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# Barriers, Springboards and Benchmarks: China Conceptualizes the Pacific "Island Chains"\*

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#### Abstract

US government reports describe Chinese-conceived "island chains" in the Western Pacific as narrow demarcations for Chinese "counter-intervention" operations to defeat US and allied forces in altercations over contested territorial claims. The sparse scholarship available does little to contest this excessively myopic assertion. Yet, further examination reveals meaningful differences that can greatly enhance an understanding of Chinese views of the "island chains" concept, and with it important aspects of China's efforts to develop as a maritime power. Long before China had a navy or naval strategists worthy of the name, the concept had originated and been developed for decades by previous great powers vying for Asia-Pacific influence. Today, China's own authoritative interpretations are flexible, nuanced and multifaceted – befitting the multiple and sometimes contradictory factors with which Beijing must contend in managing its meteoric maritime rise. These include the growing importance of sea lane security at increasing distances and levels of operational intensity.

Keywords: China; island chain; strategy; military; maritime; navy

Outside observers naturally seek to understand the geostrategic basis for China's rapid maritime development. Accordingly, US scholarship and government documents regularly make assertions about Chinese military views of Western Pacific "island chains" (*daolian* 岛链). In many cases, the argument is that the People's Liberation Army (PLA) uses the island chains as benchmarks for a potential "counter-intervention" campaign directed against US and allied forces in the region. However, these analyses rarely document evidence from PLA sources. This raises important questions: how do Chinese strategists themselves



<sup>\*</sup> These are the authors' personal views, and not those of their respective institutions. For comments on earlier drafts, the authors thank Dennis Blasko, M. Taylor Fravel, Ryan D. Martinson, Ivan Rasmussen, Al Willner, and three anonymous reviewers.

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define "island chains," and how do they assess them operationally and strategically?

Drawing on manifold underutilized Chinese sources, we contend that the island chains concept is foreign in origin but adopted and reinterpreted in China, and that authoritative Chinese interpretations are flexible, nuanced and multifaceted. Geographically, Chinese writings offer varying definitions of the island chains, with some considerably more expansive than others. More importantly, Chinese sources offer diverse perspectives on the island chains' operational and strategic significance. In particular, various Chinese authors assert that the island chains are (1) barriers that China must penetrate to achieve freedom of manoeuvre in the maritime domain; (2) springboards for power projection by whomever controls a given island chain; and (3) benchmarks for the advancement of Chinese maritime and air force projection in the Asia-Pacific.<sup>1</sup> In each of these respects, the discourse on the island chains provides valuable insight into how the PLA is thinking about the challenges and opportunities facing China as it seeks to become a maritime power.

This article is organized into five sections. The first discusses foreign analyses of the concept of island chains, and suggests that many of these sources focus rigidly on counter-intervention issues. The following section addresses the origins and historical significance of the island chains concept. The article then examines Chinese views of the geographic attributes of the island chains before considering how Chinese military analysts interpret their operational and strategic significance. The final section discusses the implications for China's naval development, and for that of the US and its allies.

#### "Counter-intervention" Myopia

Foreign analyses of PLA views of island chains often focus on the role of the concept in a notional Chinese "counter-intervention" doctrine (more typically "active defence" in Chinese sources). This is apparent not only in US scholarship but also in government documents and statements by high-level US officials. Nevertheless, many of these analyses have a limited evidentiary basis at best. Consequently, there is a need to examine authoritative PLA sources to gain a better understanding of the ways in which Chinese military thinkers are actually discussing the island chains and their significance for China.

US academic and government analyses often posit that the PLA sees the island chains as thresholds demarcating the areas in which China aims to prevent US or other hostile forces from operating during a crisis. For instance, Robert Kaplan writes that the goal of the PLA navy (hereafter, PLAN) is to "dissuade" the US navy from aspiring to operate in the waters between China's coastline and the First Island Chain.<sup>2</sup> Likewise, Roger Cliff argues that Chinese force development

1 See, e.g., Huang 1994, 18.

2 Kaplan 2010.

goals in the 2000s focused on achieving the sorts of capabilities that would be needed to prevent US forces from operating inside the First Island Chain.<sup>3</sup> In addition, Michael McDevitt contends that the PLA's ambition is to control the sea areas within the First Island Chain and to contest in a credible manner the control of the areas out to the Second Island Chain, denying that space to US naval forces if necessary.<sup>4</sup>

US government documents and official statements make similar points. Nine of the ten US Department of Defense (DoD) annual reports on Chinese military power released between 2006 and 2015 make some variant of the argument that PLA strategists consider the First Island Chain the boundary of the area in which China seeks to establish air and sea superiority vis-à-vis US forces.<sup>5</sup> Moreover, the US Defense Intelligence Agency's 2014 *Annual Threat Assessment* contends that investments in PLAN capabilities have prioritized anti-air and anti-surface warfare capabilities to achieve "periodic" air and sea superiority inside the First Island Chain.<sup>6</sup> Likewise, Admiral Robert Willard, then-commander of US Pacific Command, asserted in 2011 that Chinese military planners hoped to restrict or exclude foreign military activities in the waters between the coast of the People's Republic of China (PRC) and the First Island Chain.<sup>7</sup>

Another assumption of many foreign analyses is that PRC military thinkers have a relatively consistent definition of the island chains' geographic attributes. For instance, every DoD China military report issued between 2006 and 2012 contained an identical map purporting to show clear PLA demarcations of the First and Second Island Chains.<sup>8</sup> The map from the 2012 edition is shown in Figure 1.

There are several reasons why these analyses correlate PLA views of the island chains concept with counter-intervention issues. First, from a historical perspective, former PLAN commander Admiral Liu Huaqing 刘华清 called for a strategy of "near seas defence" that required China's navy to be able to respond to threats several hundred kilometres from China's shores – an area that may correspond to the First Island Chain.<sup>9</sup> Second, the concept seems to mirror the Soviet naval construct of a layered defence, in which the ability to challenge foreign intervening forces would be based on "lines-in-the-water" located at successive distances from the coast.<sup>10</sup> PLA strategists may have developed a similar

<sup>3</sup> Cliff 2011.

<sup>4</sup> McDevitt 2011, 202.

<sup>5</sup> For example, the 2015 report asserted that the PLA is fielding conventional medium-range ballistic missiles (MRBMs) to threaten foreign intervention forces, such as aircraft carriers, within the First Island Chain (46). The report also argued that the addition of attack submarines and other assets was designed to achieve sea denial within the First Island Chain and to deter third-party intervention in a Taiwan Strait conflict (60). Office of the Secretary of Defense 2015.

<sup>6</sup> Flynn 2014. See also Fuell 2014.

<sup>7</sup> Willard 2011, 10-11.

<sup>8</sup> Purported island chain locations remained consistent throughout the report's 2006–2012 editions.

<sup>9</sup> Cole 2014.

<sup>10</sup> Soviet strategic writings do not discuss "island chains." The closest analogue is emphasis on controlling waters "adjacent to Soviet-controlled shores" to protect Soviet ballistic-missile submarines and repel enemy submarines. Vego 1992.

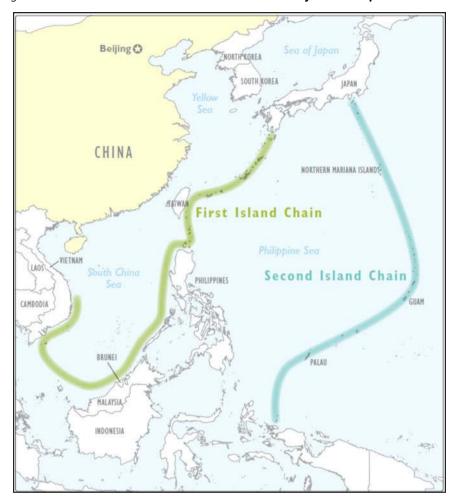


Figure 1: Island Chains in the 2012 DoD China Military Power Report

Source: Office of the Secretary of Defense 2012, 40.

mode of thinking regarding the defence of China's maritime periphery.<sup>11</sup> Third, the ranges of some PLA capabilities associated with a counter-intervention mission, such as medium-range ballistic missiles, suggest that they may be benchmarked against the distances of the successive island chains from China.<sup>12</sup>

Unfortunately, few foreign analyses reference credible PRC sources to substantiate these claims. This is the case with several key US scholarly analyses.<sup>13</sup> Likewise, the 2011 and 2012 US DoD China military reports both asserted

<sup>11</sup> McDevitt 2011, 202.

<sup>12</sup> The PLA is expanding MRBM ranges so as to challenge foreign land targets and ships out to the First Island Chain. Fuell 2014.

<sup>13</sup> See, e.g., Cliff 2011; Cheng 2011; McDevitt 2011.

that PRC "military theorists" utilize the island chains concept but did not explain who these individuals are, where their views appeared, or what authority their opinions carry.<sup>14</sup> While such analyses may offer important broader-picture insights that correlate with some types of observable evidence, they are undersubstantiated. Fundamental questions remain unanswered, most notably: how do Chinese strategic and operational thinkers themselves define the island chains and assess their significance?

We address these questions through a review of authoritative PLA materials. These sources include essays by scholars affiliated with China's premier national defence teaching and research institutes; historical documents, such as Admiral Liu Huaqing's memoirs; articles in the PLAN official newspaper, *Renmin haijun*  $\Lambda \mbox{R} \mbox{\sc premier}$  and doctrinal teaching materials, such as the 2005 and 2013 versions of the *Science of Strategy*. These sources are supplemented, where applicable, with select PRC civilian writings. To be sure, most of these sources reflect only the views of their respective authors or, at most, specific research departments. Taken together, however, they reveal the recent range of thinking about the island chains concept within PRC circles.

#### Historical Antecedents and Current Chinese Interpretations

In attempting to explore fully how island chains might be better understood in strategic and historical context, it is necessary to look back to a time before Chinese strategists such as Admiral Liu Huaqing began to develop related thinking in the 1980s. Chinese writings themselves trace the island chains concept back at least to the early 1950s, when it helped shape US conceptions of how to fortify a post-war East Asian security order.<sup>15</sup> Strategic analysis and operational planning by other major powers in the region employing broadly related terminology dates even earlier. From an American perspective, the Second World War's Pacific War was centred on "island-hopping" campaigns;<sup>16</sup> however, Japan had a very island-relevant element to its approach even earlier, driven in part by acquisition of Germany's Pacific colonies.<sup>17</sup>

<sup>14</sup> Office of the Secretary of Defense 2011, 2012.

<sup>15</sup> Of note, some US strategists continue to think through the significance of the island chains for US strategy in the region. See, e.g., Hammes 2012.

<sup>16</sup> The US Naval War College began relevant war gaming in 1910–1911, in part because students "suspected Japan of harboring aspirations to prevent American mastery of the Pacific by seizing both Guam and Hawaii as a means to choke the American hold on the Philippines." Hattendorf 1984, 78. The resulting War Plan Orange, assembled by Rear Admiral Raymond Rodgers in 1911 and refined repeatedly over 25 years, largely anticipated US Pacific War operations, including a "leapfrog" campaign to seize the Japanese Marshall and Caroline islands. Miller 1991. Naval War College student Lt. Col. Earl Ellis made similarly prescient predictions by 1921 before dying on Japanese Palau in 1923. Friedman 2015. For theatre geometry and island chains descriptions, see Vego 2014, 172–180.

<sup>17</sup> By the early 1900s, imperial Japanese strategists began to discuss a "southward turn" to exploit South-East Asia's economy and natural resources. After Japan acquired Germany's Pacific colonies in 1914, the imperial Japanese navy began to play a significant geostrategic role. Micronesia was prioritized particularly because of concerns that the US would use the Philippines and Guam to attack Japan in the future. See Peattie 1988.

Some Chinese strategists trace the First Island Chain concept directly back to American strategists at the outset of the Cold War. During the Pacific War, the US military itself had to penetrate fortified Japanese-held island chains. The earliest mention of an explicit island chain concept that we can locate is a 1948 Joint Chiefs-of-Staff study demarcating a US defensive perimeter running from the Aleutian Islands south through Japan, Taiwan and the Philippines.<sup>18</sup> General Douglas MacArthur convinced George Kennan that the US should obtain complete control of Okinawa in order to establish a "striking force" positioned along "a U-shaped area embracing the Aleutians, Midway, the former Japanese mandated islands, Clark field in the Philippines, and above all Okinawa."<sup>19</sup> A major Chinese book states:

The term "island chain" originated from the proposal made by Western countries led by the United States after the Second World War by exploiting the strategic geographic locations of some special island groups in the north-west Pacific Ocean waters to suppress and block socialist countries at the time, such as the Soviet Union and China. On 4 January 1954, US State Department Advisor Dulles stated, "The United States' scope of defence in the Pacific region should be Japan, the Kuril Islands, the Japanese archipelago, the Ryukyu Islands, Taiwan Island, the Philippine Islands, and the Indonesian Islands of the first island chain; the second island chain stretches from the islands of Japan, passes through the Ogasawara Islands, the Mariana Islands, the Yap Islands, the Palau Islands, and to Halmahera Island; and the third island chain is composed of islands centring around the Hawaiian Islands. The existence of the first and second island chains makes China's Yellow Sea, East China Sea, and South China Sea typical semi-enclosed sea areas, which become the priority of our penetration."<sup>20</sup>

While Chinese sources emphasize Secretary of State John Foster Dulles far more than Secretary of State Dean Acheson as the island chains concept progenitor, in 1950, in a statement also widely referenced in Chinese, Acheson articulated an American "defense perimeter of the Pacific" that essentially overlapped with the First Island Chain.<sup>21</sup> Today, such thinking finds its voice in attempts to counter Chinese assertiveness in littoral East Asia.<sup>22</sup>

Rather than a peculiarity of Chinese thinking, then, island chains represent an enduring component of regional geostrategic thought. What matters most are the nuances of how Chinese strategists view island chains today.

Many authoritative PLA writings describe island chains in detail; however, there is not a single, consistent definition. Table 1 illustrates this point with four PLA sources: (1) a *China Military Science* article by Senior Colonel Feng Liang 冯梁 and Lieutenant Colonel Duan Tingzhi 段延志 of the PLA Naval Command College;<sup>23</sup> (2) a book by Major General Zhang Shiping 张世平, director of the PLA Academy of Military Sciences' (AMS) war theory and strategic

<sup>18</sup> Cole 2010.

<sup>19</sup> US Department of State 1948, 700-01; Swenson-Wright 2005, 109.

<sup>20</sup> Liang 2011. The translation for this and the following passages are by the authors.

<sup>21</sup> Acheson 1951, 431.

<sup>22</sup> See, e.g., Krepinevich 2015.

<sup>23</sup> Sr. Col. Feng is a professor in the Naval Command College's strategy teaching and research section, and Lt. Col. Duan an associate professor in the political affairs teaching and research section. See Feng and Duan 2007.

Sources	First Island Chain	Second Island Chain
Sr. Col. Feng Liang, Lt. Col. Duan Tingzhi (China Military Science)	Japanese archipelago, Ryukyu Islands, Philippine Islands	Volcano Islands, Northern Mariana Islands
Maj. Gen. Zhang Shiping (China's Sea Power)	Yellow Sea, East China Sea, Ryukyu Islands, South China Sea, Philippine Islands	Kuril Islands, Hokkaido, Nanpo Islands, Northern Mariana Islands, Caroline Islands, New Guinea Islands
Adm. Liu Huaqing (Memoirs)	Japan, South Korea, Taiwan, Philippine Islands, Greater Sunda Islands	Bonin and Mariana Islands, Guam, Palau Islands
PLAN Handbook	Japanese archipelago, Ryukyu Islands, Taiwan, Philippine Islands	Southern islands (including the Ogasawara archipelago, Volcano Islands), Northern Mariana Islands, Guam, Palau Islands, Yap Islands

Table 1: Geographic Reference Points for First and Second Island Chains

research department;<sup>24</sup> (3) the memoirs of Admiral Liu Huaqing, who injected island chains into China's strategic discourse while PLAN commander in the 1980s;<sup>25</sup> and (4) the 2012 edition of the PLAN official *Handbook of PLA Navy Personnel* (hereafter, *PLAN Handbook*).<sup>26</sup>

Each of these sources employs several common geographic reference points. In particular, each lists Japan/the Ryukyu Islands and the Philippine Islands as being in the First Island Chain, and all include the Northern Mariana Islands in the Second Island Chain. Still, there is also considerable variation. For instance, Admiral Liu Huaging and the PLAN Handbook include Taiwan in the First Island Chain; the other two publications do not. Admiral Liu also lists the Greater Sunda Islands in the First Island Chain - which are considerably further south than the southern endpoints listed in the other sources. Descriptions of the Second Island Chain likewise vary. For instance, only Major General Zhang asserts that the Second Island Chain includes the Kuril and New Guinea islands, a relatively lengthy north-south rendering. Moreover, the PLAN Handbook includes a map (shown in Figure 2) depicting the approximate location of the island chains. It offers a more vivid, comprehensive picture: the First Island Chain encompasses Sakhalin Island in the north, the Sea of Japan, the southern tip of the Korean Peninsula, the Ryukyu and Philippine archipelagos, the western edge of Malaysia, and Singapore. The Second Island Chain starts on Japan's Honshu Island, crosses the Northern Marianas Islands, Guam, Palau, Maluku, and Papua, and ends at the northern tip of Australia.

<sup>26</sup> PLAN Headquarters 2012.



Figure 2: Island Chains in PLA Navy Handbook

Source: PLAN Headquarters 2012, 95.

In notable contrast to DoD reports, it depicts both island chains running through northern Japan and enclosing the Sea of Okhotsk. It shows the First Island Chain straddling the Korea Strait, barricading the Sea of Japan.

In contrast to aforementioned DoD interpretations, a review of authoritative PLA sources offers no single, fixed definition of the island chains' geographic

parameters.<sup>27</sup> Additionally, Chinese writings are often preoccupied with the strategic value of key "links" in the island chains, rather than the chains in their entirety. Several such locations stand out, first and foremost Taiwan.<sup>28</sup> An article in the PLA navy's official magazine described Taiwan as the "key point" in the First Island Chain. It explains that the island occupies a strategically important location astride PRC merchant shipping lanes and controls key navigation routes leading from the First to the Second Island Chains.<sup>29</sup> Similarly, a book published by AMS referred to Taiwan as a "strategic puncture point" whose "loss" would threaten China's territorial security and allow "hostile foreign powers" to endanger major PRC transportation links.<sup>30</sup>

Japan and the Philippines also stand out. Retired Major General Xu Guangyu 徐光裕, director of the China Arms Control and Disarmament Association, portrayed Japan as a "key link" in the First Island Chain, noting that Japan and the United States are "close" military allies.<sup>31</sup> Moreover, an article in a Chinese Communist Youth League newspaper termed the Philippines as the First Island Chain's "tail." It designated the Philippines as a vulnerability in the island chain, arguing that its armed forces are "poor and feeble" and that Washington will be unable to expand its own Philippines military presence significantly because of declining US defence budgets.<sup>32</sup>

A third notable "link" is Guam. Major General Xu has written that the US military is in the process of strengthening its force posture along the Second Island Chain, with Guam "at its core." The island's key strategic advantages, Xu added, include its size, proximity to both Hawaii and continental Asia, and US territory status.<sup>33</sup> Similarly, an AMS-published book noted that Guam is located only about 2,500 km from Japan, the Taiwan Strait, and the Philippines, enhancing its value as a key US Second Island Chain location.<sup>34</sup> Moreover, a strategic assessment produced by the China Institutes for Contemporary International Relations (CICIR) portrayed Guam as the "heart" of the Second Island Chain as it hosts several major US military installations.<sup>35</sup>

Additionally, some PLA sources focus more on key maritime passageways between the island chains than on land features. Particularly notable among these sources is a book by Senior Colonel Liang Fang 梁芳, a professor at China's National Defence University (NDU). According to Liang, there are

- 31 Run 2014.
- 32 Qingnian cankao 2012.
- 33 Run 2014.
- 34 Ma 2011.

<sup>27</sup> Many official PRC sources do not appear to reference island chains at all. The authors have been unable to find the term "island chain" in the following official sources: PRC Defence White Papers, PRC Annual Government Work Reports (1993–2013) or PRC Ministry of National Defence Press Conferences.

<sup>28</sup> For a detailed analysis of PRC views of Taiwan's geostrategic value, see Wachman 2007; Nathan 1996.

<sup>29</sup> Bai 2007, 17-20.

<sup>30</sup> Ma 2011.

<sup>35</sup> Zhongguo guoji guanxi yanjiuyuan 2005; Bai 2007.

Name	Geographic Location	Territorial Waters Concerned	Width (NM)	Depth (metres)
Korea Strait	Between Korea and Japan	Yellow Sea, Sea of Japan	180	50-150
Osumi Strait	Between Japan's Honshu and Ryukyu islands	East China Sea, Pacific Ocean	15	80–200
Miyako Strait	Between Okinawa and Miyako islands	East China Sea, Pacific Ocean	145	500-1,500
Taiwan Strait	Between Fujian province and Taiwan	East China Sea, South China Sea	130-230	40–1,680
Bashi Channel and Others	Between Taiwan and the Philippines	South China Sea, Pacific Ocean	210	1,000–3,000
Sunda Strait	Between Sumatra and Java	Java Sea, Indian Ocean	26–110	70–1,759
Makassar Strait	Between Kalimantan and Sulawesi	Sulawesi Sea, Java Sea	120–398	1,000
Strait of Malacca	Between Malay Peninsula and Sumatra	South China Sea, Indian Ocean	37–370	25–113
Source:				

Table 2: Key Straits through the First Island Chain

Liang 2011.

over 140 straits and waterways within the First Island Chain, but only 20 of these are frequently used by Chinese vessels to access waters beyond the chain. Liang describes some of these key passageways in detail. Table 2 is drawn from Liang's identification of key straits within the First Island Chain.<sup>36</sup>

Additionally, some sources offer more specific expansive definitions of the island chains. A Chinese state media source describes the First Island Chain as having "four key nodes: the 'head of the chain' is South Korea, the 'tail of the chain' is the Philippines, the 'lock on the chain' is Taiwan, and the 'centre of gravity' of the chain is Japan."<sup>37</sup> A *Jiefangjun bao* 解放报 article states that Diego Garcia anchors the First Island Chain.<sup>38</sup> A defence industry press source defines the island chains expansively, with the First Island Chain running south from Alaska and the Aleutian Islands, and the Second Island Chain south to Australia and New Zealand.<sup>39</sup> A PLA air force (PLAAF) publication offers similar demarcations.<sup>40</sup>

Finally, while most PLA sources typically mention only two island chains,<sup>41</sup> some government-affiliated and unofficial Chinese publications also refer to a

- 38 Wang, Weixing, and Teng. 2000.
- 39 Dan and Ju 2005.

<sup>36</sup> Liang 2011.

<sup>37</sup> Qingnian cankao 2012.

<sup>40</sup> Hui 2009.

<sup>41</sup> A PLA Naval Command Academy author defines three island chains, but traces this formulation to the 1950s-1960s: "the Korean Peninsula-Taiwan-Indochina (near seas [*jin hai*]), Japan-the Ryukyus-Philippines (intermediate seas [*zhong hai*]), and the Aleutians-Guam-Australia (distant seas [*yuan hai*])." Xu, Xikang 2011.

Third Island Chain (*disan daolian* 第三岛链), which is centred on America's Hawaiian bases and viewed as a "strategic rear area" for the US military.<sup>42</sup> The most specific definition includes the Aleutian Islands, the Hawaiian Islands, and the Line Islands.<sup>43</sup>

In sum, while Chinese strategic writings often reference two or three island chains ringing China's maritime periphery, there does not appear to be a single, fixed definition of where those chains end or what their key attributes are. Rather, the concept seems to be a relatively flexible one – sometimes defined based on alternative geographic referents, sometimes left undefined. In addition, some sources are preoccupied not so much with the island chains in their entirety, but rather with specific links on, or key passageways through, them. The next sections further explore the variability in PLA writings and examine the operational and strategic substance that Chinese military thinkers attribute to the island chains.

# Chinese Thinking on the Strategic and Operational Significance of the Island Chains

In moving beyond uncritical invocation of "counter-intervention," it is necessary to consider comprehensively how Chinese experts themselves assess the island chains' specific salience. Discussions occur at all levels of warfare: strategic, operational and tactical. The three levels are at least implicitly linked: discussions at the operational/tactical levels sometimes reference the broader strategic problem of island chains hemming in PLA/PLAN forces, and vice versa. It is indeed a more multifaceted, complex picture than is typically portrayed in US sources. Components fall fairly neatly into three interrelated but conceptually distinct categories: barriers, springboards and benchmarks.

#### Barriers

This concept views island chains as foreign fortifications designed to "contain" Chinese force projection.<sup>44</sup> For instance, one article in the PLAN official newspaper describes the First and Second Island Chains as "ropes' for tying up the huge dragon of China."<sup>45</sup> PLAN Senior Captain Xu Qi 徐起 emphasizes that China's "passage in and out of the [open] ocean is obstructed by two island chains. [China's] maritime geostrategic posture is [thus] in a semi-enclosed condition," since "the United States has deployed strong forces in the Western Pacific and has formed a system of military bases on the First and Second Island Chains

43 Zhang, Shiping 2009.

44 Zuo 2013.

45 Ding 2011.

<sup>42</sup> CICIR's annual strategic assessment mentions "the three main island chains of the US Asian Pacific defence line." Zhongguo guoji guanxi yanjiuyuan 2005. For a detailed graphic from the PRC naval studies community that shows all three island chains, see Zu 2006; *Guoji zhanwang* 2005.

[with] a strategic posture [involving] Japan and South Korea as the northern anchors, Australia and the Philippines as the southern anchors, [and] with Guam positioned as the forward base."<sup>46</sup> A 2007 article in the PLAN magazine, *Dangdai haijun* 当代海军 (*Modern Navy*), states flatly, "there exists in these island chains the power to contain China and the Chinese navy, blocking China and the Chinese navy's growth pace."<sup>47</sup> Naval Command College professors Feng Liang and Duan Tingzhi add, "the partially sealed-off nature of China's maritime region has clearly brought about negative effects in China's maritime security ... the many nations of the periphery island chains have created a geopolitical contradiction."<sup>48</sup>

In addition, the authors of the 2005 edition of the *Science of Strategy*, a key teaching volume published by the PLA AMS, likewise contend that, despite its 18,000-kilometre coastline, China is currently constrained by the world's longest island chain, which centres on strategically, politically and economically vital Taiwan: "If Taiwan should be alienated from the mainland ... a large area of water territory and rich reserves of ocean resources will fall into the hands of others ... China will forever be locked to the west side of the first chain of islands in the West Pacific."<sup>49</sup> These are not simply navy-affiliated views: a leading PLAAF publication similarly asserts, "the biggest obstacle to the expansion of our national interests comes from the First and Second Island Chains set up by the United States."<sup>50</sup>

Multiple sources consider the island chains a strategic problem, that is, they are strategic lines that are being reinforced by the US and its allies/partners and which China must overcome. An article in CICIR's journal contends that the navy "must switch from coastal water defence to ocean defence; its capability cannot just be limited to the First Island Chain but [must] break through beyond it."<sup>51</sup> A Chinese state media article suggests places to target: "the 'first island chain' ... has weak points ... this 'lock' that is the Taiwan island is no longer solid with the cross-Strait economic fusion and the increasing gap in military power. At the same time, as the 'tail of the chain,' the Philippines' military power is poor and feeble, and even if the United States is supporting them, they will not see any notable improvement."<sup>52</sup>

General Zhu Wenquan 朱文泉, Nanjing military region commander from 2002 to 2007, offers a multi-part formula for "breaking" the first "island chain blockade":

if we cannot pass it, we can always fly over it. Some countries have deployed underwater submarines and monitoring systems on the islands, but we are fully able to destroy them with

- 48 Feng and Duan 2007, 22–29.
- 49 Peng and Yao 2005, 443.
- 50 Hui 2009.
- 51 Li 2007.
- 52 Qingnian cankao 2012.

<sup>46</sup> Xu, Qi 2004.

<sup>47</sup> Bai 2007, 17–20.

firepower ... we should take it seriously in terms of tactics because, after all, an arch made of connected islands would restrict the operations of Chinese military vessels and warplanes in the Pacific Ocean, and the entrance and exit of our surface vessels and submarines would be known ... If we have a powerful navy, air force and space troop ... the first island chain will be like a straw rope that breaks at the first touch.<sup>53</sup>

The 2007 *Modern Navy* article likewise offers specific suggestions on how to breach constraints along the First and Second Island Chains: "If China resolves the Taiwan problem, it would also signify that China's ability to break through the Second Island Chain has had a significant transformation ... the PLA's military facilities on Taiwan would also be able to deter Guam ... the US will have no choice but to consider the degree of force amassment on Guam. If the US reduces its strategic position on Guam, then the Second Island Chain's containment force will also be reduced."<sup>54</sup> While this PLAN article sees submarines as central to "breaking through the island chain," a PLAAF publication advocates "build[ing] strong offensive air power, bring[ing] the First and Second Island Chains into the range of our striking force, force[ing] the US military to retract its defence line, and effectively eradicate[ing] the containment imposed by the First and Second Island Chains."<sup>55</sup>

In contrast to impressions that the US military is strengthening its military posture along the First Island Chain, a more recent Chinese source takes an alternative view. Specifically, Major General Xu Guangyu, interviewed on China Central Television, claims China's military build-up, particularly of conventional ballistic missiles such as the DF-15, has already caused the US to reduce its posture on the First Island Chain, even as it attempts to fortify the Second Island Chain.<sup>56</sup>

#### Springboards

This concept views island chains as facilitators of foreign force projection against China. The US island-hopping campaign against Japan in the Second World War and subsequent anti-communist basing on the First Island Chain provides a powerful antecedent for such thinking. A major Chinese book quotes General Douglas MacArthur as stating, "We control [the Pacific Ocean] to the shores of Asia by a chain of islands extending in an arc from the Aleutians to the Marianas held by us and our free allies. From this island chain we can dominate with sea and air power every Asiatic port from Vladivostok to Singapore and prevent any hostile movement into the Pacific."<sup>57</sup>

56 Run 2014.

<sup>53 &</sup>quot;General Zhu Wenquan: how to win island war!" China Military Online, 10 August 2015, http://english. chinamil.com.cn/news-channels/china-military-news/2015-08/10/content\_6623644.htm. Accessed 22 December 2015.

<sup>54</sup> Bai 2007, 17-20.

<sup>55</sup> Hui 2009.

<sup>57</sup> Ma 2011. This is clearly a reference to MacArthur's 1951 farewell address to Congress, in which he described Washington's Pacific posture as being quite literally based on the central outward-projecting angle of a bastion-battle line. MacArthur 1951.

Elsewhere, MacArthur described Taiwan as "an unsinkable aircraft carrier and submarine tender."<sup>58</sup> Admiral Earnest King similarly believed that controlling the island "would let the US Navy 'put the cork in the bottle' of the South China Sea during World War II, severing Japanese SLOCs and thus Japan's supply of oil and raw materials."<sup>59</sup>

Chinese sources refer to Guam as the "Second Island Chain's nucleus."<sup>60</sup> In 2004, NDU professor Rear Admiral Zhang Zhaozhong 张召忠 declared that the United States was amassing troops and military assets on Guam as part of a new focus on strengthening its "forward reserve" on the Second Island Chain.<sup>61</sup> Zhang characterized Guam as a "springboard" (*tiaoban* 跳板) from which America "can immediately send out aircraft or dispatch submarines, in order to put power into the war zone," which he apparently envisioned as centring on the Taiwan Strait.<sup>62</sup>

#### Benchmarks

This concept views island chains as milestones for China's own force projection to demarcate China's progress in projecting power further from its shores. Although primarily evident in discussions of PLAN activities, the island chains have also appeared as benchmarks in writings regarding China's air forces as well.

Regarding the Chinese navy, island chains have regularly appeared in PLA writings as benchmarks for China's increasingly expansive naval operations.<sup>63</sup> This is exemplified in several reports in *Renmin haijun* and *Jiefangjun bao*. For instance, one *Renmin haijun* article recalled that, in 1976, the PLA navy sent vessels beyond the First Island Chain into the Pacific for the first time, with submarines dispatched on a 30-day training mission. "Subsequently, the submarine corps organized a series of long-voyage training missions going beyond the Second Island Chain, setting new records for the long-distance operation of the navy's submarine units."<sup>64</sup> Similarly, a *Jiefangjun bao* report stated that, in May 1980, an 18-ship task group sailed to the previously surveyed Fiji Islands area to retrieve the instrument package from China's first successful intercontinental ballistic missile test on 18 May. This was the first major instance of Chinese maritime power projection since the voyages of Zheng He 郑和, and the first ever major deployment beyond the First Island Chain into the Western Pacific.<sup>65</sup>

58 Whitney 1956, 378-79.

<sup>59</sup> Holmes 2011, 411.

<sup>60</sup> See, e.g., "Haishang zhulu" (Maritime contention for state power), *Zhongguo chuanbo bao*, 27 August 2004, 11.

<sup>61</sup> Wang, Jing 2004. For a similar analysis by Zhao concerning Guam's strategic location, see: "Haixia liang'an" (Across the Strait), CCTV, 8 April 2005.

<sup>62</sup> See also Yu and Qi 2005; Wu and Xie 2004; "US military commitment to Asia to be smaller but deadlier after realignment," *Xinhua*, 18 August 2004.

<sup>63</sup> For an analysis of the progress of PLAN training in the "distant seas," see Sharman 2015.

<sup>64 &</sup>quot;Yanbing buzhen zhimian xinxihua zhanchang" (Training for joint operations in an informatized battlefield), *Renmin haijun*, 7 April 2009.

<sup>65</sup> Jiefangjun bao, 12 June 1980, 1, cited in Muller 1983, 164.

Such themes are even more apparent in PLA media reports on the scope and nature of PLAN training activities in the 2000s.<sup>66</sup> For instance, a 2004 *Jiefangjun bao* article assessed that a destroyer flotilla could engage in operations up to the First Island Chain, while conventional submarines could engage in operations up to the Second Island Chain.<sup>67</sup> Similarly, in mid-June 2006, *Renmin haijun* reported that North Sea Fleet "leaders personally commanded a formation composed of new-model destroyers, frigates, comprehensive support ships, and antisubmarine helicopters to conduct distant navigation training by sailing beyond the island chain for 15 days and nights running." The 12 training tasks they conducted "summed up the ways of responding to the actual threats facing the fleet; targeted research at manifold difficult issues in penetrating the island chain; and further enhanced long-range command and control capability, distant sea system of systems offensive and defensive capabilities, and sustained operations capability of naval units at all levels."<sup>68</sup>

Similar themes were evident in various PLA doctrinal and strategic writings. For instance, in his memoirs, Liu Huaging wrote that PLAN operations would eventually extend to the Second Island Chain.<sup>69</sup> In addition, a 2001 textbook written by Chinese NDU scholars states that, "Near-sea combat stresses that the front lines of the First Island Chain is a primary battlefield for our near-sea waters which should be seized and held to our advantage."70 Similarly, Senior Captain Xu Qi contends, "According to the requirements of national interests and the development of naval battle operations capability, the scope of naval strategic defence should progressively expand. In the direction of the South China Sea, the sea area extends 1,600 nautical miles from mainland China, but the scope of naval strategic defence is still within the First Island Chain."<sup>71</sup> The author adds that: "Future at-sea informationalized warfare has characteristics of noncontact and nonlinearity [and] in particular uses advanced informationalized weapons, space weapons, and new-concept weapons, etc. [It] can conduct multidimensional precision attacks in the sea area beyond the First Island Chain [and] threaten important political, economic, and military targets within strategic depth."72

The use of the island chains as a benchmark for PLAN activities is also illustrated in a passage from a book published by AMS in 2011:

The open sea operation force is to be mainly deployed in sea waters outside the First Island Chain, where it will use aircraft carrier group(s) and nuclear attack submarines as mainstay

<sup>66</sup> Du 2010; Xu, Changyin 2010.

<sup>67</sup> Lou 2004.

<sup>68</sup> Ding 2011.

<sup>69</sup> Liu 2004, 437; interview with RADM Zheng Ming, former director, PLAN equipment department, as quoted in Chen, Liangfei, and Qianyi Zhang. 2011. "Zhongguo haijun jinhai fangyu fanwei bu xianyu jinhai" (The Chinese navy's near-sea defence range is not limited to near seas), *Dongfang zaobao*, 1 August.

<sup>70</sup> Bi 2002, 230.

<sup>71</sup> Xu, Qi 2004.

<sup>72</sup> Ibid.

forces and have Second Artillery Force mid- and long-range conventional missile [units] and air force strategic strike units assisting. The near-shore operation force is to be mainly deployed in waters inside the First Island Chain, where it will use large and mid-sized surface vessel formations as the mainstay force and have conventionally powered submarines, PLAN and PLAAF air forces, and army long-range artillery units assisting ... China's air force should also operate in the broad airspace extending from the Caspian Sea in the east to the Second Island Chain in the west, and from shallow and near depth beyond China's border to the South Africa–Australia line, working in coordination with the army and navy to protect China's interests.<sup>73</sup>

Some PLA writings also discuss the island chains as benchmarks for air force operations far from China's coasts. This is best illustrated in several passages from the 2013 edition of the *Science of Strategy*. In a chapter on air force strategy, the authors contend that China's air force should utilize the First Island Chain as a zone of "limited control and security cooperation," while the Second Island Chain would form a "zone of long-range monitoring and flexible response."<sup>74</sup> A chapter on air force development similarly asserts that the air force should establish an "effective operational radius" of 3,000 km, reaching the Second Island Chain.<sup>75</sup> The same chapter described the area between the First and Second Island Chains as a "long-range monitoring and deterrence zone," in which Chinese air forces would closely survey "military bases in the Western Pacific," and maintain a "necessary deterrence status."<sup>76</sup>

#### **Conclusion and Policy Implications**

The island chains concept looms large in China's maritime strategic landscape. There is both an ideational and physical basis for this conception. *Remnin haijun* reporters offer a vivid ideational illustration of the latter dimension. In documenting the emphasis that PLAN officers placed on penetrating the First Island Chain on a ship to which they were seconded, they conclude: "There is no 'lock' on the island chain! What held us back from sea voyages was not an island chain but an 'arresting cable' that was just in our minds!"<sup>77</sup>

Such a preoccupation is not merely psychological, however. While some Western observers may still dismiss the Chinese "drawing of lines in the water" as Soviet-style anachronisms or backward continentalist thinking, there is indeed a bathymetric, terrestrial and force-posture basis for the island chains concept. Chinese strategists trace concept and operationalization alike to the post-Second World War strategy and posturing of US and allied forces on the First Island Chain that had the direct intent of containing Communist China and its Soviet ally and preventing them from gaining influence over America's maritime allies. Today, the First and Second Island Chains are only more firmly fortified, posing a formidable challenge from Beijing's perspective as it goes

- 74 Zhongguo junshi kexue yuan 2013, 42.
- 75 Ibid., 242.
- 76 Ibid.
- 77 Zhang, Qingbao, and Lin 2013.

<sup>73</sup> Ma 2011.

increasingly to sea to pursue outstanding island and maritime claims and extend reach and influence further beyond.

The enshrinement of island chains in some of the most demonstratively authoritative PLA writings suggests that they are taken seriously by China's military. Chinese writers have adapted foreign conceptions of island chains to offer their own, innovative interpretations. The island chains concept thus enjoys enduring relevance and merits concerted analytical attention.

Most interesting, then, are the precise nuances of Chinese strategic and operational thinking on the matter. The lack of comprehensive official statements renders conclusions tentative, and authoritative sources themselves are varied. Several instructive patterns nevertheless emerge from systematic review of authoritative PLA sources, which often provide vital distinctions.

The first pattern concerns Chinese interpretations of the physical parameters of the island chains themselves. As documented previously, there is disagreement among some PLA sources as to the island chains' longitudinal extent. While there is some variance concerning their extremities, authoritative Chinese sources (including, most importantly, PLAN sources) concur that the First Island Chain largely encloses the near seas (Yellow, East, and South China seas – including at least the eastern and southern reaches of the last), and that the Second Island Chain centres on the major US bases in Guam and contains Japan's Ogasawara Islands. Less certain is the place a notional Third Island Chain, centred on US bases in Hawaii, enjoys in official thinking. Authoritative PLAN writings do not mention it, but some other PLA and state-affiliated sources do. Certainly, Chinese military sources recognize the role Hawaii plays, but what else might be logically connected to that remains unclear.

Most significantly, the greater northern and western extent of the island chains depicted in Chinese sources such as the *PLAN Handbook* (as opposed to the DoD's 2006–2012 reports) has potential significance for future PLAN efforts to outflank Japan or access Arctic sea lanes, while greater southern extent could have significance for PLAN patrols of sea lanes to support alternatives to a Malacca Strait "chokepoint." The DoD's interpretation of the island chains may thus be circumscribed by a counter-intervention focus that ignores the full range of views within the PLAN. In attempting to understand Chinese strategic perspectives, it is important to avoid such potential insularity.

The second pattern concerns the island chains' specific military significance. While Chinese discussions are diverse, multifaceted and occur at strategic, operational and tactical levels, they may be divided into three interrelated but conceptually distinct categories: barriers, springboards and benchmarks. Based on China's historical experience, it is hardly surprising that Chinese strategists have long viewed the island chains as barriers that must be penetrated – if necessary, with advanced platforms such as submarines. This is related to a second conception, namely of the island chains as potential springboards for aggression against China if Beijing allows their uncontested development by opponents. Finally, and most interesting for studying the PLAN and PLAAF's progress today, is the widely held notion that the island chains serve as benchmarks for China's maritime and aviation development. Such an approach was first articulated by Liu Huaqing, who described the First and Second Island Chains as important milestones for specific types of current and future naval deployments. It finds constantly evolving currency in its frequent invocation in doctrinal publications and descriptions of recent PLAN exercises. Such drills entail penetrating the island chains with increasingly diverse combinations of progressively advanced vessels to engage in increasingly sophisticated exercises beyond.

Deeper understanding of the airpower dimension hinges on understanding the PLAN/PLAAF overwater division of labour. China's November 2013 rollout of an East China Sea air defence identification zone (ADIZ) potentially gives the PLAAF a major role to play in this realm as well. Establishing a South China Sea ADIZ could further bolster the correlation of Chinese military aviation with island chain parameters. Such an ADIZ would depend in part on runways and radars on features that China has been augmenting and fortifying, which are themselves important new (manufactured) springboards for projecting military power. This represents a historically rare case of China altering inconvenient geography in its favour (as earlier with the Great Wall and Grand Canal).

Recently, Chinese analysts have displayed unprecedented optimism that their nation's military can reduce the island chains' significance as barriers by mounting a risk to the forces based within the chains with the world's largest arsenal of short- and medium-range ballistic and cruise missiles. While US, allied and friendly bases on the First Island Chain are widely recognized to be targeted with increasing capability and capacity, strategic effects may deepen further as China demonstrates its increasing ability to threaten ships operating from those bases, and increasing options for targeting their counterparts on the Second Island Chain. The recently deployed DF-26C conventional intermediate-range ballistic missile, for instance, is credited with a 3,500-km-plus range, which is sufficient to strike Guam, giving Chinese planners new options.

This returns us to the "counter-intervention" concept with which we began this analysis. On the one hand, this is not technically a Chinese term. As a specific word, it does not appear substantially in China's available doctrinal or otherwise demonstrably authoritative writings.<sup>78</sup> Like Chinese military thought overall, Chinese thinking concerning island chains is clearly far broader and more complex than this simple foreign encapsulation. Nevertheless, the foregoing analysis demonstrates that the "counter-intervention" interpretation *does* indeed describe important implications for US and allied forces of *a significant component* of Chinese military operational development and potential activity.

Even as China remains a continental power in important respects, it is determined to become, at least partly, a mature maritime power as well. As it develops further militarily in sea and air, it is determined to reduce its susceptibility to, and demonstrate ability to actively counter, previously constrictive foreign basing and intervention capabilities in its home region. More broadly and gradually, it seeks to achieve new milestones in power projection to safeguard expanding interests. Understanding how Beijing intends to pursue these major goals will hinge in part on understanding evolving Chinese conceptions of the island chains, an important, enduring, physical and ideational feature of the Asia-Pacific maritime landscape.

**摘要:**美国政府报告把中国设想的西太平洋"岛链"概念描述为中国军队为 在有关领土争端的 "反干涉"作战中试图打败美国和盟国部队而设立的狭 窄的界线。寥寥无几的相关研究对这个过于短视的看法也没有提出不同意 见。然而,进一步的分析却发现此概念有迥然不同的含义。这些含义能大 大增强我们对中国为发展成为一个海洋大国所做出的努力的理解。这个概 念是在中国有一个现代的海军或海军战略家之前由其他有影响力的大国为 争夺亚太地区的影响力而发展起来的。如今,中国对此概念的权威解释显 示出其灵活性,微妙性和多面性。这些解释特征恰恰能与北京在管理其海 上崛起过程中许多有时是相互矛盾的因素相适应。这些因素包括由于不断 增大距离和活动强度所导致的海上通道安全日益增长的重要性。

关键词:中国;岛链;战略;军事;海事;海军

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