ali and Spetalnick 2016; Ku 2016; Glaser et al. 2016). Hence, the clarification of the vessel's maneuvering drills is noteworthy; by clarifying that USS Decatur conducted maneuvering drills that are clearly unnecessary for the passage, the U.S. asserted that there is no territorial sea extending 12 nautical miles outside of the straight baseline drawn by China. Regarding this operation, the Chinese National Defense Ministry's spokesperson's remark affirmed that China sent one guided-missile destroyer Guangzhou and one frigate Luoyang that "spotted and verified the American ships and warned them to leave" while condemning the move as "illegal and provocative" (Associated Press 2016; Zhou 2016).

3. U.S. FONOPs in the SCS in 2017

3-1. May 24, 2017, USS Dewey Operation

On May 24, 2017, the Arleigh-Burke-class guided-missile destroyer USS Dewey passed within six nautical miles of Mischief Reef, operating 'normally', meaning it did not conduct the transit under the rules of innocent passage. The vessel remained in the area for about 90 minutes and at one point conducted a man-overboard drill. (LaGrone 2017a). By doing so, this operation challenged the Chinese claims of the existence of territorial sea around Mischief Reef, indirectly challenging China's sovereignty over the feature which is an LTE in the Spratly Islands occupied by China and claimed by the Philippines, Vietnam, and Taiwan. As the first U.S. FONOP in the SCS since President Trump took office and the first FONOP to indirectly challenge China's sovereignty over any feature in the SCS, this operation seemed to signal the new administration's tougher stance toward China. However, at the same time, Pentagon did not confirm the details of the operation as reported by various media outlets and repeated the basic statement reiterating its position that the U.S. continues regular FONOPs as it has in the past and will continue in the future (Ali and Brunnstorm 2017). The Chinese side also did not react with much vigor; the National Defense Ministry's spokesperson remarked that two guided-missile frigates Liuzhou and Luzhou were dispatched to warn the U.S. vessels while the Foreign Ministry spokesperson Lu Kang stated that PLAN 'identified and verified the U.S. vessel and warned it to leave" (Zhang 2017).

3-2. July 2, 2017, USS Stethem Operation

On July 2, 2017, the Arleigh-Burke-class guided-missile destroyer USS Stethem conducted innocent passage within 12 nautical miles of Triton Island, a rock/island part of the Paracel Islands, occupied by China but also claimed by Taiwan and Vietnam. The operation challenged the prior notification requirement purported by all three countries. As it did for the previous operation, Pentagon said that they would "not confirm reports of freedom of navigation operations outside of the yearly report that outlines the operations" and repeated the basic statements that the "U.S. will fly, sail, and operate wherever international law allows" (LaGrone 2017b; Reuters 2017). This seems to be a cautious move intended to prevent any excessive tension with China. According to the Chinese Foreign Ministry Spokesperson Lu Kang's remark on the operation, in response to the USS Stethem's 'trespassing,' China scrambled military vessels and fighter planes. In its separate statement, the Chinese Defense Ministry elaborated that it had sent two frigates, one minesweeper, and two fighter jets in response (Washington Post 2017).

3-3. August 10, 2017, USS John S. McCain operation

On August 10, 2017, the Arleigh-Burke-class guided-missile destroyer USS John S. McCain sailed within six miles of Mischief Reef, an LTE in the Spratly Islands occupied by China (Guardian staff 2017; Ali 2017; The Maritime Executive 2017). According to *The Guardian* article quoting a U.S. official, a Chinese frigate sent a warning message over radio at least ten times (Guardian staff 2017). On the other hand, China's Ministry of National Defense stated that the PLAN dispatched guided-missile frigate Huaibei and guided-missile frigate Fushun to identify and verify the U.S. vessel and warn it to drive

away (Ministry of National Defense Net 2017a). Additionally, China's Ministry of Foreign Affairs also issued a statement using the usual wording that the operation violated international and Chinese domestic laws and harmed China's sovereignty and security (Ministry of Foreign Affairs 2017).

3-4. October 10, 2017, USS Chafee Operation

On October 10, 2017, the Arleigh Burke-class guided-missile destroyer USS Chafee transited through the Paracel Islands carrying normal maneuvering operations. Quoting officials who requested to be anonymous, CNN reported that while the vessel did not transit within 12 nautical miles of any individual island in the island chain, the vessel challenged the straight baseline claim China asserts around the island group. The Chinese Ministry of Foreign Affairs statement regarding the operation affirmed that USS Chafee sailed within 16 nautical miles of the Paracel Islands (Cohen and Browne 2017). Interestingly, Pentagon once again did not comment on the operation directly but rather said that it is conducting regular, routine, and lawful FONOPs in the region. In response to this operation, the Chinese Ministry of National Defense said China sent the Huangshan guided-missile frigate, two J-11B fighter jets and one Z-8 helicopter to warn the U.S. vessel to leave (Ministry of National Defense Net 2017b).

4. U.S. FONOPs in the SCS in 2018

4-1. January 17, 2018, USS Hopper Operation

On January 17, 2018, USS Hopper, an Arleigh Burke-class guided-missile destroyer, conducted innocent passage within 12 nautical miles of Scarborough Shoal, a rock occupied by China and claimed by the Philippines and Taiwan. This operation

challenged the prior notification requirement purported by China and Taiwan. Once again, no confirmation was given by Pentagon, except for the usual statement reiterating that 'the U.S. sails, flies, and operates wherever the international law allows, and carries out regular and routine operations in the region on a daily basis. The Chinese National Defense Ministry Spokesperson Wu Qian remarked that the Chinese missile frigate Huangshan moved to identify and verify the U.S. vessel and warned it to leave the area (Panda 2018a; Gertz 2018; Johnson 2018a).

4-2. March 28, 2018, USS Mustin Operation

On March 28, 2018, the Arleigh Burke-class guided-missile destroyer USS Mustin sailed within 12 nautical miles of Mischief Reef, an LTE in the Spratly Islands. The vessel carried out maneuvering operations, meaning that the operation did not qualify as innocent passage and hence implying that the U.S. does not acknowledge Mischief Reef generating a territorial sea around it. As it has done in the past, Pentagon did not release much detail and declined to confirm the specific operation but rather stuck to the basic line that the U.S. conducts routine and regular freedom of navigation operations, as it has in the past and will in the future. On the other hand, in terms of Chinese response, according to the Chinese Ministry of National Defense's statement, the frigate Huangshan and corvette Liupanshui identified and verified the U.S. vessel and warned it to leave the vicinity. The Ministry of Foreign Affairs also made a typical remark criticizing that such operations threaten Chinese sovereignty and security as well as regional stability (Ali and Blanchard 2018; LaGrone 2018a; Martinez 2018a).

4-3. May 27, 2018, USS Antietam and USS Higgins Operation

On May 27, 2018, USS Antietam, a Ticonderoga-class guided-missile cruiser and USS Higgins, an Arleigh Burke-class guided-missile destroyer, sailed within 12 nautical miles of the Paracel Islands ring. In particular, the vessels carried out maneuvering operations near three islands; Lincoln Island, Triton Island, and Woody Island. As mentioned previously, maneuvering operations do not count as innocent passage and are illegal in internal and territorial waters. Hence, this operation challenged the claims of territorial water 12 nautical miles around the straight baseline ring claimed by China. Pentagon once again did not comment on the operation directly but repeated that the U.S. operates in the region on a daily basis. In response to this operation, China's Defense Ministry stated that it sent ships and aircraft to warn the vessels to leave without further specifying the deployed assets (Meyers 2018; Westcott, Jiang, and Berlinger 2018; Ali 2018; Panda 2018b).

4-4. September 30, 2018, USS Decatur Operation

On September 30, 2018, the Arleigh Burke-class guided-missile destroyer USS Decatur conducted innocent passage through the waters 12 nautical miles within Gaven Reef and Johnson Reef, challenging the prior notification requirement. Unlike other encounters where the U.S. assessed the interaction between the U.S. and Chinese ships to be uneventful and professional, this particular encounter between USS Decatur and the Chinese destroyer Luyang came close to a collision. At one point, Luyang came within 45 meters of the Decatur, prompting Decatur to change its course to avoid collision. While both the Chinese Ministry of National Defense and Ministry of Foreign Affairs made remarks criticizing the U.S. FONOP as usual and asserted that "China's military

is resolutely opposed to this" and "will take all necessary measures to defend its national sovereignty and security", Washington to called the Chinese side's actions "unsafe and unprofessional" (Martinez 2018b; Werner 2018; Johnson 2018b).

4-5. November 29, 2018, USS Chancellorsville Operation

On November 29, 2018, the Ticonderoga-class guided-missile destroyer USS Chancellorsville sailed around the Paracel Islands. However, the details on around which specific islets the vessel sailed near or the excessive maritime claim it challenged were not given. In response to this operation, Beijing stated that it issued a formal diplomatic protest known as demarche. China's Ministry of Foreign Affairs and Ministry of National Defense told that China once again clarified its position on the issue with its "stern representations" and sent ships and planes to warn the American vessel to leave. However, no further details were given (Reuters 2018; Lu 2018; Johnson 2018c).

5. U.S. FONOPs in the SCS in 2019

5-1. January 7, 2019, USS McCampbell Operation

On January 7, 2019, USS McCampbell, an Arleigh-Burke class guided-missile destroyer, sailed within 12 nautical miles of the Paracel Island chain. According to the Reuters article, the Pacific Fleet spokeswoman Rachel McMarr explained that the operation was "to challenge excessive maritime claims." However, it is unclear whether the U.S. vessel was sailing within 12 nautical miles of the territorial sea China claims based on its straight baseline proclamation or within 12 nautical miles of individual features of the Paracel Islands. This ambiguity leaves the type of excessive maritime claims this operation challenged unknown; for example, normal operation in the former area would

have been protesting the straight baseline claims while innocent passage in the latter area would have been protesting the prior notification requirement. Regardless, in response to the operation, the PLAN sent a military vessel and aircraft to verify and identify the USS McCampbell and warn it to leave (Panda 2019a; Reuters 2019; Werner 2019a).

5-2. February 11, 2019, USS Spruance and USS Preble Operation

On February 11, 2019, two Arleigh-Burke class guided-missile destroyers USS Spruance and USS Preble sailed within 12 nautical miles of Mischief Reef, an artificially fortified island occupied by China but also claimed by Taiwan, Vietnam, and the Philippines. Instead of giving details of the operation, Pentagon gave a generic statement that the U.S. operates regularly and lawfully in the region on a daily basis (Werner 2019b; Johnson 2019). In response to this operation, the Chinese Ministry of Foreign Affairs spokeswoman remarked that "China has indisputable sovereignty over islands in the South China Sea, including the Second Thomas Shoal, Mischief Reef, and the adjacent waters" (Ministry of Foreign Affairs 2019a).

5-3. May 6, 2019, USS Preble and USS Chung-hoon Operation

On May 6, 2019, USS Preble and USS Chung-hoon sailed within 12 nautical miles of Gaven Reef and Johnson Reef in the Spratly Islands, transiting under the rules of innocent passage. Both reefs, qualifying as rocks, are claimed by the Philippines, Taiwan, and Vietnam. The operation challenged the excessive maritime claims of prior notification purported by China, Vietnam, and Taiwan. In response to this operation, the Chinese Foreign Ministry Spokesperson Geng Shuang remarked that the PLAN

"identified and verified the US warships" and "warned them off" without specifying what assets were dispatched (Panda 2019b; Lo 2019; Werner 2019c).

5-4. May 20, 2019, 2019 USS Preble Operation

On May 20, USS Preble, an Arleigh-Burke class guided-missile destroyer, transited within 12 nautical miles of Scarborough Shoal. Scarborough Shoal remains unoccupied but has been in China's control since 2012 and is claimed by the Philippines and Taiwan as well. The U.S. Navy 7th Fleet Spokesman Joe Keiley remarked that the operation was to challenge excessive maritime claims, but did not further specify. Both the National Defense Ministry and the Foreign Ministry of China released a statement through their spokespersons, but neither gave any specifics regarding the dispatched assets but instead said that the Navy verified and identified the U.S. vessel and warned it to leave the area (Panda 2019c; Johnson 2019b; Ali 2019a).

5-5. August 28, 2019, USS Wayne E. Meyer Operation

On August 28, USS Wayne E. Meyer, an Arleigh-Burke class guided-missile destroyer, traveled within 12 nautical miles of Fiery Cross and Mischief Reef in the Spratly Islands. This is interesting since Fiery Cross Reef is a rock, entitled to generating a territorial sea whereas Mischief Reef, an LTE, does not have the right to do so. Without giving further details, Pentagon stated that the operation challenged excessive maritime claims in the region and that it has no political objectives. On the other hand, the Chinese Ministry of National Defense spokesperson Li Huamin stated that the PLA Navy and Air Force shadowed, identified, monitored, warned, and expelled the destroyer (Eckstein 2019; Browne and Lendon 2019).

5-6. September 13, 2019, USS Wayne E. Meyer Operation

On September 13, the Arleigh-Burke class guided-missile destroyer USS Wayne E. Meyer carried out another FONOP, this time around the Paracel Islands. The operation was challenging two excessive maritime claims; one that requires prior notification requirement in passing a territorial sea, purported by Beijing, Hanoi, and Taipei, and another one posed by China that illegitimately claims straight baseline around the Paracel Islands. According to the Chinese statement, in response to this operation, the Chinese PLAN closely monitored the ship and warned it to leave without further details specifying what assets were deployed (Panda 2019d; Wang 2019; Ryan and Jiang 2019). 5-7. November 20, 2019, USS Gabrielle Giffords Operation

On November 20, USS Gabrielle Giffords, an Independence-class littoral combat ship, sailed within 12 nautical miles of Mischief Reef. The American vessel was demonstrating that Mischief Reef is not entitled to a territorial sea by sailing within 12 nautical miles of the feature engaging in normal operations, not innocent passage (Johnson 2019c; Werner 2019d). Chinese Foreign Ministry spokesperson remarked that "Southern Theater Command" lawfully tracked, verified, identified, and warned to leave (Ministry of Foreign Affairs 2019).

5-8. November 21, 2019, USS Wayne E. Meyer Operation

On November 21, the Arleigh-Burke class guided-missile destroyer USS Wayne E. Meyer challenged the requirement of prior notification made by China, Taiwan, and Vietnam around the Paracel Islands as well as the illegal straight baseline claims purported by China (Johnson 2019c; Werner 2019d). As in the previous operation, the

Chinese Foreign Ministry spokesperson remarked that Southern Theater Command lawfully tracked, verified, identified, and warned to leave, but no further details were given (Ministry of Foreign Affairs 2019b).

V. Analysis

1. The General Pattern

From 2015 to 2019, the total number of FONOPs conducted each year increased.

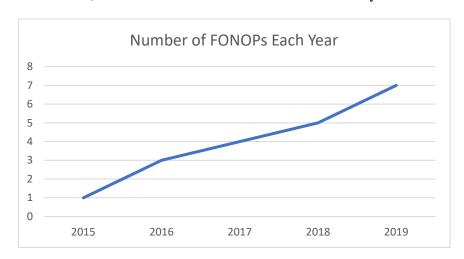


Figure 5. The number of FONOPs each year 2015-2019

2. Location Pattern

2-1. Island Groups

The four operations carried out from 2015 to 2016 alternated between the Spratly Islands and the Paracel Islands. This trend persisted in 2017, in which the Spratly Islands and the Paracel Islands each had two out of four operations around the group. In 2018, this pattern persisted with the only difference being the introduction of Scarborough Shoal as a location; except for one out five operations in Scarborough Shoal, two were conducted in the Spratly Islands, while the remaining two were conducted in the Paracel Islands. However, this pattern changed in 2019; out of the seven operations, except for the two held in the Paracel Islands and one held in Scarborough Shoal, four were

conducted around the Spratly Islands. In conclusion, while FONOPs between 2015 and 2018 took place around the Spratly Islands and the Paracel Islands evenly, FONOPs in 2019 experienced a drastic increase of the Spratly Islands to Paracel Islands ratio. Additionally, Scarborough Shoal started having FONOPs around it in 2018 and had one each in 2018 and 2019. This shows that the U.S. assigns about the same importance to both the Paracel Islands and the Spratly Islands as groups, whether it be about freedom of navigation, or about checking Chinese reach and power projection. In terms of the location, the Paracel Islands pose importance because of their proximity to the mainland and hence the ability to extend Chinese military capability further south, and their significance in enhancing the Chinese claims of 'nine-dash line.' China currently occupies all of the 20 occupied features in the group. On the other hand, the Spratly Islands, as a group, are important because as the more southern archipelago, having outposts in it presents China with an opportunity to reach even further south. Additionally, some of China's outposts in the Spratly Islands are considerably close to the Philippines and enables China to pressure the U.S. treaty ally.

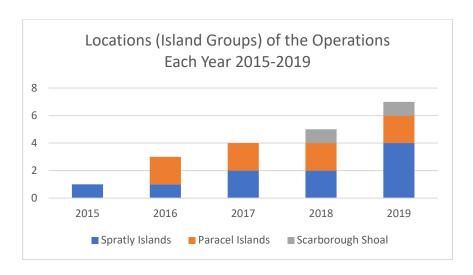


Figure 6. The locations (Island Groups) of the operations each year 2015-2019

2-2. Individual Features

Until 2017, FONOPs were conducted around only four features - Subi Reef, Triton Island, Fiery Cross, and Woody Island - out of 28 features occupied or controlled by China. Interestingly, these four also represent the biggest Chinese land reclamation projects. Woody Island especially served as the blueprint for the development of other features; the reclamation and military facility development in the Spratly Islands largely followed that of Woody Island's.

However, starting in 2017, the number of operations around Mischief Reef increased drastically. Additionally, the information about the FONOPs in Paracel Islands ceased to include the specific feature around which the operation was conducted; instead, Pentagon started giving the generic 'Paracel Islands' as the location of operations. The graph below shows the number of FONOPs conducted around each feature From 2015 to 2019. In this section, the thesis tries to explain the frequency of FONOPs around each

feature with its strategic importance. In doing so, this thesis will also pay attention to the change in the number of operations each year because the change in administration in 2017 needs to be considered and because the level of development of the features change every year as facility constructions continued well into 2017.

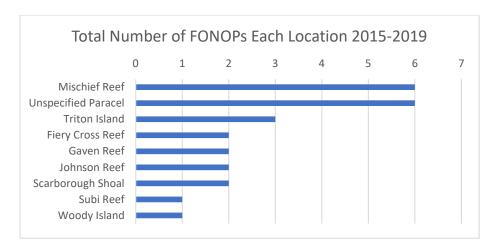


Figure 7. The total number of FONOPs each location 2015-2019

2-2-1. Mischief Reef

Mischief Reef, an LTE, is the easternmost feature occupied by China in the Spratly Islands. It is located only 20 nautical miles away from Second Thomas Shoal occupied by the Philippines and 150 miles away from Palawan, a major Philippine island (AMTI Island Tracker). Second Thomas Shoal hosts a small band of Filipino marine inside the BRP Sierra Madre, a 100-meter long WWII-era tank landing ship intentionally grounded on the submerged Second Thomas Shoal by the Philippines in 1999 in response to China's occupation of Mischief Reef in 1995. In March 2014, China actually 'blockaded' BRP Sierra Madre, claiming that the ships sailing to reach BRP Sierra Madre were carrying resupplying building materials to reinforce the wrecked ship, contrary to the

Philippines 'claim that they were trying to replenish the ship with food and supplies (Green *et al.* counter coercion). Naturally, Mischief Reef is an important point of contestation between China and the Philippines, a U.S. treaty ally, and this significance could explain the frequent FONOPs around the feature.

Mischief Reef has a total of 1,379 acres of land reclaimed, which reflects the biggest reclaimed land area in the Spratly Islands. This is an amount twice as much as Fiery Cross and 1.5 times as much as Subi Reef's, making Mischief Reef the biggest Chinese outpost in the Spratly Islands (AMTI Island Tracker; AMTI 2016). The sand-dredging activities on Mischief Reef started in January 2015. After a year of reclamation work, by early 2016, Mischief Reef had a runway, a dock, and a seawall and later that year the artificial island showed anti-aircraft weapons and a missile defense system (Sanger and Gladstone 2015; AMTI 2016).

While there were no FONOPs around Mischief Reef during President Obama's term, From 2017 to 2019, there was the most number of FONOPs around the feature. This may be attributed to the fact that among the Big Three, Mischief was the last to be developed; while by September 2015, it was confirmed that the construction of the airstrip on Fiery Cross was completed and the one on Subi Reef was continuing, the one for Mischief had just begun (AMTI 2016). Not only the airstrips, but the order of overall construction work on the Big Three have been Fiery Cross Reef, Subi Reef, and Mischief Reef at last.

Diversely, the sudden change in the number of operations around Mischief Reef each year might also be explained by the implications of FONOPs around Mischief Reef.

Mischief Reef is the only Chinese-occupied feature that indisputably cannot generate a territorial sea. Hence, sailing within 12 nautical miles of Mischief Reef not following the rules of innocent passage asserts that Mischief Reef does not have a territorial sea around it and no country can claim sovereignty over the feature, indirectly challenging China's sovereignty claim. As seen in the fact that three out of four operations during President Obama's term were innocent passages within 12 nautical miles that challenged the prior notification requirement, the Obama administration tried not to irk Beijing excessively with its FONOPs and this might be the reason why the administration avoided Mischief Reef. However, starting in 2017 as President Trump took office, the number of operations around Mischief Reef increased drastically. While Pentagon explicitly stated that the operation was challenging the existence of territorial sea around Mischief Reef for only four out of the six public operations, the remaining two were also most likely challenging the same excessive claim. This is because conducting innocent passage within 12 nautical miles of Mischief Reef could be a tacit acknowledgement of the existence of territorial sea around the feature, allowing China to bolster its claim that artificial islands can generate a territorial sea.

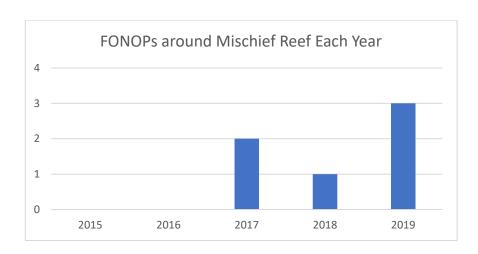


Figure 8. FONOPs around Mischief Reef each year

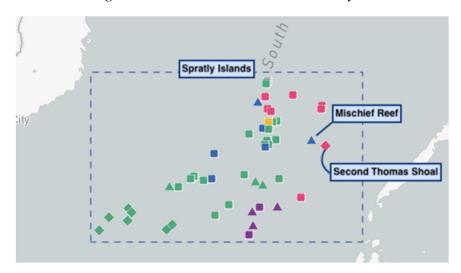


Figure 9. The location of Mischief Reef within Spratly Islands (AMTI Island Tracker).

2-2-2. Unspecified Paracel Islands

Unspecified Paracel Islands as a location of FONOP is particularly interesting. Prior to the USS Chaffee operation in October 2017, the specific features of Paracel Islands were always given; once in January 2016 when USS Curtis Wilbur sailed around Triton Island, and once in October 2016 when USS Decatur challenged China's straight baseline

claims by conducting a maneuvering drill around Triton Island and Woody Island, and once in July 2017 when USS Stethem sailed around Triton Island. However, starting from the Chafee operation, Pentagon started giving 'Paracel Islands' as a location rather than the specific island the U.S. vessels sailed around. The May 27, 2018, USS Antietam and USS Higgins operation in particular released information that while sailing within 12 nautical miles of Paracel Islands, it conducted maneuvering operations around Tree Island, Lincoln Island, and Woody Island, but still did not give the full list. As mentioned in section 2-1, the Paracel Islands as a group presents an ample strategic importance. However, the Trump administration might have decided that since all except for one operation around the Paracel Islands before were challenging China's straight baseline claims, what feature the U.S. challenges is not important, ceasing to give details on the information.

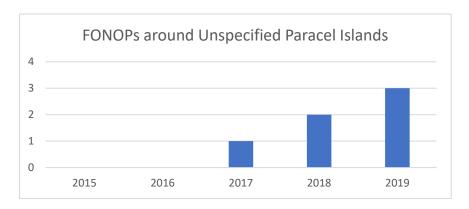


Figure 10. FONOPs around Unspecified Paracel Islands each year

2-2-3. Triton Island

Triton Island does not have comparative strength over other features in the archipelago in terms of military facilities; it sports a small harbor and helipads while Duncan Island and Tree Island boast larger harbors and helipads (AMTI 2017). In terms of the location, however, Triton Island might be advantageous for the U.S. to conduct FONOPs around as it is the furthest outpost away from Woody Island, the biggest Chinese outpost in the Paracel Islands, and might allow the U.S. to put more pressure on China. Perhaps for this reason, among the specified locations within Paracel Islands, Triton Island had the most number of operations around it, amounting to three times. All of the three operations were concentrated before the U.S. started stating that it conducted a FONOP around the Paracel Islands without further elaboration. The absence of FONOPs around this feature after 2017 is explained by this change; there is still some possibility that Triton Island was included in the unspecified Paracel Islands that the U.S. conducted five FONOPs around in 2018 and 2019.

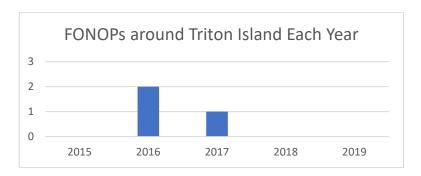


Figure 11. FONOPs around Triton Island each year

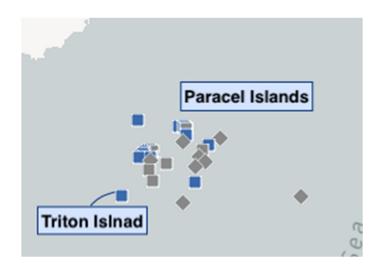


Figure 12. The location of Triton Island within Paracel Islands (AMTI Island Tracker).

2-2-4. Fiery Cross Reef

Categorized as a rock, Fiery Cross Reef is one of the so-called Big Three in the Spratly Islands alongside Subi Reef and Mischief Reef and has also had the third most reclamation work done by China in the island group; the total area of reclamation amounts to 677 acres. As briefly mentioned above, Fiery Cross Reef has generally been the first feature in the Spratly Islands to get reclamation and facility development on, explaining the operation around it in 2015 (AMTI 2016).



Figure 13. FONOPs around Fiery Cross Reef each year



Figure 14. A satellite image of Fiery Cross Reef (AMTI Island Tracker).

2-2-5. Gaven Reef and Johnson Reef

Previously unseen on the list of locations, Gaven Reef and Johnson Reef first emerged as a location of FONOPs in 2018. In terms of the location, Gaven Reef is important because it is only 16 nautical miles away from Taiwan's Taiping Island (DeAeth 2019). As two of the four smallest islets in the Spratly Islands occupied by China, both had a close-in weapons system, a point-defense system in late 2016 before the Big Three each got the advanced version of the system in 2017 (AMTI 2016 December). This is rather puzzling since the operations around the two features started in 2018. The lack of overlap here suggests that other criteria might have been at play when the location choice was made.

Interestingly, in both operations in 2018 and 2019, the two reefs were paired together. Both naturally categorized as rocks, each reef has 34 and 27 acres of reclamation work done to it. While Hughes Reef sits between Gaven and Johnson Reef

and also has about the same level of military facility development as the two, the U.S. paired Gaven and Johnson Reef instead of including Hughes Reef. This may be explained by the different natural states of the features; Hughes Reef is an LTE while Gaven Reef and Johnson Reef qualify as rocks. Sailing around Hughes Reef, an LTE, would have had to challenge the existence of territorial sea around it, indirectly challenge China's sovereignty claims over it. Choosing Gaven and Johnson Reef instead of Hughes Reef might have been a U.S. attempt to avoid tensions with China over a relatively insignificant feature.

Another puzzling point is the unusually strong reaction from China to the operation around Gaven and Johnson Reefs on September 30, 2018, carried out by USS Decatur. In this particular operation, a Chinese Luyang-class destroyer came within 45 yards of USS Decatur in a near-collision situation, prompting the U.S. vessel to maneuver to avoid collision (Werner 2018). Two points here strengthens the previous speculation that other criteria might affect the location choice for FONOPs; first, Gaven and Johnson Reefs have rather small garrisons with modest military facilities and weapons deployment and yet, the operation around these experienced the strongest form of reaction from China. Secondly, only one of the two operations challenging the same excessive maritime claim around the same feature triggered such a strong reaction (Johnson 2018). Instead of the strategic importance of the locations of these features, the domestic situation of China might better explain such a reaction to the particular operation in September 2018; the operation was only a few days before October 1, China's National Day. As a celebration of the establishment of People's Republic of

China, it is one of the biggest holidays in the country and often features a big military parade that boasts China's military development and strength. Naturally, the holiday arouses much nationalistic sentiment and the government must display a firm stance as a rising global power. This pressure might have resulted in an unusually strong reaction from China over an operation around relatively insignificant features that challenge prior notification requirement, not the existence of territorial sea.

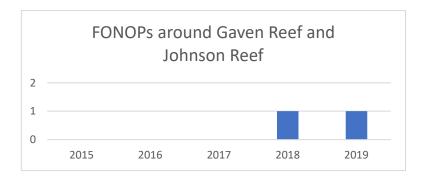


Figure 15. FONOPs around Gaven Reef and Johnson Reef each year

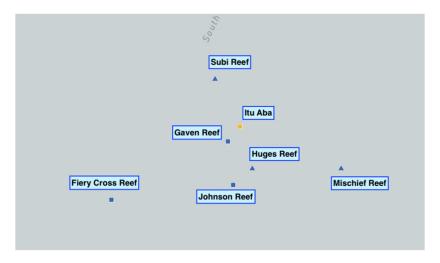


Figure 16. The location of Gaven Reef, Hughes Reef, and Johnson Reef in relation to some of the major features in the Spratly Islands (AMTI Island Tracker).

2-2-6. Scarborough Shoal

Scarborough Shoal is an unoccupied rock, but China has been maintaining a constant coast guard presence around it. The feature is approximately 120 nautical miles west of the Philippine island of Luzon, possibly putting Luzon within China's target range if China develops the island. Indeed, although there are no structures built on Scarborough Shoal to date, since Scarborough Shoal presents China with a possibility to form an even bigger strategic triangle with Woody Island and Mischief Reef covering a big part of the SCS, China might develop military facilities in the near future. As it is the case of Mischief Reef due to the Philippines' Second Thomas Shoal, Scarborough Shoal is important for the U.S. to maintain its presence here because of the treaty ally Philippines. Alongside Second Thomas Shoal, Scarborough Shoal is among the top three features under the most China Cast Guard (CCG) watch with its vessels openly broadcasting its presence far more frequently although military and law enforcement vessels have discretion about the use of it. Experts speculate that this is intended to enhance China's sovereignty claim over a feature that does not have any permanent facilities (AMTI 2019). This importance China assigns to Scarborough Shoal adds to its significant position in both countries' strategy and the operations around the feature starting in 2018 reflects this.

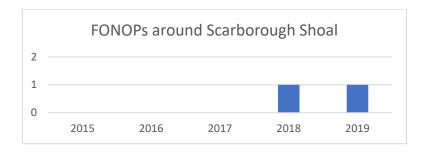


Figure 17. FONOPs around Scarborough Shoal each year

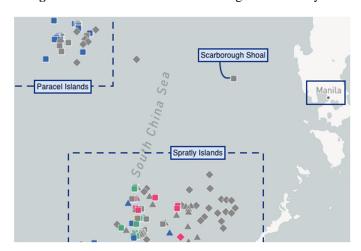


Figure 18. The location of Scarborough Shoal in relation to Paracel Islands, Spratly Islands, and Manila (AMTI Island Trakeer)

2-2-8. Subi Reef

Subi Reef is at the northern end of the Spratly Islands and is only 13 nautical miles away from Thitu Island, the second-largest naturally fomented feature in the Spratly Islands occupied by the Philippines with a small civilian population, freshwater and an airstrip (Harsha 2020). Additionally, Subi Reef is also less than 40 nautical miles away from Itu Aba, commonly known as Taiping Island, which is the largest naturally fomented feature in the Spratly Islands, occupied by Taiwan (AMTI 2016). Subi Reef has 976 acres of

reclaimed land with various military facilities including a seawall, docks, and a runway that can accommodate a medium-size transport aircraft (AMTI Island Tracker; AMTI 2016; AMTI 2018).

However, despite this importance, Subi Reef might not have had any more FONOPs around it since 2015 due to the criticism surrounding the Lassen operation. As an LTE that lies within 12 nautical miles of another rock, the legal status of Subi Reef and its entitlement to maritime zones are unclear, and hence the claims around the feature were ambiguous, leaving many puzzled as to exactly what excessive maritime the operation was challenging. Additionally, the choice of Subi Reef as a location brought on many questions; while Secretary Carter clarified that although the U.S. considers Subi Reef a LTE despite the Chinese reclamation work, the American vessel conducted innocent passage within 12 nautical miles of it rather than transiting with regular activities because of the legal ambiguity of its status o(Carter 2015). Nevertheless, critics argued that such behavior could be understood as an implicit acknowledgment of the existence of a territorial sea around Subi Reef, and if the operation were to be effective, the facts of the operation should have been more clearly communicated. (Ku 2015; Glaser and Dutton 2015).

2-2-9. Woody Island

Woody Island, the biggest feature in the Paracel Islands and one of the most important Chinese outposts in the SCS, only had one FONOP conducted around it between 2015 and 2019, except for the May 2018 operation in which Pentagon specifically mentioned

it as part of an operation around unspeicifed Paracel Islands. Woody Island's strategic importance is manifold. Lying on 250 miles from the Southmost point of Hainan, the island hosts the prefecture-level government of Sansha (Green, Glaser, Cooper 2016; Tomlinson and Frilling 2016). The Hainan base itself already extends the growing Chinese military capabilities highlighted by new submarines and missiles to the SCS, and Woody Island extends this even further south. In the beginning of the reclamation work phase, the island also served as a blueprint of development; Woody Island was the first island to feature a runway and surface-to-air missiles (SAMs). The missiles deployed to Woody Island are particularly significant as they could target aircraft at ranges up to 200 kilometers, covering much of the Paracel Islands. However, the great strategic importance of this island did not translate into a high number of FONOPs around it, implying that there are criteria other than the strategic importance the U.S. considers in deciding the location of its FONOPs. Additionally, the low number could also be explained by the U.S. change in how it releases information; Woody Island could have been included in the operations around unspecified Paracel Islands without public knowledge.

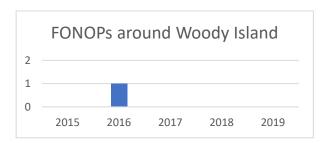


Figure 19. FONOPs around Woody Island each year



Figure 20. A satellite image of Woody Island (AMTI Island Tracker)

As shown in this section, while the U.S. choice of locations of FONOPs reflect strategic importance, the frequency is often not explained by the relative importance, meaning that some features with seemingly greater strategic importance had fewer FONOPs around them. This suggests that strategic importance of the location is not the only criterion the U.S. considers when deciding around what location to conduct its FONOPs. Nevertheless, out of the 27 outposts, the eight outposts presented here do possess considerable strategic importance.

3. Reaction Pattern

Contrary to the expectation at the time of the design of this research, the Chinese responses to the U.S. FONOPs were relatively steady with not much variation. Similarly, there were no significant consistency in the Chinese responses to operations around a certain location. Nevertheless, before this thesis tries to account for other possible patterns and explanation for it, two exceptional cases must be mentioned. First, the first operation in 2015 around Subi Reef triggered the typical Chinese reaction of two

destroyers shadowing and protesting remarks from both the Ministry of National Defense and Ministry of Foreign Affairs, but the vice-foreign minister also summoned the U.S. Ambassador to China to protest the move. Secondly, the USS Decatur operation around Gaven Reef and Johnson Reef in September 2018 almost ended in a collision between the U.S. vessel and the Chinese destroyer Luoyang. In examining the details of these cases, this research shows that these atypical responses cannot be explained by the location of the FONOPs as they were all targeting different locations. Moreover, the excessive maritime claims challenged were also on the milder side; the two were innocent passages challenging the prior notification requirement, certainly lower on the pressure scale compared to operations around Mischief Reef that challenge Chinese assertion of sovereignty over the artificial island built on an LTE. Hence, these responses seem to have been formulated based on the situation and the timing of the operations rather than the location of them. The summoning of the U.S. ambassador could be attributed to the fact that this was the first FONOP so close to a Chinese-claimed feature breaking a three-year-old hiatus. As previously mentioned, the near-collision incident between USS Decatur and Chinese Luyang might be attributed to the timing of the operation which was right before the important October 1 National Day.

It seems that the broader pattern found in the Chinese reaction is based on the passage of time rather than the different locations; as time passed, China's remarks get more ambiguous and general. The operational responses also change as time passes; in response to the operations in 2015 and 2016 except for the U.S.S Curtis Wilbur FONOP, more than one destroyer from the Chinese side always verified and identified the U.S.

vessel and warned it to leave the area. To every FONOP in 2017, at least two frigates were present, often accompanied with two J-11B fighter jets. 2018 is a year of somewhat mixed responses; out of the five operations carried out that year, three had one Chinese frigate or destroyer shadowing the U.S. vessel while in the other two, the Chinese response was generic without any information on the specifics. In 2019, such a response became the norm, and all eight operations were followed by remarks from the Chinese side saying that the armed forces lawfully tracked, verified, identified, and warned the U.S. vessels to leave.

This change in the Chinese reactions might be signaling a shift in its responses. As China develops its Navy and enhances its capability further, it might soon want to do exactly what the U.S. is currently doing, advocating for maximum freedom and flexibility, favorable to maritime powers that sail worldwide. Indeed, China conducted its own operation that resembles U.S. FONOPs around the Aleutian Islands near Alaska in 2015. If China's position shifts from its long-held advocacy for *mare clausum* to *mare liberum*, this would be another example following the previously discussed pattern; soon, China might want to follow the footsteps of the UK that shifted from supporting *mare liberum* from *mare clausum* as it transformed into a maritime power from a littoral state with relatively less maritime capabilities and the need to protect its coasts. While it is most likely that China would still strongly oppose U.S. FONOPs that threaten China's sovereignty claim as one under normal operation within 12 nautical miles of Mischief Reef does, it would not be entirely surprising to see China gradually soften its response

to U.S. FONOPs that challenge prior notification requirements for innocent passage in the near future.

Everything considered, the Chinese reaction seems to be dependent on the passage of time and the time of the operation rather than the strategic importance of a specific location; China does not react more vigorously to the features it considers more strategically important and vice versa.

VI. Conclusion

As the literature review shows, the SCS as a whole is key to the U.S.-China competition and FONOPs in the SCS are an important extension of it. While the U.S. argues that its FONOPs are apolitical and purely a tool to preserve freedom of navigation, China considers them a provocation and U.S. assertion of its power in the region under the cloak of freedom of navigation. To explore this debate more closely, this study tried to better understand FONOPs in the SCS by examining whether there is a relationship between the U.S. location choice and strategic importance of each feature, or a relationship between the Chinese reaction and strategic importance of each feature. Initially, at the time of the design of this research, it was expected that the results would yield an overlap between the operating locations and the Big Three islands and Woody Island due to their strategic importance. However, although in the first two years, 2015 and 2016, the four operations indeed took place around these four features, starting in 2017, the location of FONOPs became more diverse and less directly related to the strategic importance of locations, yielding a result different from expected. While it seems that the FONOPs do occur at the strategically important outposts more often, it also seems that other criteria such as bilateral relationships and regional geopolitics might affect the decisions on the locations of FONOPs.

On the other hand, in the beginning, this research expected to find that China reacts more vigorously to FONOPs around these locations. Nevertheless, contrary to the expectation, the degree of Chinese reaction to FONOPs showed no significant

relationship with the strategic importance of each feature; rather, they seemed more closely related to the overall passage of time and the specific timing of FONOPs.

The limitation of this study lies in the lack of framework and a stable source of data. The former limitation in particular led this research to be largely inductive and qualitative. It is also difficult to isolate the strategic importance of each location from other criteria such as the timing of the operation in understanding why the U.S. chose the specific feature to conduct FONOPs around, or why China reacted with the particular intensity. For example, the same type of operation around the same feature challenging the same excessive maritime claim could trigger different reactions from China, as it did in the two cases of operations around Gaven Reef and Johnson Reef. On the other hand, alongside the existence of FONOPs that are not publicized, the latter limitation is a significant obstacle to an accurate. Finally, the heavy reliance on satellite imagery is also a limitation; while satellite images provide the general idea on the progress of Chinese reclamation work and facility development, since they only show information from a specific moment, they are unable to give unequivocal information regarding the deployment of PLAN or CCG. Nonetheless, this study is meaningful in the sense that it compiles scattered data of the features and FONOPs, enabling a holistic analysis of FONOPs in the SCS.

The limitations of this study provide ample insights into possible future studies; for future research, examining the other criteria discussed in this study could be useful. For instance, one could codify the bilateral relationship between the U.S. and China to study the correlation between it and the FONOPs in the SCS. Similarly, studying the

timing and domestic politics of China could provide a more in-depth explanation of Chinese reaction to each FONOP in the SCS. Furthermore, as this study suggests that there are indeed some political implications behind FONOPs, one could also consider studying those in the SCS; for instance, what does a cross-regional analysis of all U.S. FONOPs reveal about the U.S. engagement in the SCS region? A large-n analysis answering this question could further our understanding of FONOPs in the SCS.

Not limited to FONOPs in the SCS, but a continued study of the region is important as the geopolitical situation undergoes constant change. In 2018, the U.S. enacted Asia Reassurance Initiative Act (ARIA), which directs the U.S. president to continue freedom of navigation operations (Panda 2018). As recent as in February 2020, the Philippines announced that it is terminating its Visiting Forces Agreement (VFA) with the U.S., initiating the 180-day count until the formal termination. This move signaling discord between the U.S. and the Philippines might force the U.S. to alter its strategy in the region as it will decrease collaboration and interoperability between the U.S. and Philippine forces. Additionally, the Philippines' alignment with China could also eventually enable China to develop Scarborough Shoal, completing the previously mentioned big triangle encompassing the majority of the SCS. As such, the SCS will continue to be an important and fast-changing stage for the U.S.-China competition, and ultimately the international political arena as a whole. This thesis attempted to bring light to an under-explored topic of FONOPs in the SCS and understand the relationship between the U.S. and Chinese behavior with the strategic importance of the maritime features.

Moreover, there is also a possibility that China would gradually change its stance regarding freedom of navigation. As this thesis explored in its literature review, a state with weaker maritime capabilities could first support mare clausum and switch to supporting mare liberum as its maritime capabilities and the ability to reach the more remote corners increase. The UK shifting from supporting mare clausum to mare liberum is an example. According to OxResearch Daily Brief Service, this shift is obvious in a few aspects; in September 2015, Chinese warships made innocent passage within 12 nautical miles of the Aleutian Islands, most of which is part of the U.S. state Alaska, conducting their own FONOP in a way. Additionally, *Global Times*, the usually belligerent media run by the Chinese state, ran an editorial piece once saying that the FONOPS might be beneficial in fact, and "in no time at all" China would be able to conduct such operations (OxResearch 2017). As evidenced in these behaviors, China's rapid naval modernization could be motivating China to change its calculations; with greater maritime capabilities, China, at the end, might want to adopt the same broad interpretation of freedom of navigation as the U.S. has been pushing for. Whether China would continue to align itself more closely to the principle of closed sea or would later shift to supporting a more open sea with a broader interpretation of freedom of navigation must be closely monitored. FONOPs would be one of the first areas in which China would show its change of attitude, and continuing to study U.S. FONOPs in the SCS would be valuable in understanding the China's stance on international maritime laws as well as the U.S.-China relationship.

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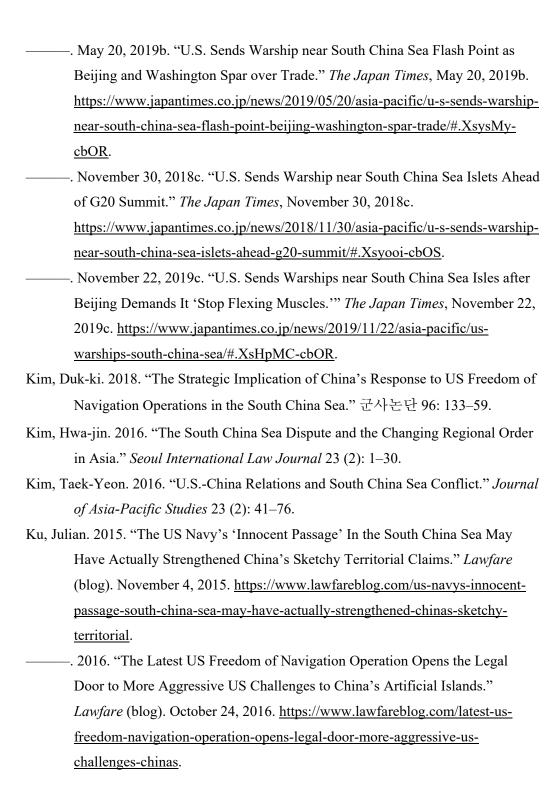
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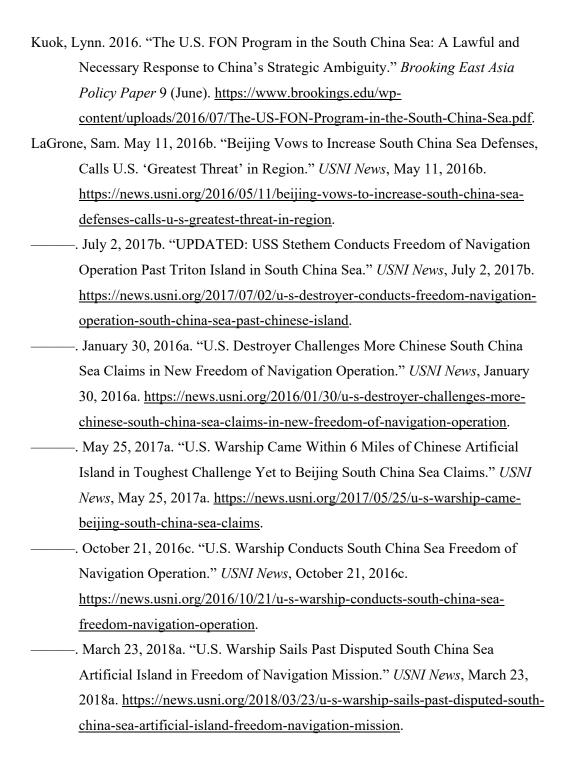
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2015 년 10월에 미국은 3년의 공백을 깨고 남중국해에서 중국이 영유권을

주장하는 섬의 12 해리 이내를 항해하는 항행의 자유작전을 펼쳤다. 그로부터

2019 년까지 총 21 개의 대중에 공개된 항행의 자유작전이 있었다. 미국의

항행의 자유작전은 피상적으로는 자주 거론되지만 그에 대한 깊이 있는 이해는

부족한 편이며 특히 각 작전과 그의 대상장소의 상관관계는 여전히 불분명하다.

이 연구는 미국의 남중국해내에서의 항행의 자유작전과 각 작전에 대한 중국의

반응에 관련된 데이터를 수집함으로써 미국의 장소선정과 섬들의 전략적

중요성의 상관관계, 그리고 중국의 반응과 섬들의 전략적 중요성의 상관관계에

대해 알아보고자 한다. 이 연구는 섬들의 전략적 중요성이 미국의 작전 대상

장소선정이나 중국의 반응에 있어서 유일한 기준은 아님을 시사한다. 이 연구는

지금껏 충분히 논의되지 않은 주제에 주목하고 흩어져있던 데이터를 한데 모아

전체론적 접근을 시도함으로써 미래 연구의 방향서을 제시하고 지속적인 연구의

필요성을 강조한다.

주요어: 미국 항행의 자유작전, 남중국해, 미중관계, 유엔해양법협약

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