





THE ASIA-PACIFIC POWDER KEG: CHINA'S GROWING CONVENTIONAL AND ASYMMETRIC STRENGTH AND ITS THREAT TO THE WEST

Major Nicholas Arakgi

JCSP 45

Solo Flight

Disclaimer

Opinions expressed remain those of the author and do not represent Department of National Defence or Canadian Forces policy. This paper may not be used without written permission.

O Her Majesty the Queen in Right of Canada, as represented by the Minister of National Defence, 2022

PCEMI 45

Solo Flight

Avertissement

Les opinons exprimées n'engagent que leurs auteurs et ne reflètent aucunement des politiques du Ministère de la Défense nationale ou des Forces canadiennes. Ce papier ne peut être reproduit sans autorisation écrite.

© Sa Majesté la Reine du Chef du Canada, représentée par le ministre de la Défense nationale, 2022

Canada

CANADIAN FORCES COLLEGE – COLLÈGE DES FORCES CANADIENNES

JCSP 45 – PCEMI 45 2018 – 2020

SOLO FLIGHT

THE ASIA-PACIFIC POWDER KEG: CHINA'S GROWING CONVENTIONAL AND ASYMMETRIC STRENGTH AND ITS THREAT TO THE WEST

Major Nicholas Arakgi

"This paper was written by a candidate attending the Canadian Forces College in fulfilment of one of the requirements of the Course of Studies. The paper is a scholastic document, and thus contains facts and opinions which the author alone considered appropriate and correct for the subject. It does not necessarily reflect the policy or the opinion of any agency, including the Government of Canada and the Canadian Department of National Defence. This paper may not be released, quoted or copied, except with the express permission of the Canadian Department of National Defence."

"La présente étude a été rédigée par un stagiaire du Collège des Forces canadiennes pour satisfaire à l'une des exigences du cours. L'étude est un document qui se rapporte au cours et contient donc des faits et des opinions que seul l'auteur considère appropriés et convenables au sujet. Elle ne reflète pas nécessairement la politique ou l'opinion d'un organisme quelconque, y compris le gouvernement du Canada et le ministère de la Défense nationale du Canada. Il est défendu de diffuser, de citer ou de reproduire cette étude sans la permission expresse du ministère de la Défense nationale."

THE ASIA-PACIFIC POWDER KEG: CHINA'S GROWING CONVENTIONAL AND ASYMMETRIC STRENGTH AND ITS THREAT TO THE WEST

In the summer of 2019, Canadian warships HMCS *Regina* and MV *Asterix* were underway in the East China Sea after transiting the Taiwan straits. During the transit, the ships were harassed by combat aircraft of the Chinese People's Liberation Army Air Force. SU-30 fighters passed the warships at high speed from a distance of 300 meters, 30 meters off the ground. Canadian allies such as the United States, Japan, Australia, and New Zealand have had similar encounters with Chinese forces. Those encounters, while not officially considered provocative by Canadian military leaders, signal a new assertive posturing by Chinese military forces in the region, with significant implications for Canada and its allies¹. The Chinese military is expanding its conventional and asymmetric capabilities in the Asia-Pacific in order to better serve China's economic and political interests, and territorial goals in that region. That growth in military strength raises concerns about threats to western nations, including Canada, and western nations are consequently changing the way in which they prepare for conflict in the Asia-Pacific region.

To properly contextualize China's military growth in the Asia-Pacific region and the West's response to that growth, it is important to understand Chinese geopolitical interests in the region. As the world's second largest economy, eclipsed only by the United States, China's geopolitical aims within the Asia-Pacific region are focused on preserving that growing economic status and the energy requirements that come with it.

¹ CBC News "Chinese jets buzzed Canadian naval ships in East China Sea" Last updated 27 June 2019, last accessed 24 May 2020 https://www.cbc.ca/news/politics/china-fighters-buzzed-regina-asterix-east-china-sea-1.5193149

China's protection of its economic position includes securing strategic lines of communication, particularly over sea routes from areas such as Southwest Asia, The Middle East and Saharan Africa. Of particular focus are the three seas of China's coastal regions, the Yellow, East and South China Seas, which are considered Chinese home waters and are the base of the majority of the sea routes which lead to the energy rich regions of the Middle East and beyond. These seas are also believed to contain significant natural resources themselves². These strategic Chinese geopolitical interests have motivated China to develop into a powerful seafaring nation with a focused maritime strategy.

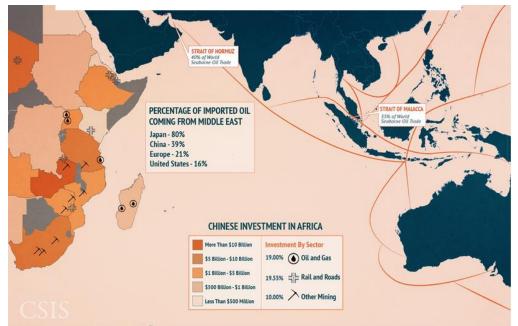


Figure 1: Major Asia-Pacific energy shipping lanes and Chinese economic interests in Africa

Source: Business Insider "The South China Sea will be the battleground of the future" last updated 06 February 2016 last accessed 24 May 2020 https://www.businessinsider.com/why-the-south-china-sea-is-so-crucial-2015-

²

² Bernard D. Cole *China's Quest for Great Power: Ships, Oil and Foreign Policy*, (Naval Institute Press, Annapolis 2016), 34

China's maritime strategy and military growth is driven by several priorities. Chief among them is developing the capability to exert military power and sea control among certain island chains that begin from the Chinese coast outwards. While the specification of those chains admits of some variation, there are common geographical reference points. According to a 2012 doctrinal handbook of the People's Liberation Army Navy, the first Island Chain involves the Japanese archipelago, Ryukyu Islands, Taiwan, and the Philippines. The Second Island chain includes Benin Islands, Northern Mariana's, Guan, Palau, and Yap Islands. The third island chain, although defined more conceptually, consists of waters past the Hawaiian Islands and beyond; the Chinese aim of exerting power in that third chain challenges the United States in what China considers "rear areas" of the United States military³. As Chinese military power grows, it plans to exert influence farther and farther out into the island chain areas.

³ Andrew Erickson and Joel Wuthnow "Barriers, Springboards and Benchmarks: China Conceptualizes the Pacific Island Chains" *The China Quarterly* (January 2016), 11

Image: manual state state

Figure 2: Chinese First and Second Island Chains in the Pacific (As defined by the People's Liberation Army Navy)

Source: Andrew Erickson and Joel Wuthnow "Barriers, Springboards and Benchmarks: China Conceptualizes the Pacific Island Chains" *The China Quarterly* (January 2016)

A further illustration of the close relationship between China's political and

economic interests and its military strategy is a 2015 Chinese Defense White Paper,

which articulates China's defence thinking from a truly global perspective. The white

paper is divided into six key sections:

- The National Security Situation, which articulates that Chinese security comes primarily from the maritime domain;
- Missions and Strategic Tasks of China's Armed Forces, which focuses on securing China's overseas economic interests, the well-being of Chinese nationals living abroad, and the growth of Chinese companies operating abroad;

- Strategic guideline of active defense, which articulates an evolution from littoral defense to blue water operations and strategic nuclear deterrence;
- Building and development of China's Armed Forces, which emphasizes fighting conflict in an environment heavily laced with information operations;
- Preparation for the military struggle, which qualifies historical Chinese thinking about defensive warfare with discussions of active defense, and the navy becoming a maritime power in "every corner of the globe"
- Military and security cooperation⁴

Military thinking along these lines demonstrates China's rise to a truly global military power, which will put it into potential conflict with other competing powers.

In line with the geopolitical aims and military thinking described above, China is conducting a rapid build-up of military hard power capabilities that will cause it to rival both regional powers and the dominance of the United States Navy in the Asia-Pacific. Chinese naval strength in particular is growing. At this time, the Chinese Navy currently possesses a fleet of over 400 warships, whereas its main rival, the United States Navy, currently operates a fleet of 288 warships. Although numerically inferior to the Chinese fleet, the American fleet still contains a more powerful and balanced force of aircraft carriers, surface combatants, and submarines. That said, China is rapidly building more modern warships and may develop its fleet to the point of parity with the American fleet by 2030⁵. In 2018 alone, China continued an ambitious shipbuilding program, with numerous surface combatants completed and put to sea. The ships completed that year included four Renhai Class cruisers, three Luyang III destroyers, and numerous Jiangkai II class frigates, all of which are armed with a modern suite of weapons systems to

⁴ Cole, China's Quest for Great Power: Ships, Oil and Foreign Policy..., 29

⁵ Reuters News "The China Challenge" last updated 30 April 19 last accessed 24 May 2020 https://www.reuters.com/investigates/special-report/china-army-navy/

engage a variety of air, surface, and submarine threats⁶. China's construction of modern warships is creating capabilities that match those of western counterparts.

China's amphibious and naval aviation capabilities are also developing. China has two separate classes of amphibious warships under construction: the Type 071 and 075. Both these designs are comparable to western designs, and the Type 075 landing helicopter assault ship in particular— a large helicopter carrying "through deck" design dwarfed only by the American *Wasp* class—is a huge leap in the country's expeditionary warfare capabilities. These ships will give China new modern capabilities to conduct opposed amphibious landings of the kind that would be required in the numerous island chains which exist in the Asia-Pacific; those capabilities could of course also be employed to escalate China's longstanding antagonism towards Taiwan⁷. China's aircraft carrier program is also making great strides towards matching the aircraft carrier capabilities of the United States Navy. In addition to the Russian built *Liaoning*, a second domestically built carrier is believed to have completed sea trials in 2019. A key weakness of these current designs is their limited ability to conduct short takeoff but arrested recovery operations, which makes those carriers unable to carry the same amount of aircraft or launch a similar amount of sorties as American carriers of comparable design. These shortcomings are expected to diminish as Chinese designs improve; future larger Chinese carriers will incorporate catapult launch systems to solve these problems and increase the possible weapons payloads of Chinese naval aircraft⁸. Although

 ⁶ Office of the Secretary of Defense. Annual Report to Congress: Military and Security Developments involving the People's Republic of China 2019 (Washington D.C. Department of Defense, 2019), 36
⁷ James E. Fanell "Asia Rising: China's Global Naval Strategy and Expanding Force Structure" Naval War College Review 72, No 1 (Winter 2019): 21

⁸ Office of the Secretary of Defense. Annual Report to Congress: Military and Security Developments involving the People's Republic of China 2019..., 37

currently limited in comparison to American carriers, Chinese carriers are rapidly developing naval aviation capabilities comparable to those of American carriers.

In addition to developing its mobile naval forces, China has begun a rapid militarization of small islands under its control in Asia-Pacific waters to contribute to its sea control efforts in the region. Since 2013, China has launched significant reclamation projects on small islands and geographical features in the South China Sea. These include turning small reefs and shoals into larger bases capable of operating military equipment, and building airstrips, ports, and barracks capable of supporting military operations. The Chinese military has begun using that infrastructure for such purposes as deploying fighter aircraft and surface-to-air missile systems to Woody Island in the Paracels chain, and high frequency radar systems to locations such as Cuarteron Reef in the Spratly Island Chain⁹. These militarization efforts not only exert Chinese military influence out into the Pacific Ocean (and into the first and second island chains), but assists in protecting Chinese interests from the competing claims of other countries in the region.

⁹ Cheng-Chwee Kuik "China's Militarization in the South China Sea: Three Target audiences" *East Asian Policy* (Apr 2016), 18



Figure 3: Chinese land reclamation, "before and after" Fiery Cross Reef – Spratly Islands

Source: US-China Economic and Security Review Commission "China's Building in the South China Sea: Damage to Marine Environment, Implications and Maritime Law" (Washington D.C. United States Congress 12 April 2016), 4

While Chinese military power is growing at a formidable rate to challenge western military dominance in the region, China's military capabilities are still notably weaker than those of its potential adversaries in the region. While Chinese naval growth is impressive, it still maintains a historical deficiency in anti-submarine warfare capabilities. For example, although shipyards have launched several modern Chinese warships comparable in design to western counterparts, the Chinese Navy suffers from a notable shortage of anti-submarine helicopters, and so Chinese warships that can support such helicopters are often put to sea without them¹⁰. China also still has insufficient replenishment-at-sea ships for its large fleet that has blue-water aspirations, and although modern Chinese surface combatants approach parity with western counterparts, they still depend on foreign sources for certain key systems (e.g., propulsion) and have yet to develop domestic sources for those components¹¹. Furthermore, while China has rapidly built a string of impressive military island bases in less than a decade, they are also not without issues that raise questions about their effectiveness. Chinese media have admitted that special measures were needed to support a short deployment of J-11 fighter aircraft to the Paracel Islands in 2017, which was challenged by the heat and humidity of the region. China's rapid building of infrastructure on reclaimed islands in the South China Sea has been criticized for not anticipating the corrosion, collapse, and frequent equipment breakdowns that heat and humidity would bring about. Concerns also exist that Chinese bases on low-lying reclaimed land are unlikely to survive any type of significant weather event common in the Pacific region¹². In summary, China's conventional military strength is approaching parity with that of such western counterparts as the United States, but it still suffers several weaknesses.

Meanwhile, China is complementing the growth of its conventional military strength in the Asia Pacific region by developing significant asymmetric capabilities, which would affect any potential future military conflict in the region. China maintains large cyber warfare capabilities, which not only support its conventional military efforts

¹⁰ Shahryar Pasandideh "China's fleet review showcased its naval achievements, and some enduring weaknesses" *World Politics Review* (blog) May 10, 2019,

https://www.worldpoliticsreview.com/articles/27836/china-s-fleet-review-showcased-its-naval-achievements-and-some-enduring-weaknesses

¹¹ Cole, China's Quest for Great Power: Ships, Oil and Foreign Policy...105

¹² Steven Stashwick "China's South China Sea militarization has peaked" Foreign Policy 19 August 2019,3

but also provide an asymmetric capability in their own right. People's Liberation Army Unit 61398 is believed to be one of the premier cyber warfare units within the Chinese military. This unit is in regular operation, and one of its focuses is the preparation of asymmetric attacks on adversarial critical infrastructure. Unit 61398 was forensically linked to one such attack in 2013 when a Japanese cyber-security firm lured a cyber attacker into believing its baited systems were those of the control systems of a water plant within the United States. That ruse encouraged a cyber-attack, and the incident matched with Chinese military doctrine that mandates the use of cyber warfare tactics in times of war to damage adversarial infrastructure such as power systems, telecommunications, and educational systems¹³. In addition to these asymmetric capabilities to attack infrastructure, Chinese cyber warfare capability supports its conventional forces by facilitating frequent espionage attacks against industrial and military targets of western nations. Those espionage attacks not only cause significant economic damage to the targets of Chinese intellectual property theft but also aid the Chinese military in filling gaps in capability by stealing defense secrets from western contractors. Discerning those gaps is possible by looking at recent targets of Chinese cyber espionage. Several weapon systems and their associated defense contractors appear as such targets in a 2013 report—namely, Patriot missile systems, Aegis ballistic missile defense systems, the F/A-18 fighter and littoral combat ships. Those targets indicate China's interest in surface-to-air missile systems, naval aviation, and small warships.¹⁴ These examples illustrate how significant China's cyber warfare capabilities

¹³ Dr. Larry M Wortzel "China's Military Modernization and Cyber Activities: Testimony before the House Armed Services Committee" *Strategic Studies Quarterly* 8 No. 1 (Spring 2014) 12 ¹⁴ *Ibid.*, 12

are; those capabilities facilitate asymmetric attacks on economic infrastructure targets and thereby support China's developing conventional military force and the use of that conventional force against western targets.

Supporting China's conventional naval combat forces in the Asia-Pacific is a large force of auxiliary and paramilitary ships. The China Coast Guard, informally known as "China's Second Navy", plays a major role in asserting Chinese sovereignty in the Asia-Pacific, and specifically in the South China Sea. In 2014 the China Coast Guard had grown to a significant force of over 80 vessels weighing over 1,000 tons. These warships operate not only in Chinese coastal areas but also in many other areas in which China intends to exert influence, often at the expense of other nations. As with any coastal nation, China claims certain maritime rights under the auspices of the United Nations Convention on the Law of the Sea; these include 12 nautical mile territorial seas, 200 mile economic exclusion zones, and further historical territorial claims connected to China's supposed extended continental shelf and its "nine dash line" boundary, which is disputed by nations such Japan, the Philippines, and Vietnam. China's fleet of auxiliary and paramilitary ships is used as a non-combat force to declare China's sovereignty in disputed waters and to defend those waters from alleged intrusion by unwanted shipping. The actions of that fleet have had implications for the west; in one instance in 2013, China Coast Guard ships harassed the unarmed United States Naval surveillance ship *Impeccable* in the East China Sea in 2013¹⁵. Foreign vessels, including unarmed military vessels such as Impeccable, are facing increasing acts of intimidation by Chinese paramilitary patrols.

¹⁵ Ryan D. Martinson "China's Second Navy" Proceedings 141, No 4/1,346 (April 2015), 9

Another support for China's powerful conventional forces in the Asia-Pacific is a sophisticated program of Anti-Access, Area Denial weapons in the region. These weapons play both a conventional and, more importantly, asymmetric role in China's military influence in the region. China possesses numerous types of powerful missile systems and has deployed them to many of its claimed islands in the South China Sea with the aim of, off-setting its potential adversary's main strength: the United States aircraft carrier battle group. China recently deployed a DF-26 missile brigade to an undisclosed location; those anti-carrier ballistic missiles have a range of 2,200 nautical miles and are therefore a potent threat to American warships in the Pacific. Other weapons such as the DF-21D anti-ship ballistic (1,000 nautical mile range) have been deployed to Hainan Island, and further YJ-12B surface-to-surface and HQ-9 surface-to air missiles have been sent to the Spratly Island chain 16 . In addition to this obvious conventional threat to American and allied naval forces, these weapons play an important asymmetric role on Chinese islands under international dispute by establishing protected bastions for the numerous paramilitary, and civilian Chinese flagged vessels (e.g., fishing fleets) which use those islands as a base from which to exert Chinese sovereignty and harass foreign vessels in the region¹⁷. That protection discourages other nations from challenging China's asymmetric paramilitary action.

¹⁶ Fanell, "Asia Rising: China's Global Naval Strategy and Expanding Force Structure" *Naval War College Review....*, 24

¹⁷ Gregory D. Poling "The Conventional Wisdom on China's island bases is terribly wrong" *War on the Rocks* (blog) 10 January 2020 https://warontherocks.com/2020/01/the-conventional-wisdom-on-chinas-island-bases-is-dangerously-wrong/

Figure 4: Suspected HQ-9 Surface-to-air missile systems on Woody Island – Paracel Islands



Source: Voice of America "China steps up militarization in South China Sea" last updated 19 February 2016 last accessed 24 May 2020 https://editorials.voa.gov/a/china-steps-up-militarization-in-south-chinasea/3199332.html

A key factor in China's conventional and asymmetric military growth is the responses it is eliciting from western nations. The more that China's hard power capabilities increase, the more western nations consider confrontation with China a possibility. China's naval rise and the militarization of islands in the South China Sea have forced a change in behavior amongst allied naval forces. This change in behavior includes reduced freedom of maneuver available to United States Navy vessels in Chinese dominated waters. In 1995-1996, the United States deployed two American aircraft carrier battle groups to the Taiwan straits as a deterrence to Chinese government protests (which included increased military maneuvers) of presidential elections on Taiwan. This forceful demonstration successfully caused the Chinese government to back down; however, in January 2019 when Chinese President Xi re-asserted his intention to use force if necessary to re-establish Chinese control over the Island, the American response was more muted with only a small detachment of warships (two destroyers) through the straits. In fact, American aircraft carriers have not sailed through the Taiwan straits in 12 years¹⁸, which illustrates America's reluctance to escalate any conflict by challenging Chinese sea control of the region

To counter these exertions and claims of Chinese control in these areas, such as the South China Sea, the United States and its allies (including Canada) have begun to conduct "freedom of navigation exercises" in close proximity to Chinese territorial waters to challenge Chinese claims. However, compared to historical movements of large aircraft carrier battle groups, these exercises have been limited to token efforts by single warships or small groups of warships, for fear of antagonizing China excessively. One such token effort involved the American destroyer USS *Wayne E. Meyer* purposely sailing in close proximity to Chinese Paracels and Spratly Island chains in the summer of 2019, during which time the Canadian frigate HMCS *Ottawa* was sailing through the Taiwan straits. Although Canada officially does not conduct freedom of navigation maneuvers like the United States, both movements were closely monitored by the Chinese military¹⁹. While these transits are effectively protests against China's disputed territorial claims, they remain symbolic gestures that would likely not endure if China were to object to them in time of conflict. The 2018 freedom of maneuver operation by

¹⁸ Reuters News "The China Challenge"...

¹⁹ Ankit Panda "South China Sea: US Navy warship conducts freedom of navigation operation near Paracel Islands" *The Diplomat* 15 September 2019, 3; Stephen Chase "For a second time in three months, Canadian warship transits Taiwan Strait" *The Globe and Mail*, 10 September 2019

Britain's HMS *Albion* through the Paracel islands, for example, demonstrates that these transits remain symbolic. The *Albion*, although a large Royal Navy amphibious transport dock, possessed a limited capability to defend itself against the Chinese frigate which challenged it²⁰. As China exerts greater sea control in areas such as the South China Sea, and the United States and it allies challenge these claims, more substantial naval forces will be required to operate in the area, given the risk of a forcible Chinese response to allied actions.

In addition to issues of freedom of maneuver and navigation, the United States and its allies are making changes to their force posture in reaction to Chinese military growth. In 2011, the Obama administration announced a "pivot to Asia" in which the United States would re-focus diplomatic and security engagement from the Middle East to Asia. This resulted in a significant movement of American military resources, including the re-shuffling of naval forces to have 60% deployed in the Pacific, and new security agreements with allies (e.g., the arrangement whereby 2,500 United States Marines were forward based in Australia)²¹. Allies in the region are also making changes. In 2018, the Japanese government approved the modification of its *Izumo*-class helicopter carriers to operate the F-35B joint strike fighter, and the Japanese Maritime Self-Defense force is set to operate 42 aircraft. This modification will allow Japan to operate fixed-wing aircraft carriers for the first time since the Second World War²². The Australian government has also taken steps to boost its defence posture in response to

²⁰ House of Commons Foreign Affairs Committee *China and the Rules-Based International System: Sixteenth Report of Session 2017-2019* (London: House of Commons 2019), 21

²¹ David Shambaugh "Assessing the US Pivot to Asia" *Strategic Studies Quaterly* 7, No 2 (Summer 2013),16

²² David Axe "Did somebody say Japanese aircraft carriers? Here's how Tokyo is getting flat-tops with F-35s on them" *The National Interest* 20 March 2020, 3

Chinese military power. In February 2020 it announced the runway expansion of the strategically important Royal Australian Air Force base in Tindal, Northern Australia; that expansion allows the base to operate not only Australian re-fueling aircraft but also American B-52 strategic bombers. Furthermore, Australia recently approved the purchase of 200 AGM-158 long-range anti-ship missiles to arm its own strike aircraft, thereby improving Australia's defensive position in the face of increasingly potent Chinese threats²³. As Chinese military assertiveness increases, the United States and its allies are making moves to increase the robustness of their own militaries in case of conflict.

China is a growing military threat in the Asia-Pacific and beyond. China's geopolitically motivated military growth and the threat it poses are clearly apparent. China is increasing its conventional naval strength in regions such as the South China Sea, complementing that increase with a calculated use of asymmetric capabilities such as cyber warfare and paramilitary naval forces, and thereby compelling its likely future adversaries (the United States and its allies) to adjust military operations through more restricted aircraft carrier movements and freedom of maneuver missions in waters increasingly contested by Chinese military forces. The United States and its allies are also making critical decisions to increase force posture and procure key weapons systems to ensure they are prepared for any future conflict with the People's Republic of China.

²³ Australian Strategic Policy Institute "How Australia can deter China" last updated 12 March 2020, last accessed 24 May 2020 https://www.aspistrategist.org.au/how-australia-can-deter-china/

BIBLIOGRAPHY

- Australian Strategic Policy Institute "How Australia can deter China" last updated 12 March 2020, last accessed 24 May 2020 https://www.aspistrategist.org.au/howaustralia-can-deter-china/
- Axe, David "Did somebody say Japanese aircraft carriers? Here's how Tokyo is getting flat-tops with F-35s on them" *The National Interest* 20 March 2020, 1-10
- Business Insider "The South China Sea will be the battleground of the future" last updated 06 February 2016 last accessed 24 May 2020 https://www.businessinsider.com/why-the-south-china-sea-is-so-crucial-2015-2
- CBC News "Chinese jets buzzed Canadian naval ships in East China Sea" Last updated 27 June 2019, last accessed 24 May 2020 https://www.cbc.ca/news/politics/china-fighters-buzzed-regina-asterix-east-chinasea-1.5193149
- Cole, Bernard D China's Quest for Great Power: Ships, Oil and Foreign Policy, Naval Institute Press, Annapolis 2016
- Chase, Stephen "For a second time in three months, Canadian warship transits Taiwan Strait" *The Globe and Mail*, 10 September 2019
- Erickson, Andrew and Joel Wuthnow "Barriers, Springboards and Benchmarks: China Conceptualizes the Pacific Island Chains" *The China Quarterly* (January 2016): 1-22
- Fanell, James E. "Asia Rising: China's Global Naval Strategy and Expanding Force Structure" *Naval War College Review* 72, No 1 (Winter 2019): 11-55
- Kuik, Cheng-Chwee "China's Militarization in the South China Sea: Three Target audiences" *East Asian* Policy (Apr 2016) 15-24
- Martinson, Ryan D. "China's Second Navy" Proceedings 141, No 4/1,346 (April 2015), 1-29
- Panda, Ankit "South China Sea: US Navy warship conducts freedom of navigation operation near Paracel Islands" *The Diplomat* 15 September 2019, 1-5

- Pasandideh, Shahryar "China's fleet review showcased its naval achievements, and some enduring weaknesses" *World Politics Review* (blog) May 10, 2019, https://www.worldpoliticsreview.com/articles/27836/china-s-fleet-reviewshowcased-its-naval-achievements-and-some-enduring-weaknesses
- Poling, Gregory D. "The conventional wisdom on China's island bases is terribly wrong" *War on the Rocks* (blog) 10 January 2020 https://warontherocks.com/2020/01/theconventional-wisdom-on-chinas-island-bases-is-dangerously-wrong/
- Reuters News "The China Challenge" last updated 30 April 19 last accessed 24 May 2020 https://www.reuters.com/investigates/special-report/china-army-navy/
- Shambaugh, David "Assessing the US Pivot to Asia" *Strategic Studies Quarterly* 7, No 2 (Summer 2013) 10-19
- Stashwick, Steven "China's South China Sea militarization has peaked" *Foreign Policy* 19 August 2019, 1-7
- United Kingdom, House of Commons Foreign Affairs Committee China and the Rules-Based International System: Sixteenth Report of Session 2017-2019 London: House of Commons 2019
- United States. US-China Economic and Security Review Commission "China's Building in the South China Sea: Damage to Marine Environment, Implications and Maritime Law" Washington D.C. United States Congress, 12 April 2016
- United States. Office of the Secretary of Defense. Annual Report to Congress: Military and Security Developments involving the People's Republic of China 2019 Washington D.C. Department of Defense, 2019
- Voice of America "China steps up militarization in South China Sea" last updated 19 February 2016 last accessed 24 May 2020 https://editorials.voa.gov/a/china-stepsup-militarization-in-south-china-sea/3199332.html
- Wortzel, Dr Larry M."China's Military Modernization and Cyber Activities: Testimony before the House Armed Services Committee" *Strategic Studies Quarterly* 8 No. 1 (Spring 2014) 3-22