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Flashpoint Taiwan

Lieutenant-Commander Robert Gilpin

JCSP 48

Service Paper

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CANADIAN FORCES COLLEGE – COLLÈGE DES FORCES CANADIENNES

JCSP 48 – PCEMI 48

2021 – 2022

Service Paper – Étude militaire

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FLASHPOINT TAIWAN

AIM

1. The aim of the service paper is to provide a strategy for Canada and its allies to deter China from taking military action to reunify Taiwan. A strategy combining deterrence by denial and deterrence by punishment is described including specifics on how the Canadian Armed Forces (CAF) can directly contribute to the allied effort. The deterrence strategies presented in this paper centre around strengthening Taiwan defences and implementing a Taiwanese scorched earth policy if a successful Chinese invasion occurs. Outside the scope of this service paper are countless other ways to deter the Chinese Government such as economic sanctions, diplomatic penalties, information warfare, and special forces options.

INTRODUCTION

2. China's large economy and rising power in the Asia-Pacific has sparked the US-China rivalry to higher levels than seen in the past. One potential flashpoint that could lead to a military conflict is Taiwan.¹ President Xi Jinping and the Chinese Communist Party (CCP) have made it clear that Taiwan reunification is a major priority for China. Xi has increased threats to use force if diplomatic efforts fail.² Although there is much debate about when or if China will use military force to regain Taiwan the People's Liberation Army (PLA) is preparing for a contingency to attack Taiwan.³

3. Canada, like the US and much of the international community, recognizes the People's Republic of China (PRC) as the sole legal government of China, known as the One China policy.⁴ In accordance with the One China policy, Ottawa does not officially recognize Taiwan, however, it maintains unofficial relations through the Canadian Trade Office in Taipei. Taiwan is Canada's 13th largest trading partner with exports of \$2 billion and imports of close to \$6 billion.⁵ Taiwan is strategically important to Canada due to its geographic location placing it within China's Anti-Access Area Denial (A2AD) zone.⁶ In addition, Taiwan is a likeminded democracy that has a very strong technology

¹Lowy Institute, "Countering China's Adventurism over Taiwan: A Third Way," accessed January 14, 2022, <https://www.lowyinstitute.org/publications/countering-china-s-adventurism-over-taiwan-third-way>.

² Tony Munroe and Yew Lun Tian, "China Sharpens Language, Warns Taiwan That Independence 'Means War,'" *Reuters*, January 28, 2021, <https://www.reuters.com/article/us-china-taiwan-idUSKBN29X0V3>.

³ "China Sharpens Language, Warns Taiwan That Independence 'Means War,'" *Reuters*.

⁴ Center For Strategic and International Studies, "What Is the U.S. 'One China' Policy, and Why Does It Matter?," accessed January 15, 2022, <https://www.csis.org/analysis/what-us-one-china-policy-and-why-does-it-matter>.

⁵ Global Affairs Canada, "Canada and Taiwan Relations," GAC, April 25, 2017, <https://www.international.gc.ca/world-monde/taiwan/relations.aspx?lang=eng>.

⁶ The Strategy Bridge, "Defeating Anti-Access/Area Denial in the West Pacific," accessed January 16, 2022, <https://thestrategybridge.org/the-bridge/2016/8/25/defeating-anti-access-area-denial>.

sector which provides most of the world's advanced microchips, called semiconductors.⁷

4. China is operating in the grey zone employing several below the threshold tactics using a whole-of-government approach to coerce Taiwan to reunify with mainland China.⁸ The tactics include harassing military action such as warplane incursions into Taiwan's Air Defence Identification Zone (ADIZ), sailing warships through the Taiwan Strait, and cyber-attacks on Taiwanese infrastructure.⁹ China is also operating in the information domain and non-military domain by imposing limits on Chinese tourism to Taiwan and pressuring global airlines, hotel chains and other business to list Taiwan as a Chinese province.¹⁰

5. The China-Taiwan disagreement has not become a major conflict and remains relatively stable due to: China's geostrategic patience, Taiwan not declaring independence, and the US position of strategic ambiguity relating to Taiwan's defence.¹¹ China understands that a conflict with Taiwan would mean heavy casualties on both sides with or without US intervention and it would almost certainly cause geopolitical instability in the Asia-Pacific which would hinder Chinese attempts to become the regional hegemon.¹² When discussing deterrence options it is essential to ensure these three pillars are maintained.

6. Increasing Chinese aggression in the region is reason for Canada, the US, and other allies to determine a strategy to deter China from invading Taiwan. This service paper will provide options to deter China from using force against Taiwan. These options attempt to maintain the status quo and not increase tension with China. They allow Canada to remain strategically ambiguous when it comes to military support in the event of a Chinese invasion. It is recommended that Canada remains ambiguous about full military support to Taiwan to allow the Government of Canada more options that do not force Canada into a war with China. This service paper will define deterrence and then present options for Canada and allies that aim to deter Chinese aggression by denial and punishment without escalating the conflict.

DISCUSSION AND ANALYSIS

7. Flashpoint Taiwan will remain a potential area for conflict until China sees it return to a unified province. In the past, the US and its allies would ultimately win in a conflict with China over the island. US military intervention was the major deterring factor in Beijing's calculus on its Taiwan policy of maintaining the status quo. Today

⁷ Dow Jones Institutional News, "The World Relies on One Chip Maker in Taiwan, Leaving Everyone Vulnerable," June 19, 2021, 2542954472, ProQuest Central, <https://www.proquest.com/wire-feeds/world-relies-on-one-chip-maker-taiwan-leaving/docview/2542954472/se-2?accountid=9867>.

⁸ Council on Foreign Relations, "Why China-Taiwan Relations Are So Tense," accessed January 16, 2022, <https://www.cfr.org/background/china-taiwan-relations-tension-us-policy>.

⁹ "Why China-Taiwan Relations Are So Tense."

¹⁰ "Why China-Taiwan Relations Are So Tense."

¹¹ "Countering China's Adventurism over Taiwan."

¹² BBC News, "What's behind the China-Taiwan Divide?," May 26, 2021, sec. Asia, <https://www.bbc.com/news/world-asia-34729538>.

China can contest or win a war over Taiwan which means that the threat of US military intervention may not be the only deterrence required.¹³

8. Deterrence is defined as “discouraging states from taking unwanted actions, especially military aggression.”¹⁴ The two main options to execute deterrence is by denial and punishment. Denial methods attempt to deter an enemy action by making it difficult or impossible for the action to succeed. This is normally done through defensive military systems but can take other forms as well.¹⁵ Deterrence by punishment threatens penalties in the event the adversary conducts the unwanted acts.¹⁶ It can include the threat of escalation of hostilities, diplomatic threats, and threat of economic sanction. Canada, US, and its allies will need to act in both categories to be successful in deterring China. First, deterrence by denial will be discussed focusing on hardening Taiwan’s defensive capabilities. Second, deterrence by punishment will be considered which focuses on a scorched earth strategy.

Deterrence By Denial – Porcupine Strategy

9. The first step in deterring China is to strengthen Taiwan. This is often referred to as the porcupine strategy in the literature.¹⁷ The strategy consists of acquiring smaller, less complex, and more mobile weapons systems that can be used in a strictly defensive posture to defend the island.¹⁸ This would represent a shift from power projection weapons and platforms that Taiwan has purchased from the US in the past. To strengthen island defences, Canada could focus Taiwan’s efforts on the following capabilities: space-based sensors, cyber operations, autonomous weapons and vehicles, smart sea mines, and portable anti-air and anti-ship missiles.¹⁹

10. The Five Eyes (FVEY) community has the ability provide advanced warning of a Chinese amphibious assault through an agreement to access space-based sensors to provide real-time intelligence. Providing extra warning time to Taiwan would allow the activation of military reserves and prepare the general population for airstrikes and blockades expected in advance of invasion. The space domain will prove critical in providing warning of a troop build-up and associated naval amphibious assault force on mainland China. Although the CAF’s space assets are limited the Sapphire space surveillance satellite would be a useful asset in a contested or hostile space domain. The Chinese have anti-satellite technology that includes anti-satellite weapons and killer

¹³ James Dobbins et al., “Conflict with China: Prospects, Consequences, and Strategies for Deterrence” (Rand Arroyo Center Santa Monica Ca, January 1, 2011), <https://apps.dtic.mil/sti/citations/ADA551039>.

¹⁴ Michael J. Mazarr, “Understanding Deterrence” (Santa Monica, CA: RAND Corporation, 2018), <https://doi.org/10.7249/PE295>.

¹⁵ Mazarr.

¹⁶ Mazarr.

¹⁷ Texas National Security Review, “A Large Number of Small Things: A Porcupine Strategy for Taiwan,” December 7, 2021, <https://tnsr.org/2021/12/a-large-number-of-small-things-a-porcupine-strategy-for-taiwan/>.

¹⁸ The Economist, “Dire Strait,” January 26, 2019, Canadian Business & Current Affairs Database; ProQuest Central.

¹⁹ “A Large Number of Small Things.”

satellites that disable satellites with articulating arms. Sapphire could provide warning to allied satellites targeted by China during a conflict over Taiwan.²⁰ The warning would allow friendly satellites to take evasive action or allow for a counter strike by allied forces.

11. Increasing Taiwan's cyber operations will be critical to strengthen the island defences. In the days and weeks leading up to an invasion China will certainly conduct cyber-attacks on Taiwan's critical infrastructure to degrade defences.²¹ To ensure Taiwan is able to fight in the cyber domain the CAF could invite Taiwanese cyber operators to participate in the cyber operator course held at the Canadian Forces School of Communications and Electronics.²² In addition to training, the CAF could also provide direct covert offensive cyber effects aimed at mainland China to degrade their military capabilities before or after a Chinese attack. Although this option is attractive, in the event China determines Canada or other allies are acting in the cyber domain repercussions should be expected and kinetic attack against Canadian assets or people are possible.

12. The most effective way to stop a Chinese invasion is to attack the amphibious force in the Taiwan Strait using sea denial techniques.²³ For example, land or vehicle Harpoon anti-ship missiles, mobile air defence systems, and smart sea mines are all options the FVEY community could equip and train Taiwan forces with to make a Chinese invasion costly.²⁴ Denial of the Strait would likely be a temporary measure. However, with strong maritime domain defences amphibious forces would suffer heavy casualties in the crossing which would impact China's decision to invade. The Royal Canadian Navy (RCN) has been employing the Advanced Harpoon Weapons System since 1998 and has conducted countless test firings.²⁵ Like in the cyber domain, the RCN could offer training to the Taiwanese operators of the missile system through the Above Water Weapons Course. The course would produce operators capable of employing the missiles efficiently with operational level effect.

Deterrence by Punishment – Scorched Earth Strategy

13. Even with the strategies listed to strengthen Taiwan and with the US joining in a repelling force China would likely win a conventional war for Taiwan.²⁶ As China

²⁰ National Defence, "Space Situational Awareness and the Sapphire Satellite," backgrounders, January 30, 2014, <https://www.canada.ca/en/news/archive/2014/01/space-situational-awareness-sapphire-satellite.html>.

²¹ "Countering China's Adventurism over Taiwan."

²² National Defence, "Congratulations to the First Cyber Operator Graduates from the CFSCE," September 21, 2021, <https://www.canada.ca/en/department-national-defence/maple-leaf/defence/2021/09/congratulations-first-cyber-operator-graduates-cfscr.html>.

²³ The Economist, "Dire Strait."

²⁴ Jared McKinney and Peter Harris, "Broken Nest: Deterring China from Invading Taiwan," *The US Army War College Quarterly: Parameters* 51, no. 4 (November 17, 2021): 23–36.

²⁵ Boeing, "Canada Buys Boeing Advanced Harpoon Weapon Control System," MediaRoom, accessed January 19, 2022, <https://boeing.mediaroom.com/1998-08-10-Canada-Buys-Boeing-Advanced-Harpoon-Weapon-Control-System>.

²⁶ McKinney and Harris, "Broken Nest," 36.

continues to grow in economic and military power, deterrence by punishment will be just as important as deterrence by denial. The punishments must make China believe that the status quo remains a better option rather than invading Taiwan for unification. These actions centre around a Taiwanese scorched earth policy.²⁷

14. The first essential portion of deterrence by punishment is to demonstrate to China that Canada and its allies will not tolerate a Chinese invasion of Taiwan. Following the lead of the US, Canada should continue its presence in the Asia-Pacific using the RCN. The latest freedom of navigation passage through the Taiwan Strait was conducted by HMCS Winnipeg with USS Dewey in October 2021. China condemned the passage claiming that it is escalating tensions in the area. However, it was a clear demonstration that Canada will not tolerate Chinese aggression in the region.²⁸ These operations allow Canada to maintain strategic ambiguity but also reinforces Canada's position on Chinese aggression. It demonstrates to Taiwan and other countries in the region that Canada will not stand by and allow China to impede on the rules-based order of the world.

15. The second portion of deterrence by punishment is the establishment of a scorched earth policy if Taiwan is taken by force. The policy would centre around the destruction of Taiwan's semiconductor industry. Semiconductors, also called microchips, are at the centre of most of modern-day electronics like smart phones. The Taiwan Semiconductor Manufacturing Co (TSMC) is responsible for production of 54% of the world's semiconductors. Overall, Taiwan is responsible for 64 % in total.²⁹ A graph showing the production of semiconductor manufacturers by country (inner ring) and company (outer ring) is shown in Figure 1.

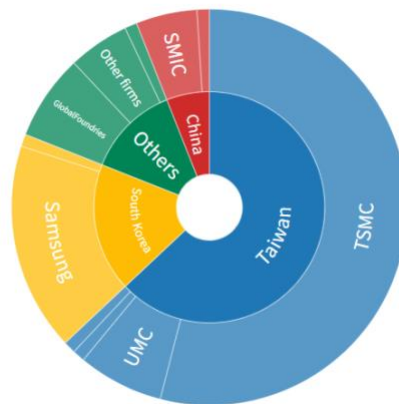


Figure 1: Semiconductor Manufacturers by market Share 2020

Source: Yen Nee Lee, How Much the World Depends on Taiwan for Semiconductors

²⁷ McKinney and Harris, 35.

²⁸ Thomson Reuters, "China Condemns Canada, U.S. for Sending Warships through Taiwan Strait," CBC, October 17, 2021, <https://www.cbc.ca/news/politics/china-canada-warships-taiwan-strait-1.6214303>.

²⁹ Yen Nee Lee, "2 Charts Show How Much the World Depends on Taiwan for Semiconductors," CNBC, March 16, 2021, <https://www.cnbc.com/2021/03/16/2-charts-show-how-much-the-world-depends-on-taiwan-for-semiconductors.html>.

16. Figure 1 shows China as a manufacturer of semiconductors however this is misleading. Production of semiconductors requires special equipment which is only available from the Dutch company ASML.³⁰ The Trump administration put China's SMIC on the entity list (blacklist) and pressured the Dutch Government not to allow their technology to be bought by China (SMIC), limiting Chinese production of microchips.³¹ If China invades Taiwan, the Taiwanese Government should destroy TSMC and UMC. Samsung in South Korea as a US ally would stop semiconductor sales to China.³² Without semiconductor technology China would suffer economically and the technology sector would come to a halt. The disruption of the Chinese technology sector and damage to the economy could cause a loss of public support for the CCP. China's main goal of becoming the regional hegemon would be in jeopardy. It would be fighting a costly counterinsurgency on Taiwan and the public would grow hostile toward the CCP for the heavy casualties on the island and the declining economy.

17. Due to China's large economy, growing military, and damage to relationships done by the Trump administration many Asian countries are not interested in supporting the US or its allies in preparing for a war against China.³³ If China attacked Taiwan this would likely change for fear of an expanding China. A shift back toward the US would be likely. Canada and the FVEYs could play a major role in creating a multilateral counterbalancing force consisting of countries like South Korea, Japan, Indonesia, Philippines, Singapore, etc. To ensure neighbouring countries feel protected Canada and the US can start relationship building now by conducting naval, air, and army exercises without pressuring these countries for support in the form of forward deployed military assets or bases. The counterbalance force in the region will slow China's economic rise and will cause geopolitical instability which would limit the "Belt and Road" initiative and hinder the Chinese ability to reach superpower status.

CONCLUSION

18. If Taiwan remains a breakaway province it will remain a possible military flashpoint between China and the US, Canada, and their allies. The stabilizing factors of geopolitical patients of China, Taiwan independence status, and US strategic ambiguity have started to erode causing a need to re-evaluate the deterrence methods employed by Canada and the FVEYs. A full-scale conventional war between China and the US would have devastating human, environmental and economic consequences which could lead to a nuclear exchange. Therefore, when considering deterrence methods care should be taken not to threaten the Chinese homeland.

19. Implementing the porcupine and scorched earth strategies would likely make China consider the status quo advantageous when comparing it to a costly invasion of Taiwan. If China did act the combination of these deterrence strategies would hinder Chinese ascent to Asia's hegemon and superpower status. It would inflict damage to the

³⁰ Lee.

³¹ Lee.

³² McKinney and Harris, "Broken Nest," 30.

³³ "Countering China's Adventurism over Taiwan."

PLA which would take years to recover from. As a result, the Chinese mainland would be more vulnerable to conventional attack. Although these deterrence methods make invasion less likely, if Taiwan declares independence or China grows tired of the status quo the Chinese military will attack Taiwan.

20. If these deterrence measures fail, Canada and the US should be ready to decide what they will do in the event of Chinese aggression against Taiwan. It remains within the purview of the Canadian people, through the Prime Minister of Canada, to decide what actions the CAF will take in the event of a Chinese invasion. For this reason, the CAF should continue to implement the defence policy set out in Strong, Secure, Engaged (SSE) to maintain the ability to act across the spectrum of conflict.

RECOMMENDATIONS

21. The first recommendation is for the CAF to continue on the path set forth in SSE. As China continues its ascent to Asia's regional hegemon there is a possibility of regional level conflict that could draw in Canada and the FVEY. This could be sparked by Taiwan, or it could be another bold act that brings Canada into a military conflict with China. Having a combat capable force as laid out in SSE allows the Government of Canada options required to span the spectrum of conflict to counter Chinese aggression.

22. Next, if the CAF was directed to increase military to military relations with Taiwan the CAF can provide training in specific areas that would enhance the defence of the island. Two examples are the Cyber Operator Course and the RCN Above Water Warfare Course.

23. Finally, the CAF should continue to be engaged in the Asia-Pacific with the FVEY partners. This can be done at the force generation level handled by the Service Chiefs, but an overall engagement strategy devised by the Canadian Joint Operations Command would be beneficial. The best methods to accomplish partner building is through joint military exercises in the Asia-Pacific and conducting exercises closer to home that involve Asian partner nations. If China becomes more aggressive and turns to the use of military force Canada and the FVEYs will require strong allies in the region in addition to Japan, and South Korea.

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