Naval War College Review

Volume 70
Number 2 *Spring*

Article 5

2017

Blunt Defenders of Sovereignty - The Rise of Coast Guards in East and Southeast Asia

Lyle J. Morris

BLUNT DEFENDERS OF SOVEREIGNTY

The Rise of Coast Guards in East and Southeast Asia

Lyle J. Morris

What is the role of coast guards in the realm of territorial disputes? Until ten years ago or so, few policy makers in East and Southeast Asia had to grapple with this question, because regional navies, not coast guards, were the central actors asserting sovereignty in disputed areas.[1] The decision by states, most notably China, to build up and employ coast guards as first-line defenders during territorial disputes has resulted in the following recent trends in the region:

- Rather than employing coast guards as tools of regional peace, countries are using them, as opposed to naval forces, as aggressive instruments of state power to assert territorial claims—a new and destabilizing phenomenon in maritime territorial disputes.[2]
- Coast guards in the region are acting as "blunt defenders of sovereignty," undertaking actions such as ramming other states' coast guard and fishing vessels, rather than acting as traditional instruments of law enforcement against strictly civilian actors.
- The use of coast guards—nominally under civilian control—as instruments to protect claimed territory while conducting peacetime patrols of disputed maritime territory has blurred the line between the platforms and missions traditionally associated with "law enforcement" and those associated with "national defense."[3]

Lyle J. Morris is a policy analyst at the RAND Corporation, where he focuses on security developments in East and Southeast Asia. He has published recently on maritime security in the Asia-Pacific, U.S. maritime security capacity building in Southeast Asia, and Chinese military modernization. Prior to joining RAND, Morris was the 2010–11 Next Generation Fellow at the National Bureau of Asian Research and a research intern with the Freeman Chair in China Studies at the Center for Strategic and International Studies. Morris received his master's degree in international affairs from the Columbia University School of International and Public Affairs and a bachelor's degree in international business from Western Washington University.

Naval War College Review, Spring 2017, Vol. 70, No. 2

Naval War College Review, Vol. 70 [2017], No. 2, Art. 5

- The employment by states of civilian assets alongside coast guard and naval vessels as components of state power has blurred further the boundaries among civilian, government, and military roles in conflict and injected destabilizing dynamics into maritime encounters.
- The protection of sovereignty and territorial integrity has become an increasingly important mission of coast guards in the region.

At the center of regional coast guard growth is China, which recently consolidated four of its five agencies in charge of maritime law enforcement (MLE) under one civilian bureaucracy called the State Oceanic Administration (SOA), further unifying Chinese forces and doctrine.[4] With this reform and China's recent ambitious fleet expansion, the country now boasts the largest coast guard in the world. China's rapid enlargement of forces and its increasingly aggressive tactics have reshaped perceptions fundamentally among regional states.[5] Increasingly, such states are turning to coast guards, not navies, to patrol formerly unregulated maritime zones, demonstrate presence, and consolidate administrative control over disputed territories in the East and South China Seas. These factors—China's expansion of its coast guard and increasing administrative control over disputed territory, as well as a desire to combat nontraditional security challenges such as illegal, unreported, and unregulated fishing near the country's coastline—appear to be the central motivation prompting other states such as Japan, Vietnam, and the Philippines to undertake corresponding investments in coast guard fleets.[6]

Against a background of growing Chinese coast guard capabilities, this article seeks to illuminate the complex security environment in East and Southeast Asia, as seen through the prism of regional coast guards, and to evaluate the implications for regional security and stability. On the basis of interviews with coast guard officials, naval officials, and academics, as well as open-source materials such as media and government reports, the article provides an overview of the key enablers of coast guard expansion in the region; examines existing rulings in international law on the use of force by coast guards in disputed waters; examines the history and organization of the coast guard fleets of China, Japan, Vietnam, and the Philippines; offers short "baptism-by-fire" case studies that illuminate key confrontations that Japan, Vietnam, and the Philippines have had with China; and concludes by examining the ramifications of coast guard expansion on regional security dynamics.

The four countries examined for this report were chosen for several reasons. First, they remain the most active parties in the ongoing territorial disputes in the East and South China Seas. Second, their coast guards increasingly are being tasked as the first line of defense in asserting sovereignty claims. Finally, the coast

guards of these four countries are undergoing various stages of development and reform, revealing the differing priorities the countries have assigned to the varied roles of coast guards in maritime law enforcement.

IMPETUS BEHIND THE GROWTH OF COAST GUARDS IN EAST AND SOUTHEAST ASIA

The UN Convention on the Law of the Sea (UNCLOS), adopted in 1982, for the first time granted states the authority to regulate jurisdictional zones beyond their twelve-nautical-mile (nm) territorial seas, in particular in what is known as an exclusive economic zone (EEZ). Within 200 nm of their coastlines, states have exclusive rights to exploit natural resources and fisheries, among other living and nonliving resources.[7] The notion that coastal states had preferential rights and interests and could manage the resources within a greatly enlarged body of water created a new maritime consciousness for policy makers charged with the protection and preservation of their coastal environment.

UNCLOS, however, remains silent on which maritime platform should be employed for maritime enforcement within states' EEZs. For most countries in East and Southeast Asia, this task primarily fell to navies, for two reasons: most states lacked a dedicated coast guard fleet; and navies had readily available, large-capacity assets with which states could carry out MLE missions. Yet navies generally are ill suited for such duties. As figure 1 illustrates, navy platforms and personnel are tailored for military campaigns and are equipped for high-kinetic environments—not always appropriate for MLE and fisheries patrols.

Deploying a warship to arrest fishermen, for example, may convey messages of intimidation and lethality unnecessarily.[8] Even taking into account that some navies in Southeast Asia have the domestic legal authority to carry out policing functions at sea, the potential remains high for naval action to lead to reaction from another country's naval vessels, resulting in escalation, especially in scenarios involving use of force by naval vessels against civilian assets. In contrast, the platforms, personnel, use-of-force doctrine, and bases in domestic and international law of coast guards are tailored for the wide array of MLE duties that modern maritime states require. Nonetheless, until recently the notion of creating a constabulary MLE fleet to manage, regulate, and enforce domestic and international maritime laws and conventions remained a relatively new concept in Asian maritime affairs.[9]

Recent developments, however, have spurred countries in the region to create, consolidate, or enhance their coast guard forces.[10] For one, decades of overfishing have depleted fish stocks, a vital industry for many maritime economies. Moreover, countries in the region increasingly see the advantages of a dedicated

FIGURE 1
A COMPARISON OF CHARACTERISTICS OF COAST GUARDS AND NAVIES

	Coast Guard	Navy
Platform	• Thinner hull more vulnerable to high-kinetic attacks • Lightly armed with deck-mounted machine guns • Less expensive to operate and maintain	• Thicker hull constructed to withstand high-kinetic attacks • Full array of armaments, radar, and communications systems • More expensive to operate and maintain
Personnel	• Customs, border patrol, fisheries, and counternarcotics officers • Trained to enforce maritime laws and regulations	• Weapons officers, navigators, and commanders • Trained to prosecute war
Use-of-force vs. rules-of-engagement doctrine	• Use-of-force doctrine; graduated actions designed to exert minimum force to compel compliance of civilian actors	• Rules-of-engagement doctrine; lethal, highly kinetic actions against combatants
Basis in law	• Enforce domestic and international maritime laws and conventions	• Defend national sovereignty and citizens from external attack or aggression

Source: Author analysis based in part on Daniel Patrick O'Connell, *The Law of the Sea,* vol. 2 (Oxford, U.K.: Oxford Univ. Press, 1984), pp. 1062–93, and Sam Bateman, "Regional Navies and Coastguards: Striking a Balance between 'Lawships' and Warships," in *Naval Modernisation in South-East Asia: Nature, Causes and Consequences,* ed. Geoffrey Till and Jane Chan (London: Routledge, 2014), pp. 246–49.

civilian maritime police authority to carry out nontraditional maritime missions such as search and rescue, port security, environmental protection, and counterpiracy.

But a third factor appears to be prompting states to build up their coast guards: as a means to counter China's unprecedented coast guard expansion, which China

FIGURE 2
TOTAL COAST GUARD TONNAGE INCREASES OF SELECT COUNTRIES IN EAST AND SOUTHEAST ASIA, 2010–16

Country	Total Tonnage (2010)	Estimated Added Tonnage (2010–16)	Total Tonnage (2016)	Total Percentage Increase
China	110,000	80,000	190,000	73% increase
Japan	70,500	35,000	105,500	50% increase
Vietnam	20,500	15,000	35,500	73% increase
Philippines	10,000	10,000	20,000	100% increase

Source: Author estimates based on open-source media reporting and on U.S. Navy, *The PLA Navy*, p. 45. Estimated added tonnage column takes into account vessels that are either under construction or anticipated to be delivered by the end of 2016. China's coast guard calculations do not include vessels from the MSA, which is not considered part of China's reformed coast guard fleet and typically does not patrol disputed areas in the East and South China Seas. Vietnam's coast guard calculations do not include vessels from the VFSF, VINAMARINE, or the VBG. The Philippine Coast Guard calculations do not include vessels from the PNP-MG, Customs, or the BFAR. Overall estimates of total tonnage are rough approximations of the total capacity and are meant for illustrative purposes only.

has been using to assert more aggressively what it sees as its legitimate rights in the East and South China Seas. As depicted in figure 2, China has increased by a large margin its total coast guard capacity over the last five years compared with others in the region, and now has the largest coast guard in the world in terms of total tonnage, at an estimated 190,000 tons.

China's massive investment in its coast guard since 2010 has altered fundamentally the security perceptions in the region. By employing what China regards as nonmilitary assets to demonstrate administrative control over disputed territory in the East and South China Seas, China has attempted to "civilianize" its expansion of sovereignty protection to strengthen its legal claims over other claimants. Other countries in the region, as a result, feel compelled to turn to coast guards, as opposed to navies, to counterbalance China and assert administrative control, so they have sought to bolster their coast guard fleets.

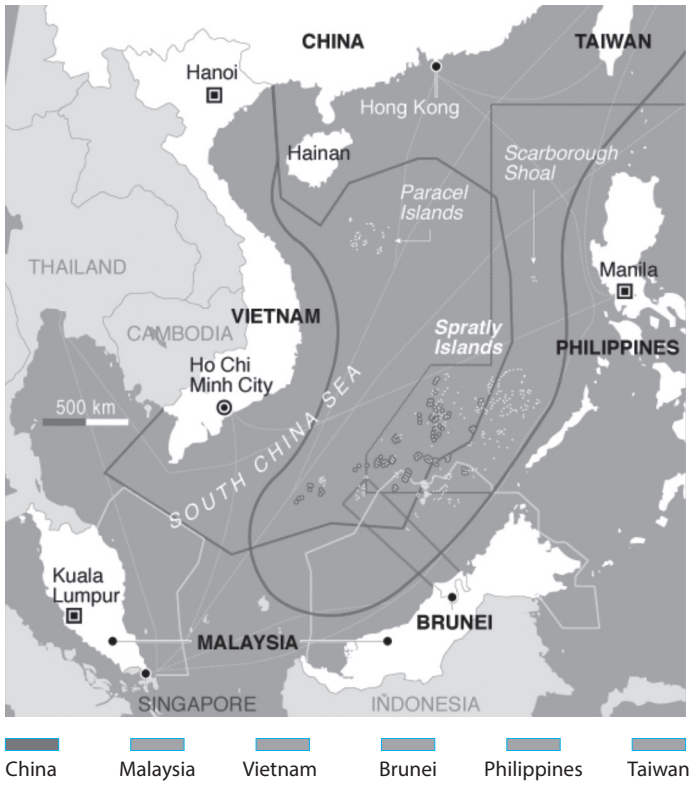
However, most countries in the region other than Japan lack the funds to match China's coast guard fleet adequately, and some perceive navies as offering a more potent deterrent against foreign infringements of their EEZs.[11] Whether developing their own coast guard fleets is the appropriate way for states to respond to China's coast guard expansion is a matter of ongoing debate among policy makers in the region.[12]

Further complicating the operational environment for coast guards is the existence among states of overlapping maritime claims to maritime features and adjacent waters in the Spratly, Paracel, and Senkaku Islands in the East and South China Seas, areas that for some states lie far beyond their 200 nm EEZ boundaries. Using a coast guard to patrol disputed territory far from a nation's coastline appears to be a new phenomenon in maritime affairs.[13] In relatively recent history, states have employed navies, not coast guards, as the primary instrument to assert sovereignty claims far beyond their coastal jurisdictional waters. But China, for example, now relies primarily on its coast guard, not its navy, to patrol the area within its "nine-dash line," which covers almost 90 percent of the South China Sea and cuts into the EEZs of five other countries, as well as covering thousands of square kilometers of disputed territory. Other countries—Vietnam, Malaysia, Brunei, Taiwan, and the Philippines—also claim portions of the Spratly Islands and increasingly are dispatching coast guard vessels to patrol the disputed area (figure 3).

As a result of these overlapping claims, countries have adopted tactics that might be considered a deviation from established standard operating procedures of safety and good seamanship.[14] This includes actions such as ramming and using water cannon against civilian vessels, and in some cases other states' coast guard vessels, in an attempt to repel or eject them from a disputed area. Regional states

Naval War College Review, Vol. 70 [2017], No. 2, Art. 5

FIGURE 3
OVERLAPPING CLAIMS IN THE SOUTH CHINA SEA



Source: Wikimedia Commons

for the most part are not interested in employing coast guards to conduct inspections or prosecute civilian violations based on domestic or international maritime law and conventions because of the diplomatic fallout that might result from arresting violators and sending them back to host nations.[15] Instead, coast guards are used primarily to establish presence in disputed areas and as instruments to repel and coerce rival claimant vessels. The greatest weapon in this "competition for presence" is the number and size of vessels countries can bring to bear in disputed waters. China, by all accounts, appears to be outpacing all other regional actors in terms of vessel numbers and total capacity.

Before turning to an examination of each of the four coast guards in the study, it is important to highlight the application of international law to the question of use of force by MLE entities, so as to understand better the legal principles governing "policing" versus "national defense" functions at sea.

USE OF FORCE BY MARITIME LAW-ENFORCEMENT AGENCIES UNDER INTERNATIONAL LAW

What constitutes an act of *military* aggression against another state, for example, as opposed to a state simply executing what it considers *law enforcement* based on domestic maritime law? When are the actions of MLE agencies considered a breach of international standards of navigation and safety at sea? These questions are important when considering the sheer number of MLE vessels operating in East and Southeast Asia and their use of increasingly assertive tactics. International courts of law have ruled on the issue of use-of-force actions undertaken by MLE agencies in disputed maritime zones, in particular on which criteria differentiate military actions from police or constabulary actions.

A starting point in considering the use of force at sea involves an assessment of whether a state has violated article 301 of UNCLOS, which stipulates that in exercising their rights states shall "refrain from any threat or use of force against the territorial integrity or political independence of any State, or in any other manner inconsistent with the principles of international law embodied in the Charter of the United Nations."[16] This provision, while broad in scope, generally is understood to prohibit aggressive actions at sea that threaten or use force in a manner inconsistent with the UN Charter, with application to both MLE and naval vessels in peacetime. However, not all use-of-force measures can be interpreted clearly under UNCLOS as "aggressive actions," including cases involving MLE vessels employing less-than-lethal degrees of force against foreign vessels or naval vessels purporting to be undertaking law-enforcement activities in jurisdictional waters.

The *Guyana v. Suriname* case involving paramilitary activities, which came before an arbitral tribunal under the Permanent Court of Arbitration (PCA) in 2007, provides perhaps the most relevant ruling on the distinction between MLE and military use of force under UNCLOS. The case involved a use-of-force action by the Suriname Navy against an oil-drilling platform operating in waters disputed by Suriname and Guyana. The Suriname Navy approached *C. E. Thornton,* an American oil-drilling rig retained by the Canadian-owned CGX Energy Inc., and warned the rig repeatedly to leave the area or face "consequences."[17] Those in charge of the oil rig, fearing lethal force, promptly withdrew it from the disputed area. The tribunal was asked to rule on whether Suriname had violated UNCLOS by its threat to use "armed force" against state assets operating in the territory of Guyana. Suriname, on the other hand, maintained that the measures it took did not constitute such a threat of use of force, but instead had been "of the nature of reasonable and proportionate law enforcement measures to preclude unauthorized drilling in a disputed area of the continental shelf."[18]

To decide on this point of contention, the tribunal had to consider the characterization of the threatened force in the CGX incident. In doing so, it first affirmed that in international law "force may be used in law enforcement activities provided that such force is unavoidable, reasonable and necessary."[19] This, however, did not prevent the tribunal from unanimously ruling that Suriname's actions went beyond those appropriate for MLE missions: "The action mounted by Suriname on 3 June 2000 seemed more akin to a threat of military action rather than a mere law enforcement activity [and] therefore constituted a threat of the use of force in contravention of the Convention, the UN Charter and general international law."[20] In other words, the tribunal held that the warning by the Suriname Navy—which claimed to be undertaking law-enforcement duties in disputed territory—for the oil rig to leave the area or "face the consequences" had crossed a threshold that constituted a "threat of the use of force" in violation

of UNCLOS principles, in particular article 301. (The tribunal did find that Suriname's actions fell into the category of "less grave forms" of the use of armed force, like those typical of border incidents.)

The *Guyana v. Suriname* case admittedly addresses only a small subset of potential acts of armed aggression. There exists a large range of conduct, constituting a continuum, with armed military force on one end and "less grave" forms of forcible measures against foreign ships by MLE agents on the other. However, the case sets a precedent that international lawyers and analysts can use to assess whether a certain use of force, or threat to use force, by a vessel purporting to enforce maritime law is unavoidable or necessary or both in the particular context of the MLE mission it is undertaking in disputed waters.

A second important recent legal ruling was not directly related to the use of force at sea, but merits examination because of its impact on coast guard operations in disputed areas. An arbitral tribunal under the PCA ruled in July 2016 on a case brought by the Philippines against China regarding the latter's maritime claims in the South China Sea.[21] In particular, in section VII(F) of the ruling, entitled "Operation of Law Enforcement Vessels in a Dangerous Manner," the court examined whether the actions of China's MLE vessels near Scarborough Shoal had breached articles 21, 24, and 94 of UNCLOS by operating in a "dangerous manner causing serious risk of collision to Philippine vessels." In rendering its judgment, the court relied on the guidelines in the Convention on the International Regulations for Preventing Collisions at Sea, 1972 (COLREGS), of which both China and the Philippines are members, as one of the "generally accepted international regulations" to which flag states are required to conform regarding rules of navigation, avoidance of accidents at sea, and good seamanship.

In unambiguous terms, the court found that Chinese actions had violated rules 2, 6, 7, 8, 15, and 16 of the COLREGS, thus breaching article 94 of UNCLOS. In particular, passage 1105 of the report rendered the following judgment:

> In light of the foregoing analysis, the Tribunal considers China to have repeatedly violated the Rules of the COLREGS over the course of the interactions described by the crew of the Philippine vessels and as credibly assessed in the two expert reports. Where Chinese vessels were under an obligation to yield, they persisted; where the regulations called for a safe distance, they infringed it. The actions are not suggestive of occasional negligence in failing to adhere to the COLREGS, but rather point to a conscious disregard of what the regulations require.[22]

In other words, the court dismissed the notion that Chinese actions were simply a defensive measure undertaken in response to a perceived threat from the Philippines. Rather, the court found that Chinese maneuvers themselves created an immediate danger, demonstrating a "serious and apparently intentional

breach" of the requirement that ships take precautions to avoid accidents at sea, as required under the COLREGS.[23]

As in all cases before an international court of law, culpability depends on the specific evidence brought to bear within the case and the specific context of the scenario examined. However, on the basis of the *Guyana v. Suriname* and *Philippines v. China* cases before two arbitral tribunals, it is reasonable to assess that many of the actions that MLE vessels have been undertaking in the South China Sea that are the focus of this article would be found in a court of law to be in violation of several articles of UNCLOS that prohibit excessive use or threat of use of force by MLE actors or state assets undertaking MLE-type missions.

EAST AND SOUTHEAST ASIA COAST GUARDS

The following sections will examine the history and organization of the four coast guard agencies chosen for this study. The study will also present three case studies that highlight the role of coast guards in territorial disputes within the region.

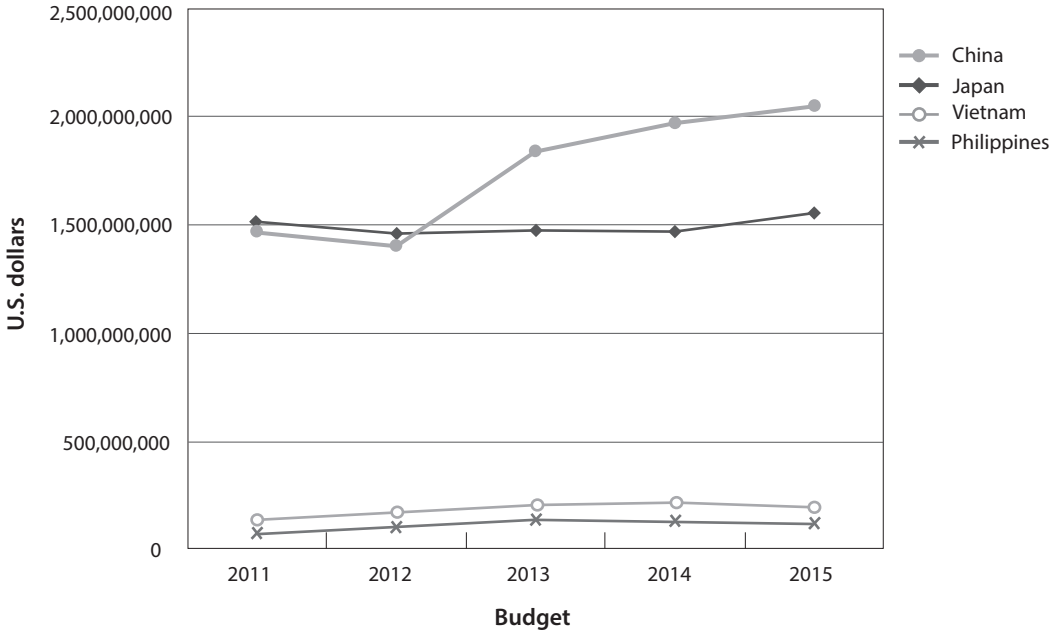
China

China is a prime example of a country that has chosen to deploy coast guard assets instead of its navy to assert claims over maritime features and waters in the East and South China Seas. Interviews with Chinese scholars and officials reveal that Chinese policy makers employ coast guards to attempt to demilitarize territorial disputes, as well as to show rival claimants that China views these disputed areas as sovereign Chinese territories subject to *domestic* laws and regulations. From the perspective of Chinese policy makers, invoking domestic law as the basis for China's coast guard presence in disputed territory confers legitimacy in areas where naval vessels traditionally might be deployed—subject to international laws of warfare.[24]

The 中国海警 (China Coast Guard [CCG]) reform of 2013, to be discussed in more detail below, represents the bureaucratic manifestation of a larger commitment to build the largest and most formidable coast guard forces in the world. China spent close to U.S.$8.7 billion on its coast guard from 2011 to 2015, an average of $1.74 billion a year, including both operational and shipbuilding costs (see figure 4).

China's spending constitutes the largest expansion among coast guards in the region over the five-year period. Japan comes in second and remains China's only peer competitor in terms of total budget, spending roughly U.S.$7.5 billion over five years, an average of $1.5 billion a year. Although gaps in data exist for the coast guards of Vietnam and the Philippines over this period, the author estimates that they spend an average of U.S.$100 to U.S.$200 million a year. In comparison, the U.S. Coast Guard spends an average of U.S.$10 billion per year, by far the biggest spender among coast guards in the world.[25]

FIGURE 4
COAST GUARD BUDGETS OF CHINA, JAPAN, VIETNAM, AND THE PHILIPPINES, 2011–15



Source: Author estimates based on open sources. To estimate the total budget of China's coast guard, the author used budget figures for "maritime law enforcement operations" among the various predecessor/constituent agencies available on their websites. This includes spending on "sovereignty protection" and "law enforcement and surveillance" by the State Oceanic Administration; the total budget of the Maritime Anti-smuggling Police within the General Administration of Customs; budgets for "border control" by the Ministry of Public Security; and the total budget of the Fisheries Administration within the Ministry of Agriculture. An estimate was then made on the amount of spending on ships—based on number of ships commissioned and estimates of ship manufacturing costs for each ship dimension—among the various maritime agencies. Finally, these two figures were combined to provide a rough estimate of the total budget of the China Coast Guard from 2011 to 2015; however, owing to gaps in data, it most likely underestimates China's total spending. Except for Vietnam, budgetary estimates for the other countries were derived from budgets published on their coast guard websites or from media articles. Vietnam's estimate was based on a rule of thumb estimate of 5 percent of its annual defense budget. Estimates are rough approximations of the total amount spent over time and are meant for illustrative purposes only.

Budgetary outlays correspond with the overall tonnages of regional coast guard fleets. China's investment has yielded a total fleet size of around 215 vessels, of which 105 are considered large (more than one-thousand-tons displacement) and 110 small (less than one thousand tons).[26] In terms of total tonnage, China boasts the largest coast guard in the world at roughly 190,000 tons, enjoying substantial quantitative overmatch over its Asian competitors (see figure 2).

In January 2016, China laid claim to deploying the largest coast guard vessel in the world, *Haijing 3901,* with a displacement of 12,000 tons and boasting several deck-mounted autocannon, including a 76 mm, and two auxiliary and two antiaircraft machine guns.[27] Since the 2013 reorganization, most but not all CCG vessels have been refashioned with front- or rear-mounted autocannon or both, ranging in caliber from 25 to 57 mm, depending on the size of the vessel, and most officers carry light arms on board. CCG air assets remain small, with only six twin-engine turboprop, fixed-wing aircraft in operation, although more may be coming on line in the near future.[28] Finally, a total of 17,000 personnel work in the Chinese coast guard, although this is likely a conservative estimate.[29]

China's massive coast guard expansion is an outgrowth of then-president Hu Jintao's call for China to become a "maritime power," as outlined in his *Eighteenth Party Congress Work Report* in November 2012.[30] In particular, Hu's call to "resolutely safeguard China's maritime rights and interests" reflected a desire to bolster China's presence in Chinese-claimed waters in the East and South China Seas—areas that Chinese policy makers long believed were poorly regulated and administered owing to disorganized maritime bureaucratic actors with overlapping areas of responsibility. China's current president, Xi Jinping, elaborated on President Hu's "maritime power" strategy by outlining four components for China to pursue in the maritime domain: (1) safeguarding China's maritime rights and interests; (2) developing the marine economy; (3) protecting the marine environment; and (4) enhancing China's capacity for exploiting marine resources.[31] China's coast guard was envisioned as carrying out the tasks within the first component.

At the National People's Congress session in March 2013, policy makers addressed the diffuse nature of China's MLE bureaucracies by reorganizing four of the five MLE agencies and placing them under a new civilian authority. In the Chinese State Council's March 2013 announcement of the reform of the CCG, the council's secretary general Ma Kai cited a need to "enhance the protection of ocean resources . . . and safeguard the state's maritime rights and interests" by revamping the State Oceanic Administration and consolidating four of China's five MLE agencies (referred to by one Western analyst as the "five dragons"[32]) under one unified coast guard *(zhongguo haijing)* under SOA authority.[33]

The SOA, the statement continued, would "formulate maritime development planning, implement maritime sovereignty rights enforcement, supervise the management of the maritime domain and marine environmental protection."[34] The revamped CCG would "develop maritime rights protection law enforcement on behalf of the SOA," a task that aligns with the second of the four missions Xi laid out in his maritime power speech.[35] In other words, policy makers clearly envisioned sovereignty protection as the top priority for the revamped CCG to undertake, as part of the broader set of missions assigned to the SOA. Compared with the missions of the other coast guards in this report, China's and Vietnam's coast guards both emphasize maritime sovereignty protection, while those of Japan and the Philippines focus more on such responsibilities as marine safety, search and rescue, and environmental protection.

On June 9, 2013, the State Council outlined the structure, functions, and size of the reconstituted SOA, referred to as the "Three Decisions Plan" *(sanding fangan)*.[36] The revamped CCG would be one of eleven branches *(zong dui)* within the SOA. It would comprise a headquarters, a command center, and operational branches split among three regions: north, east, and south. The CCG thenceforth

would have full responsibility for coordinating and carrying out law enforcement across the full spectrum of maritime bureaucracies, to include fisheries, customs, immigration, and environmental management. Although it would reside under the SOA, the CCG would receive "operational guidance" from the Ministry of Public Security (MPS). Finally, the restructuring plan calls for establishing a State Oceanic Committee *(guojia haiyang weiyuanhui),* conceived as a high-level coordinating body on maritime operations. The SOA reportedly will "carry out" the committee's "specific tasks."[37]

The placement of the CCG under the SOA reflects China's attempt to "civilianize" the agency. Yet two aspects undermine the notion that the CCG is strictly a civilian entity. First, many new coast guard vessels being deployed are refurbished naval frigates previously decommissioned by the People's Liberation Army Navy (PLAN), armed with an array of ship-mounted automatic machine guns. While these vessels were stripped of some of their military-grade, highly kinetic armaments during decommissioning, much of the armaments and communications equipment architecture was left behind, as well as the reinforced, military-grade hull constructed for environments requiring a high standard of survivability. They thus boast a certain degree of lethality that other coast guards of the region do not offer.[38] Second, many of the officers within the CCG are either from the reformed Border Defense Coast Guard—a branch of the People's Armed Police under the MPS—or receive training within a rank and grade structure more akin to an armed police force.[39]

On July 22, 2013, a new "China Coast Guard" sign was unveiled at SOA headquarters in Beijing, officially inaugurating the new agency.[40] Most ships from all four agencies were repainted white with blue and red stripes, complete with new pennant numbers and with the English name "China Coast Guard" featured prominently. New uniforms were designed and issued to most officers, along with new life jackets. The external makeover, while far from complete, was in full swing within six months of the announcement of the reorganization.

The internal process of merging the various bureaucracies and cultures appears to be moving slower than expected, however. On the basis of interviews with U.S. government officials with knowledge of the reform, it appears that vested interests are preventing full integration of the different agencies.[41] Individual agencies do not seem to be operating as one cohesive whole, with each still executing its own patrols and operating under old command-and-control (C2) structures. For example, one CCG official noted that officers wear their new uniforms only during "national security" patrols in the East and South China Seas.[42] The fact that the officers wore uniforms from all four "dragons" at the most recent CCG press conference substantiates the claim that a complete merger has not taken place.[43] According to this official, the "Three Decisions Plan," unveiled in June 2013, still

is awaiting final approval from senior Chinese policy makers.[44] Finally, most vessels still do not mix officers from each of the four agencies, and officers are not undergoing an expanded course of training in areas such as fisheries, customs, and immigration enforcement, as would be expected under a unified command.[45]

Nonetheless, there are indications that the CCG has enhanced coordination and become more confident as a result of the reform. Patrols of disputed waters in the East and South China Seas have increased in regularity and scope.[46] Their central mission is to assert administrative control over disputed territory. Patrols also act to defend what the Chinese deem to be legitimate interests by protecting fishing vessels and natural resource and scientific exploration and attempting to halt "illegal" foreign activities—including foreign fishing and oil and gas exploration.

Furthermore, China's use of force appears to be evolving—becoming more assertive. In the past, Chinese vessels adopted a relatively nonconfrontational approach when they encountered what China regarded as illegal activities of foreign vessels. Typically they would query the other vessels regarding the purpose of their deployment, meanwhile verbally declaring Chinese sovereignty through radio communications *(han hua)*. Only in rare cases did they attempt to expel foreign vessels, for which they used floodlights; water cannon aimed near the vessel, as a warning; and close-proximity maneuvering.[47] Starting around 2011, two shifts in use of force became apparent. First, Chinese vessels began to employ more-aggressive actions, such as ramming and the use of water cannon inside the cabins of opposing vessels.[48] Second, Chinese fishing vessels were used more frequently as proxy arms of the CCG and the PLAN. Vietnamese officials traced the latter development to 2011, when a Chinese fishing vessel cut a seismic cable of a Vietnamese civilian survey ship, seemingly carrying out the actions pursuant to Chinese state policy.[49] Both Philippine and Vietnamese officials noted an increased propensity for Chinese fishing vessels to "stand and challenge" attempts by the countries' coast guards to arrest Chinese fishermen in or otherwise repel them from designated areas. In the past, according to these officials, Chinese fishermen usually would depart the scene or acquiesce to boardings.[50] Finally, officials also noted an increase in bullying tactics by CCG officers who boarded Philippine and Vietnamese fishing vessels, such as taunting fishermen at gunpoint, throwing out catch, and stealing property and money.[51]

Recent training exercises involving the CCG and PLAN highlight growing institutional interaction. The first large-scale joint exercise, East China Sea Cooperation 2012, was held in October 2012. It involved vessels from the PLAN East Sea Fleet, the Fisheries Law Enforcement Command (FLEC) East China Sea Bureau, and the China Marine Surveillance (CMS) East China Sea branch. The training involved a scenario in which Chinese fishing vessels were "followed, harassed, and hindered" by vessels from another country. PLAN

frigates then "quickly took up positions right and left of the Marine Surveillance and Fisheries Law Enforcement vessels and warned, monitored, intimidated and blocked" the foreign vessels.[52] A subsequent joint exercise was held in May 2013, with the PLAN South Sea Fleet participating alongside FLEC and CCG vessels near the Spratly Islands. The participants reportedly set up "scientific and effective interaction mechanisms" and "jointly formed a line of maritime defense with military and civilian forces."[53] Finally, CCG vessels participated in an exercise with PLAN units near Dongguan City in Guangdong Province in November 2013. Participants included local military units alongside customs, maritime police, and security personnel from the Dongguan Maritime Bureau.[54] These training exercises highlight the increasing cooperation between the CCG and PLAN and demonstrate a desire to create C2 synergies between the two bureaucracies. As recent events make clear, CCG and PLAN vessels appear to be working in closer coordination to repel Vietnamese vessels from disputed territory in the Spratlys.[55] Since the Chinese State Council has yet to issue a formal coast guard law, it is unclear whether the CCG retains a war-fighting function alongside the PLAN similar to that of the U.S. Coast Guard during wartime. One could reasonably assume, given recent CCG-PLAN training, that such a function does exist.

Overall, while reform is still in its early stages, the coast guard China is developing gives cause for both optimism and concern. Chinese policy makers' decision to replace their navy with coast guard forces as the central actor in executing what China calls "maritime rights protection" patrols in the East and South China Seas is, on one level, a positive development in terms of dampening the potential for escalation. The inadvertent sinking of a naval vessel carries far more catastrophic consequences, from a crisis-stability standpoint, than does the sinking of a coast guard or fishing vessel, for example. On the other hand, China deploys its coast guard as a coercive civilian arm of its military.

China's numerical superiority over its smaller peers ensures continued dominance within the region. The exception is Japan's coast guard, whose assets and experience appear to mitigate the adoption of more-assertive tactics by the Chinese during patrols around the Senkaku Islands.

Japan

The 海上保安庁 (Japan Coast Guard [JCG]) was founded in 1948 as a civilian MLE entity called the Maritime Safety Agency (MSA). For decades, the agency played a tertiary role to the U.S. Navy and the Japanese Maritime Self-Defense Force (JMSDF) in executing Japan's MLE and search-and-rescue (SAR) missions along the Japanese coastline. The MSA's role increased significantly with the 1986 U.S.-Japanese SAR agreement that gave Japan sole responsibility over SAR activities within most maritime areas within Japan's EEZ and beyond.[56] In 2000, the

MSA was reorganized under the Ministry of Land, Infrastructure, Transport, and Tourism and officially changed its name to the Japan Coast Guard.

As an island state, Japan's combined territorial and exclusive economic zone is nearly twelve times larger (4,470,000 sq. km) than its land area (380,000 sq. km). This presents the JCG with a formidable maritime area to patrol. It is no surprise, then, that among Asian coast guards the JCG boasts the second-largest fleet in tonnage, is the second largest in numbers of personnel, and has the most coast guard aircraft. In terms of fleet size, the U.S. Office of Naval Intelligence estimates that Japan has approximately fifty-three large and twenty-five small vessels in operation.[57] The largest vessels in the JCG fleet include two PLH-class vessels with a displacement of 6,500 tons (9,000 tons fully loaded) and two *Mizuho*-class vessels of 5,200 tons.[58] For comparison, the largest and most capable destroyers in the JMSDF, the *Kongo*-class vessels, displace approximately 9,500 tons. Most of the medium-to-high-endurance JCG vessels are equipped with deck-mounted autocannon that range in caliber from 20 to 40 mm, and most JCG officers carry light firearms for self-defense.[59] Notably, the PLH-class cutters are only equipped with two Oerlikon 35–40 mm autocannon and two M61 Vulcan 20 mm six-barrel Gatling-style guns, compared with the 76 mm cannon on China's largest cutter, *Haijing 3901*.

In terms of aviation assets, the JCG has by far the largest fleet in Asia, second only to the U.S. Coast Guard in the world, boasting twenty-six fixed-wing aircraft and forty-eight helicopters.[60] Finally, the JCG has roughly 13,500 personnel, second most among coast guards in Asia.[61]

A 2001 revision of the JCG law ushered in an expanded set of missions for the service beyond simply SAR at sea. They include the following tasks:

- Patrolling Japan's territorial seas and EEZ
- Countering smuggling and illegal immigration
- Countering piracy
- Countering terrorism
- Conducting surveillance of illegal operations by foreign fishing vessels
- Acting against suspicious vessels and surveillance ships
- Dealing with unlawful acts by foreign oceanographic research vessels
- Firing on noncompliant vessels that ignore warnings
- Patrolling and guarding waters near disputed territory, such as the Senkaku Islands[62]

While the formal justification for the JCG's expanded roles and missions focused on the service's police and maritime safety functions, the 2001 law and the ensuing evolution from a strictly MLE and SAR entity to one that undertakes territorial protection and can use force for defensive purposes represent a significant change in Japanese national security strategy. Richard Samuels calls the expansion of the JCG's mission sets "the most significant and least heralded Japanese military development since the end of the Cold War."[63]

The refinement of the JCG's role as a frontline defender of Japanese territory even as the service remains an important element of the enforcement of laws pertaining to customs, immigration, SAR, and fisheries brings it more in line with the U.S. Coast Guard in mission and practice. It is no coincidence that the training and the standard operating procedures of the JCG closely resemble those of the U.S. Coast Guard. For example, as in the U.S. Coast Guard, most JCG personnel are sworn customs officers and undergo rigorous training in their coast guard academy in the skills necessary to perform a wide range of MLE duties in such areas as fisheries regulation, counternarcotics, counterterrorism, and immigration.

Article 25 of Japan's coast guard law states explicitly that the JCG is not a military organization and that the responsibilities it undertakes should not be considered similar to those of an "armed force."[64] However, articles 18 and 20 provide sufficient leeway for coast guard personnel to use deadly force as a police entity against noncompliant domestic and foreign vessels.[65] Indeed, months after the passage of the 2001 coast guard law, the JCG engaged in Japan's first use of deadly force since the end of World War II, firing in self-defense on an unmarked North Korean spy vessel after the North Korean vessel apparently fired on the JCG vessel using what have been called "military-grade armaments." The clash, which became known as the battle of Amami-Ō-shima, resulted in the sinking of the North Korean vessel and the deaths of fifteen North Korean crewmembers.[66] The incident remains the largest maritime conflict in the history of postwar Japan and thrust the JCG into the spotlight as an important, albeit controversial, arm of Japanese maritime security policy.[67]

This was not the first encounter between the JCG and a North Korean spy ship, however. A lesser-known clash occurred in March 1999, twenty-eight miles off the Noto Peninsula. In this incident, the JCG had to request assistance from the JMSDF, which fired warning shots at and pursued several suspected North Korean spy ships for over twenty-four hours before abandoning the chase on reaching North Korean territorial waters.[68] The military action marked the first time Japan had fired warning shots since 1953 and the first employment of a 1954 law that allows the prime minister to request assistance for the JCG from the JMSDF during encounters with foreign naval or spy vessels.

The 1999 incident forced the JCG to consider how to increase coordination between MLE forces and the JMSDF when encountering vessels armed with military-grade heavy weaponry. Up to that point, the JCG law lacked language legalizing the use of force within Japanese territorial waters against "suspicious vessels" equipped with "military-grade armaments," such as the North Korean spy ship, during the course of which JCG officers might inflict injury or death on suspects while firing warning or disabling shots. The 2001 JCG law greatly enhanced the JCG's ability to use force against suspicious or noncompliant armed vessels, and increased its ability to call on the JMSDF for assistance when needed. The JCG also has begun training with JMSDF forces, in June 2015 participating in a first-ever joint civilian-military "gray zone" exercise that lasted ten days.[69] However, Japan's coast guard law does not assign the JCG a war-fighting function with the JMSDF during wartime.

Looking to the future, the JCG plans to build an additional twenty-five vessels over the next five years, in large part to address increasing concern over Chinese actions near the Senkaku Islands.[70] Of these twenty-five vessels, ten medium-endurance vessels (one thousand to three thousand tons) are to be deployed to Ishigaki Island, site of the 11th Regional Coast Guard Headquarters, the closest outpost with vessels responsible for patrolling the disputed Senkaku Islands. Two four-thousand- to six-thousand-ton high-endurance helipad vessels already have been deployed, to nearby Naha Island because of pier constraints at Ishigaki.[71] This accretion of vessels near the Senkakus is part of a broader strengthening of presence in the area, to include the addition of a six-hundred-member unit exclusively for the Senkaku area of responsibility.[72] In March 2016, Japan announced that it had built a radar observation station on Yonaguni Island, about ninety miles east of Taiwan and south of the Senkakus. According to Colonel Masashi Yamamoto, military attaché with the Japanese embassy in Washington, the radar station is part of a "three-phased" approach to contingency planning for any escalation of tensions around the Senkakus.[73] This buildup in manpower and facilities in all likelihood will continue while China maintains or increases its rate of incursions into the Senkaku Islands territorial sea.

It is these Senkaku Islands (known as the Diaoyu Islands in Chinese) that are the subject of this article's first case study. Both Japan and China claim them. The Japanese government's purchase of three of the islands from their private Japanese owner on September 11, 2012, set off a diplomatic dispute over sovereignty that continues today. After the announcement, the Chinese foreign ministry called the purchase "totally illegal and invalid," saying the move "can in no way change the historical fact that Japan stole Diaoyu and its affiliated islands from China and the fact that China has territorial sovereignty over them."[74] Four days after the purchase, the biggest anti-Japanese protests since China and Japan

normalized diplomatic relations in 1972 broke out in cities across China. The Japanese embassy in Beijing was besieged by hundreds of protesters throwing rocks, eggs, and bottles.[75]

In the days that followed, two Chinese ships, *Haijian 46* and *Haijian 49* of the CMS, penetrated the 12 nm territorial sea of the Senkakus.[76] China's actions, it emerged, were a precedent for a water and air incursion campaign into the Senkakus contiguous zone, territorial waters, and airspace by China that became routinized over subsequent years.

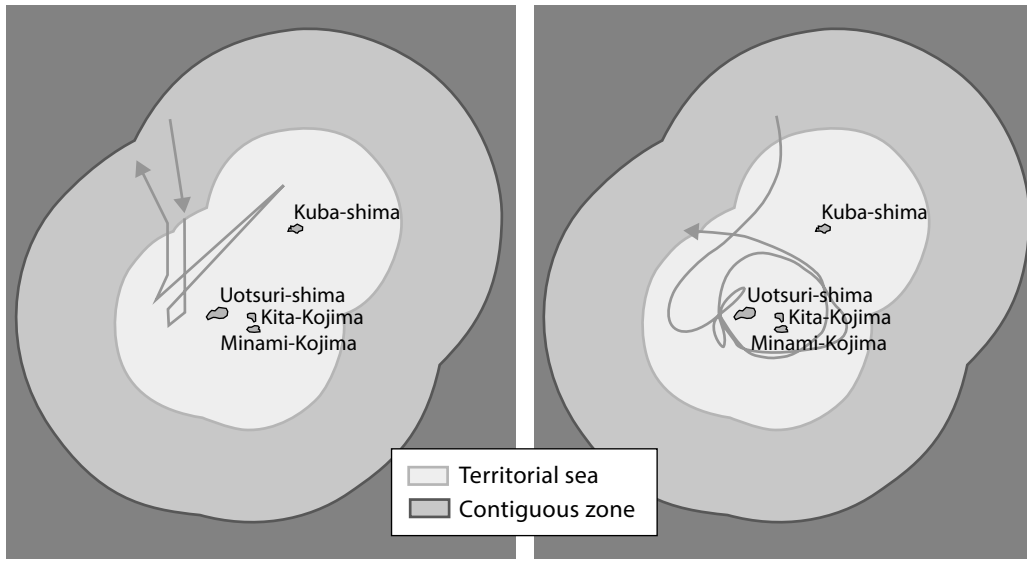
By the end of 2012, the JCG reported that Chinese coast guard ships had intruded into Senkaku territorial waters sixty-eight times since September 11, an unprecedented spike in intrusions from previous years.[77] The campaign continued, with 188 vessels penetrating the territorial sea in 2013, 88 in 2014, and 86 in 2015. On the basis of reporting from the SOA, the same eighteen CCG hull numbers appear to be responsible for patrolling the Senkaku Islands; the ships range in size from one thousand to four thousand tons.[78] Notably, *Haijing 3901,* which is assigned to the East China Sea area of operations, has yet to be deployed near the Senkakus.

China has supplemented its maritime pressure by flying naval and coast guard surveillance aircraft close to the islands, contributing to a record number of air-defense scrambles by Japanese fighter jets in the area. In fiscal year 2014, Japanese fighter jets undertook 943 scrambles, 464 of which were to intercept Chinese aircraft near the Senkakus.[79]

The sustained level of penetration of Senkaku territorial waters and airspace, while a clear challenge to Japanese claims of sovereignty and administrative control, has not had the destabilizing effect on the region that some feared.[80] Discussions with JCG officials reveal that China's coast guard officials and diplomats appear very aware of Japan's "redline" regarding Chinese activities in the Senkakus.[81] For example, when entering the territorial waters, CCG vessels typically deploy in groups of two and follow a fairly predictable pattern of behavior: they either make a pass from one end of the group of four Senkaku Islands (Kuba-shima, Uotsuri-shima, Kita-Kojima, and Minami-Kojima) to the other, or circumnavigate the group of islands once, then depart (see figure 5).

The incursions typically last anywhere from three to fourteen hours, and Japan always sends vessels to shadow the CCG vessels out of the territorial sea. There have been no instances of CCG vessels loitering, dropping anchor, arresting Japanese fishing vessels, or charting a path directly toward the islands that would prompt more-assertive countermeasures by JCG vessels in an effort to repel the Chinese vessels from the area. Until recently, there also have been very few instances of Chinese fishing vessels penetrating the Senkaku territorial sea, and no instances of fishing vessels attempting to fish or drop anchor there.[82]

FIGURE 5
NOTIONAL DEPICTION OF CHINESE COAST GUARD PENETRATION OF SENKAKU TERRITORIAL SEA



Source: Author rendering based on Japan Coast Guard annual report on responses to EEZ intrusions from China. See "Responding to China Public Vessels," "Senkaku Island Waters," and "Japan Coast Guard Protection of Territorial Waters and EEZ," in *Japan Coast Guard Annual Report, 2013,* available at www.kaiho.mlit.go.jp/.

Nonetheless, the CCG's recent behavior has raised red flags in Tokyo regarding Beijing's intentions. In November 2015, China for the first time sent a PLAN surveillance vessel into the Senkaku territorial sea; it reportedly "sailed one-and-a-half laps through the waters from east to west before departing westward."[83] The intrusion prompted Japan's Defense Minister Gen Nakatani to announce that the JMSDF could be called on to conduct "maritime policing activities" if a foreign warship entered Japanese territorial waters for purposes other than "innocent passage," if the JCG was "outgunned," or if it became "difficult" for the JCG to "deal with the matter."[84] The following month, China deployed CCG 31239, a refurbished PLAN frigate armed with four 37 mm autocannon, marking the first instance in which China had sent an armed coast guard vessel into Senkaku territorial waters.[85] Japan regarded both actions as a provocative escalation by China, and perhaps a signal from Beijing of a change in strategy. Finally, beginning in early August 2016 and continuing over several weeks, China sent a flotilla of CCG and fishing vessels into the contiguous zone and territorial sea of the Senkakus. A total of thirty-six CCG ships penetrated the territorial sea and two hundred to three hundred fishing vessels penetrated the contiguous zone—the largest number of Chinese government and fishing vessels ever recorded by the JCG in waters near the Senkakus. Of the CCG vessels involved in the August 2016 incident, seven reportedly were armed with cannon.[86]

Generally speaking, however, China's relatively stable pattern of behavior in the East China Sea contrasts with its behavior against rival claimants to territory in the South China Sea. The CCG has shown little desire to undertake provocative or threatening actions against JCG vessels, such as ramming, and seems intent only on establishing administrative control near the Senkakus. Chinese restraint may be a function of the actor involved. Beijing is keenly aware of the escalation potential with Tokyo and understands that Japan possesses both the capability and the capacity to respond to Chinese incursions in ways that smaller claimants in the South China Sea cannot.

Chinese moderation should not be taken for granted, however. As the August 2016 incident makes clear, China has the capacity to inundate Senkaku waters with government and civilian vessels in such a way as to greatly challenge the JCG's capacity to respond. The incident is reminiscent of another standoff that occurred soon after the Japanese government purchased the Senkakus in 2012, in which close to fifty Taiwan civilian vessels (with activists aboard, seeking to land on the islands) and coast guard vessels descended on the islands. In that incident, the JCG used water cannon and shouldered the civilian vessels to prevent them from approaching the islands.[87] The standoff represented one of the greatest challenges to Japanese protection of its claimed sovereign territory, and serves as a reminder that other countries, such as China, could again decide to inundate the Senkaku territorial sea with fishing and coast guard vessels (perhaps, say, on the anniversary of Japan's purchase of the Senkakus).[88]

Vietnam

The Vietnamese Marine Police (Cảnh sát biển Việt Nam) was established in 1998 under the then Ministry of Defense (MoD) as an arm of the Vietnam People's Navy (VPN). Before 1998, the VPN carried out constabulary maritime missions, as the coast guard did not possess the number and type of high-endurance assets needed to undertake primary MLE duties. In 2008, the Marine Police was renamed the Vietnam Coast Guard (VCG) and was elevated in status to an armed service under the joint command of the MoD and VPN.[89] During the same year, the VCG, under the auspices of the MoD, and the Ministry of Transport (MoT) issued a joint circular under which the two agencies would "coordinate operations and information sharing regarding patrols of Vietnamese waters," further stipulating that the VCG would "consult with the MoT on proposed legal documents and coordinate with the MoT on international cooperation, education and training on maritime expertise for Coast Guard staff, [and] communication of relevant legal documents."[90] Then, in October 2013, the VCG became a fully independent civilian armed service under the MoD, in part to be eligible to receive Japanese foreign aid to purchase patrol vessels from Japan.[91]

The change to a civilian entity was a symbolic shift for the coast guard, accustomed to being the "forgotten arm" of the VPN. The separation from the VPN also meant that the commandant of the VCG reports directly to the minister of defense and to the general secretary of the Communist Party of Vietnam, as opposed to just the VPN commander.[92] Like the equivalent services in the Philippines and the United States, the VCG retains both civilian police powers for law enforcement and military duties during wartime. Despite its separation from the navy, the VCG coordinates closely with VPN ships when operating at sea, and VCG ships are still dependent on VPN shipyards for maintenance and repair.[93]

Articles 5 and 6 of Vietnam's coast guard law detail VCG's main missions and responsibilities within Vietnam's territorial waters, contiguous zone, and EEZ. These include (1) protecting national sovereignty; (2) maintaining security, order, and safety; (3) protecting natural resources; (4) preventing environmental pollution; and (5) countering drug trafficking, smuggling, and human trafficking.[94] As with China's coast guard, it is notable that the first task listed for the VCG deals with national sovereignty, which speaks to the degree of emphasis Vietnamese authorities place on territorial protection.

The VCG has approximately fifty vessels: five large (the largest displaces 2,500 tons) and forty-five small.[95] Soon after the *Haiyang Shiyou 981 (HYSY 981)* incident in 2014, Vietnamese prime minister Nguyen Tan Dung announced the allocation of U.S.$540 million to build thirty-two new coast guard ships and hundreds of aluminum fishing vessels that can withstand ramming better.[96] With the delivery of two five-hundred-ton TT400TP-class patrol vessels in January 2016 and the addition of six one-thousand-ton patrol craft pledged from Japan, Vietnam will boast the largest coast guard fleet in Southeast Asia.[97] Most VCG vessels have light-caliber deck-mounted autocannon or machine guns (ranging in size from 14.5 to 23 mm) or both, and most crewmembers carry light firearms for self-defense.[98] The VCG has three fixed-wing CASA C-212 Aviocar patrol aircraft. The VCG has approximately 5,500 total personnel.[99]

In April 2014, Vietnam unveiled a Fisheries Surveillance Force (VFSF) under the Ministry of Agriculture and Rural Development's Directorate of Fisheries. The force is tasked with protecting domestic fishermen and with detecting and managing violations of Vietnam's fisheries laws and regulations by foreign fishermen within Vietnamese territorial and EEZ waters. At the ceremony marking the establishment of the VFSF, Vietnamese authorities emphasized that the most important duty of the force is to "safeguard the country's sovereignty and ensure the safety of fishermen and their vehicles in the country's sea areas."[100] Vietnamese officials highlighted the fact that one million Vietnamese fishermen and 120,000 boats operate in Vietnamese waters, adding that the fishing industry is one of the

country's "key economic sectors." According to Vietnamese officials interviewed, the VFSF's MLE responsibilities are limited to inspecting and fining illegal fishing boats or repelling them from Vietnamese waters. They are not authorized to arrest and transport offenders back to mainland Vietnam for prosecution, for example.[101] The VFSF currently has four small patrol craft of five hundred to one thousand tons and two medium-endurance cutters, called KN-781 and -782, each displacing two thousand tons.[102]

The addition of the VFSF adds another maritime actor with responsibilities for enforcing maritime law to the Vietnamese roster, which includes the VPN, the Vietnam Border Guard (VBG), the Vietnam Maritime Administration (VINAMARINE) under the Ministry of Transportation, the General Department of Vietnam Customs, and the Department of Anti-smuggling under the Ministry of Finance. Of these actors, only the VPN, VCG, VFSF, VINAMARINE, and VBG have vessels that patrol Vietnamese waters. The VBG is responsible for enforcing maritime regulations within Vietnam's territorial sea and inland waterways and does not patrol Vietnam's EEZ. The VINAMARINE undertakes missions related to SAR, environmental protection, and maritime traffic control. The VPN, VCG, VINAMARINE, and VFSF all share responsibility for patrolling Vietnam's EEZ, while the VPN, which has the most high-endurance vessels, is deployed alongside the VCG performing the frontline patrols instituted in response to territorial disputes in the South China Sea.[103] Overlapping mandates and jurisdictions of the above-mentioned agencies have created redundancies in authority, mission, and jurisdiction like those that continue to confront MLE agencies throughout the region.

The *HYSY 981* incident previously mentioned constitutes the second case study. From May 2 to July 15, 2014, China deployed an oil-exploration rig designated *HYSY 981* off the Paracel Islands in the South China Sea; the islands are claimed by China and Vietnam. The location of the rig was roughly 200 nm south of China's Hainan Island and 120 nm from the Vietnamese coast—well within Vietnam's EEZ. The deployment of *HYSY 981* triggered the biggest diplomatic crisis between China and Vietnam since the normalization of relations in 1991, involving mass protests across Vietnam and attacks on Chinese-owned businesses and citizens in the country. The incident also debuted a new operational strategy on the part of China that featured the large-scale deployment of Chinese fishermen and civilian auxiliary vessels working alongside Chinese naval and coast guard vessels to protect the oil rig and repel advances by Vietnamese vessels.

Soon after the oil rig was deployed, China established a security cordon of coast guard and fishing vessels 10–11 nm from the rig, with naval vessels maintaining a presence nearby. One Vietnamese report noted the presence of 102–108 Chinese vessels, including 37–39 coast guard vessels, 12–14 transport vessels,

17–19 tugboats, and 30 fishing boats.[104] In response, Vietnam sent coast guard, naval, and fishing vessels to penetrate the cordon and repel the Chinese vessels from the area. A test of wills ensued, with Vietnamese vessels advancing to within 10 nm of the rig and Chinese vessels repelling their advance. Over the next few weeks, China began to deploy greater numbers of fishing vessels on the front line of the cordon, including maintenance and supply ships, trawlers, and tugboats.[105] China also increased the aggressiveness of its tactics, ramming opposing vessels and using water cannon.[106] In one case, a large Chinese fishing trawler rammed and sank a wooden Vietnamese fishing vessel; all the crewmembers were saved by a nearby Vietnamese coast guard vessel.[107] In another case, a Chinese coast guard vessel used water cannon against Vietnamese fishing and surveillance vessels for hours, in an attempt to flood the vessels and disable their engines.[108]

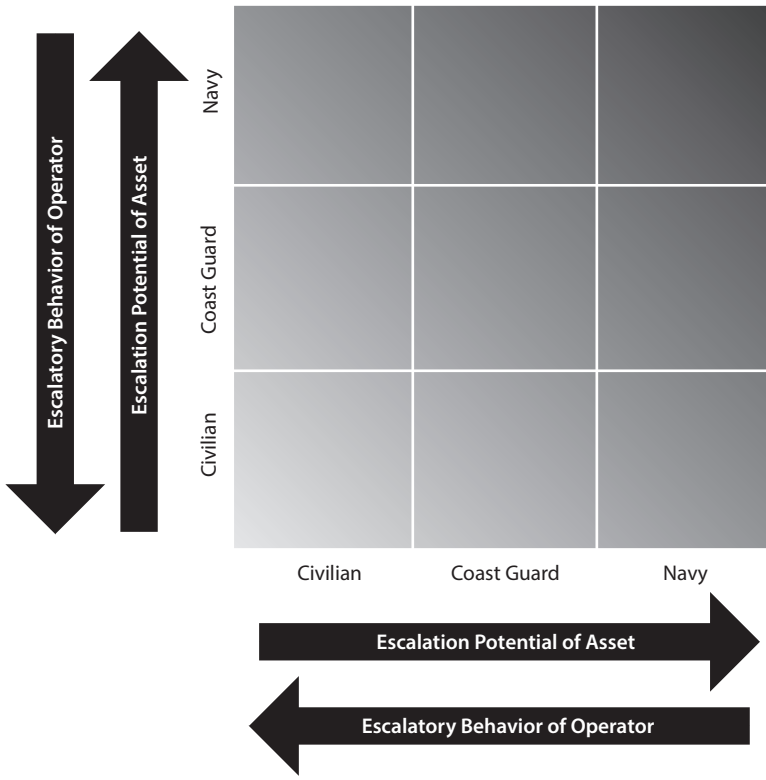
The employment of Chinese fishing and auxiliary vessels during the *HYSY 981* incident is noteworthy not only because it indicates a strategy on the part of China's decision makers to use civilian actors as a first line of defense against other countries' government and military vessels; it also highlights a high level of coordination among the different actors. One Vietnamese official remarked that this was the first time he had seen a coordinated campaign of Chinese fishermen being "out in front" during a conflict and undertaking "assertive actions such as ramming and sinking Vietnamese vessels."[109] The official suspected that these civilian assets and personnel receive guidance, training, and funding from the Chinese military.[110]

Fishing, coast guard, and naval assets operating as one loosely coordinated unit to defend a position injects a new and potentially destabilizing escalation dynamic into the maritime sphere (see figure 6).

In scenarios of this type, fishing vessels, coast guards, and navies can and often do clash with vessels of a different kind. The *HYSY 981* incident showcased fishing vessels ramming other fishing vessels, fishing vessels ramming coast guard vessels and vice versa, coast guard vessels ramming another coast guard's vessels, and coast guard and fishing vessels coming close to naval vessels patrolling the area. As one moves up the escalation ladder from civilian assets through coast guard assets to naval assets, the potential for escalation increases. Yet during the *HYSY 981* incident, operators manning civilian assets exhibited more escalatory actions precisely because they were not employing the strongest weapons or assets available, and because of the plausible deniability of state involvement. A greater willingness for civilians operating civilian assets to undertake assertive actions may explain partially China's use of a fishing trawler to ram and sink a Vietnamese fishing vessel, for example. The involvement of civilian, government, and military assets in this case has introduced a new and potentially dangerous escalation dynamic into the existing maritime environment in the South China Sea.

Naval War College Review, Vol. 70 [2017], No. 2, Art. 5

FIGURE 6
ESCALATION DYNAMICS OF CIVILIAN, GOVERNMENT, AND MILITARY ASSETS DURING *HYSY 981* INCIDENT



The outcome of the *HYSY 981* incident was a bitter pill to swallow for Vietnamese authorities. Vietnam's coast guard and navy found themselves severely outnumbered, and the inclusion of Chinese civilian vessels as proxies for the Chinese state confronted commanders with a fundamentally new combat landscape. For Vietnam, the incident underscored the need for greater investments in naval and coast guard assets, as well as the loosening of use-of-force policies governing its coast guard and fisheries-surveillance forces.[111]

The Philippines

The creation of the Philippine Coast Guard (PCG) (Tanod Baybayin ng Pilipinas) can be traced to October 17, 1901, when Philippine Commission Act No. 266 created the Bureau of Coast Guard and Transportation (BCGT). The BCGT's primary tasks were to maintain lighthouses in different parts of the archipelago, support the inspection trips of government officials, and prevent illegal entry of aliens.[112] On October 26, 1905, its functions were taken over by the Bureau of Navigation, and later by the Bureau of Customs and the Bureau of Public Works.[113]

In 1948, during the early years of the Philippine Republic, the Philippine Naval Patrol, which eventually became the Philippine Navy (PN), was created; it absorbed most of the functions of the coast guard. Then, from 1967 to 1998, under Republic Act (RA) 5173, the coast guard gained the formal name "Philippine Coast Guard" and became a major unit of the PN, part of the armed forces of the Philippines.[114] Perceiving the need to make the PCG a constabulary force under civilian authority, President Fidel V. Ramos signed Executive Orders 475 and 477 in 1998, paving the way for the PCG to be transferred to the Department of Transportation and Communications (DOTC).[115]

On February 12, 2010, the Philippine Congress approved the PCG's statutory place as an armed service under and attached to the DOTC by enacting RA 9993, otherwise known as the Philippine Coast Guard Law of 2009.[116] The PCG therefore is considered a "paramilitary" force because its personnel and vessels are armed, and because it would fall under the command of the Philippine Department of Defense during wartime. The separation from the PN in 2010 also meant that the commandant of the PCG reports directly to the secretary of the DOTC as well as to the president of the Philippines.[117]

The PCG maintains a small fleet of eight medium-endurance patrol craft, mounted with 50 mm autocannon; four buoy tenders; and roughly thirty-two small patrol vessels.[118] Japan's announcement that it plans to sell eight medium-endurance cutters to the Philippines will mean an almost doubling of the PCG medium-endurance-cutter fleet.[119] The PCG has only two operational aircraft—one fixed wing and one helicopter—but it is slated to receive two helicopters from France within the next few years.[120] Finally, there are roughly 9,000 personnel in the PCG, with plans to expand to 13,500 by 2020.[121]

Although notionally it is the central actor overseeing MLE within Philippine territorial and EEZ waters, the PCG, like many other coast guards in East and Southeast Asia, shares that responsibility with a wide range of bureaucracies within the national government. These include the Philippine National Police Maritime Group (PNP-MG), Customs, Immigration, the Philippine Bureau of Fisheries and Aquatic Resources (BFAR), and the PN. The PNP-MG, for example, retains jurisdiction over Philippine territorial waters and has a small fleet of inshore patrol vessels that police these waters. The BFAR, PCG, and PN share jurisdiction over Philippine contiguous zones and EEZ waters. Furthermore, because of institutional reliance on the PN, especially its larger assets that are capable of high-endurance missions in the South China Sea, the PCG plays a secondary role in patrolling disputed territory in this area.

There are three functional commands within the PCG: Maritime Safety Services Command, Maritime Security and Law Enforcement Command, and

Naval War College Review, Vol. 70 [2017], No. 2, Art. 5

Marine Environmental Protection Command.[122] With these three mission sets, the PCG is, in theory, authorized to carry out all MLE functions while on patrol. This includes SAR, customs, immigration, and fisheries enforcement. In fact, the Philippine Coast Guard Law is explicit regarding the various scenarios under which PCG officials may undertake missions and tasks on behalf of other law-enforcement agencies. However, more training is needed for PCG officers to be able to perform the full spectrum of SAR, fisheries, customs, and immigration missions that are required. Furthermore, most PCG vessels are unable to sustain operations far from shore for long periods.[123]

The overlapping mandates and command structures of the PCG and BFAR highlight redundancies that continue to hamper unified MLE action. The BFAR was established under fisheries law RA 8550 to protect Philippine fisherman rights and interests at sea as well as to police illegal fishing activities within the Philippine EEZ.[124] The BFAR maintains its own mandate, command, fleet, personnel, and rules for use of force. Soon after the BFAR was created, it signed a memorandum of agreement with the PCG to coordinate operations, and PCG personnel frequently man BFAR vessels during patrols. Most BFAR patrols in the South China Sea, for example, are under the direct supervision of the PCG.[125] Furthermore, the majority of inspections the PCG conducts and violations it encounters in the South China Sea relate to fisheries enforcement, which are nominally under the purview of BFAR, yet PCG personnel prosecute most cases. This has created an unnecessary overlap in mission and jurisdiction between the BFAR and the PCG that continues today.

One case involving the fatal shooting of a Taiwan fisherman by a BFAR vessel in May 2013 highlights the pitfalls of dueling Philippine MLE actors undertaking use-of-force actions under loose C2 structures. Known as the *Guang Da Xing No. 28* incident, the case involved a BFAR vessel chasing and opening fire on a Taiwan fishing vessel within an area of overlapping EEZs of Taiwan and the Philippines. The BFAR vessel was manned by a mix of BFAR and PCG personnel, and Philippine authorities maintain that the officers were undertaking defensive actions after they were rammed by the Taiwan vessel in Philippine waters; they claim they were attempting simply to disable its engine.[126] However, video footage of the incident appears to show PCG officials indiscriminately shooting dozens of rounds from a firearm into the hull and windows of the Taiwan vessel.[127] A tense diplomatic standoff ensued, with Taiwan imposing sanctions on the Philippines and conducting a series of naval drills near the area where the incident occurred.[128] Ties eventually were mended after a Philippine investigation recommended homicide charges against eight PCG personnel involved in the shooting, and a representative of the Philippine government traveled to Taiwan to apologize officially to the victim's family.[129]

The case highlights vulnerabilities created by overlapping command structures and lack of intra-agency standard operating procedures. As a result of the case, the PCG and BFAR tightened use-of-force procedures and initiated greater coordination of operations between the two services.[130] However, the incident illuminates the larger coordination issues that exist among the PCG and the PN, the PNP-MG, and the BFAR. According to one PCG officer, the different agencies do share some intelligence during patrols and train together occasionally in the classroom, but they essentially operate independently of one another, with few direct communication links.[131] As will be discussed later in the article, the Philippine National Coast Watch System (NCWS) will alleviate some of these issues by sharing intelligence across agencies and providing a common maritime domain awareness picture for operators on patrol. The BFAR also plans to install a million automatic identification system sensors on Philippine fishing vessels, which would increase greatly coordination with domestic fishermen.[132]

The Scarborough Shoal incident, discussed below, has resulted in the PCG being tasked as the primary enforcer of Philippine maritime rights and interests in the country's EEZ, a role the PN traditionally filled. This development, along with the decision to place the NCWS under PCG command, has endowed the PCG with a greatly expanded set of roles and responsibilities within Philippine maritime security policy. However, competing bureaucratic interests, undercoordination with other MLE agencies, and chronic underfunding by the Philippine government continue to hamper the PCG's development and have forestalled its realization as the preeminent force protecting Philippine maritime interests.

The aforementioned Scarborough Shoal incident provides the third case study. The April 2012 standoff between the CCG and the PN and PCG that occurred at Scarborough Shoal in the South China Sea was a highly contentious and dangerous test of wills between the respective nations. It began on April 8 when the PN flagship, BRP *Gregorio del Pilar* (a decommissioned and transferred U.S. Coast Guard cutter), attempted to apprehend several Chinese fishing boats suspected of hauling an illegal catch of corals, clams, and live sharks. PN officers boarded one vessel and discovered the catch. After the Philippine sailors disembarked, the Chinese vessels sent a distress call to local officials in Hainan via satellite phone.[133] When PN personnel attempted to board a second vessel, two 1,500-ton CMS (CMS is now part of the CCG) vessels, *Haijian 75* and *Haijian 84,* arrived and inserted themselves between the Philippine warship and the Chinese fishing vessels, preventing an arrest.[134]

Chinese statements and actions at the outset of the standoff marked a dramatic departure from earlier behavior. This was the first time a CCG vessel had prevented the PN from arresting Chinese fishermen. More significantly, China challenged Philippine territorial waters over a shoal that was 124 nautical miles

from the Philippine island of Luzon and well within the Philippine EEZ. According to Philippine officials, China had never issued such stern warnings about the shoal being Chinese territory.[135]

On April 10, Philippine president Benigno Aquino III, realizing that his country was engaged in a dangerous standoff with a militarily superior foe whose behavior lately had become unpredictable, made a decision that would greatly influence the development of the PCG. He decided to withdraw *Pilar* and replace it with the largest coast guard vessel in the PCG fleet, the thousand-ton medium-endurance cutter BRP *Pampanga* (SARV 003), to de-escalate the conflict. This was the first time a PCG asset had been deployed so far from shore.[136] Aquino's decision was in part a response to Executive Order No. 57 of September 2011 that created the NCWS, an intelligence fusion center housed adjacent to the PCG headquarters, to integrate Philippine maritime security operations in one centralized location, in part to promote a "white to white, gray to gray" approach to dealing with foreign government vessels.[137]

By the time *Pampanga* replaced *Pilar,* China had deployed *Yuzheng 310*—a 2,500-ton fisheries-surveillance cutter—initiating a tense standoff.[138] At that point, the PCG was outnumbered three to one by its CCG counterpart, not to mention three Chinese fishing vessels in the area.[139] A few weeks later *Pampanga* was replaced by BRP *EDSA II,* similar in size to *Pampanga*—a move apparently made out of necessity to replenish *Pampanga,* which was not accustomed to such long-distance operations.[140] Another, smaller (hundred-ton) BFAR patrol vessel was deployed to the scene around this time.[141] At one point in May, China had increased the number of its vessels near the shoal to ninety-seven—five CCG and ninety-two fishing and auxiliary vessels.[142]

The standoff continued for over three months, with diplomats of the two countries trading many acrimonious statements, until the U.S. State Department reportedly stepped in to mediate a resolution to the standoff under which both parties agreed to pull back from the shoal.[143] On June 4, both sides initiated various stages of withdrawal, but each maintained a presence just over the horizon. After just a few days—claiming that a deal to withdraw had never been reached—China returned its vessels to the shoal.[144] A few months later it was revealed that China had tied across the entrance to the shoal a rope that blocked entry.[145] The Chinese coast guard presence—along with the rope—remains today.

The Philippine government was shocked at the result of the standoff, not only having lost a rich fishing ground on which the Philippine fishing industry had relied for decades, but also having placed false hope in China honoring its commitment to the U.S.-brokered agreement to depart the area. The incident forced Philippine national security policy makers to reassess both the use of naval assets to conduct MLE duties, such as boardings of foreign civilian fishing vessels,

and the appropriateness of confronting CCG vessels with naval vessels. In many regards, the incident was a watershed moment for the PCG. From that point onward—notwithstanding the Philippines and the PCG coming away from the incident with a sense of defeat—the PCG has taken on a primary role as enforcer of Philippine maritime interests in the South China Sea.

The incident also confirmed for the Philippines a new trend in CCG behavior, starting in 2011: that of CCG vessels practicing more-aggressive tactics and of Chinese government and fishing vessels being more willing to challenge Philippine territorial claims in the South China Sea. Such behavior was on display not only during the Scarborough Shoal incident but also when Chinese vessels for the first time blocked two attempts by PCG ships to resupply their garrison of troops on Second Thomas Shoal on March 9, 2014, during China's brief seizure of Jackson Atoll in March 2016, and when CCG vessels reportedly rammed a Philippine fishing vessel near Scarborough Shoal in March 2016.[146] According to Philippine officials interviewed, China now appears intent on disrupting Philippine resupply missions to its garrison on Thitu Island (known in the Philippines as Pag-asa Island), the largest Philippine-occupied island in the South China Sea and home to over three hundred Philippine citizens.[147]

On the basis of the above analysis and examination of the specific case studies, China's increasingly aggressive employment of its coast guard as an instrument of state power and its use of tactics that blur lines between acts of armed aggression and acts of law enforcement are reshaping fundamentally the maritime security environment in East and Southeast Asia. In contrast to its actions in the East China Sea, where China appears to have routinized its activities to avoid unnecessary escalation with Japan, China's adoption of tactics such as shouldering, ramming, and the use of water cannon to intimidate smaller claimants in the South China Sea, in conjunction with its increasing reliance on civilian fishing vessels as proxies, greatly challenges the responses of other actors in the region.

China's use of civilian vessels provides plausible deniability against claims of assertive state-sanctioned tactics. The use of fishing, coast guard, and navy vessels in proximity to each other in disputed waters presents an interdependent web of possible escalation dynamics that are too little studied, yet potentially destabilizing to Southeast Asia. It will be incumbent on maritime states to continue to exercise restraint if situations involving such a plethora of actors are to be contained at a manageable level.

China's desire to consolidate administrative control over the vast majority of maritime zones in the South China Sea and its unprecedented level of investment in its coast guard fleet have prompted other regional states to turn to coast guards to counter the threat they perceive to their maritime environment and to

bolster administrative control over disputed territory. For several of the states examined in this study, however, chronic underfunding, insufficient training, underresourced facilities, and legacies of naval jurisdiction over maritime areas all hinder the proper development of their coast guards and all but ensure a significant quantitative gap in coast guard fleets between China and others in the region. Among the four coast guards in this study, Japan's stands out as the most professional and well organized force, one that has been able to overcome many of the bureaucratic impediments from which other coast guards in the region suffer.

Furthermore, the existence of unresolved territorial disputes in the South China Sea makes it somewhat of an anomaly with regard to coast guard missions. In an environment of competing territorial claims, any exercise of domestic authority in disputed waters by one coast guard has the potential to be contested by another nation as a violation of its sovereignty.[148] Thus, for the foreseeable future, the budgetary battle will continue to play out among certain countries in Southeast Asia over whether navies or coast guards should be deployed as the primary asset to combat nontraditional maritime security threats.

In the near term, the disputants should consider two approaches to mitigate tensions. First, a code of conduct (CoC) negotiated among the claimants in the East and South China Seas should be pursued, as some have proposed.[149] While efficiencies might be derived from pursuing such agreements within larger, existing, multilateral groupings, such as ASEAN, the author believes a CoC should be pursued directly by the claimants themselves, either bilaterally or multilaterally.

Second, confidence-building and information-sharing mechanisms may offer another alternative that seeks to build relationships among coast guard commanders.[150] The creation of the U.S.-initiated North Pacific Coast Guard Forum (NPCGF) in 2000 stands out as an important success story with potential applicability to Southeast Asia. NPCGF brings together the coast guards of Canada, China, Japan, Russia, South Korea, and the United States for annual meetings, information sharing, and multilateral multimission exercises. NPCGF provides joint-operations components such as a U.S.-Chinese joint fisheries shiprider agreement and a combined operations manual, in addition to building trust and permitting information sharing, including law-enforcement best practices, among partner nations more generally.[151] A regional forum patterned after NPCGF but among the coast guards of Southeast Asia and China—to include both information-sharing and operational components—should be considered as a prescription to reduce tension and build trust.[152] Such a forum could go a long way toward promoting professionalism across coast guard fleets and perhaps lessen the use of some of the destabilizing tactics those coast guards have been employing.

NOTES

The author thanks the RAND Center for Asia Pacific Policy's Tang Institute for U.S.-China Relations for its financial support. The author also benefited greatly from feedback from and interactions with the following individuals: Rafiq Dossani; Scott Harold; Andrew Scobell; Scott Savitz; Henry Willis; Bonny Lin; Adm. James Loy, USCG (Ret.); Rear Adm. Timothy Sullivan, USCG (Ret.); Vice Adm. Robert Parker, USCG (Ret.); Lt. Cdr. Russell Zuckerman, USCG; Cdr. Anthony Russell, USCG; Capt. Stephen White, USCG; Carl Thayer; and the numerous coast guard officers, naval officers, and academics interviewed in the Philippines, Vietnam, Japan, and China.

1. The People's Liberation Army Navy, for example, was involved in an incident with the Philippines in February 2011 that involved the firing of warning shots against Philippine fishing vessels. Tessa Jamandre, "China Fired at Filipino Fisherman in Jackson Atoll," *VERA Files,* June 3, 2011, available at news.abs-cbn .com/.

2. States traditionally have employed navies as the primary instrument to assert sovereignty claims. The exception appears to be the recent employment of coast guards to assert territorial claims over the Senkaku/Diaoyu Islands, by China and Japan; to assert claims over the Dokdo/Takeshima Islands, by South Korea and Japan; to assert claims over maritime features in the South China Sea, by China, Vietnam, the Philippines, Taiwan, and Malaysia; and to assert claims over Pedra Branca features, by Singapore and Malaysia. For a general overview of navy and coast guard roles in conflict, see Bruce Mitchell, "Politics, Fish, and International Resource Management: The British-Icelandic Cod War," *Geographical Review* 66, no. 2 (April 1976), pp. 127–38; Robert L. Scheina, *Latin America: A Naval History, 1810–1987* (Annapolis, MD: Naval Institute Press, 1987); David Brown, *The Royal Navy and the Falklands War* (Barnsley, U.K.: Pen and Sword, 1987); Ivan Shearer, "The Development of International Law with Respect to the Law Enforcement Roles of Navies and Coast Guards in Peacetime," in *The Law of Armed Conflict: Into the Next Millennium,* ed. Michael N. Schmitt and Leslie C. Green, International Law Studies 71 (Newport, RI: Naval War College, 1998); Arnfinn Jorgensen-Dahl, "The Soviet-Norwegian Maritime Disputes in the Arctic: Law and Politics," *Ocean Development & International Law* 21, no. 4 (1990), pp. 411–29; Jonathan I. Charney and Lewis M. Alexander, eds., *International Maritime Boundaries* (Leiden, Neth.: Martinus Nijhoff, 1991); and U.S. Navy, U.S. Marine Corps, and U.S. Coast Guard, *The Commander's Handbook on the Law of Naval Operations* (Newport, RI: Navy Warfare Development Command, 2007).

3. Patricia Jimenez Kwast, "Maritime Law Enforcement and the Use of Force: Reflections on the Categorisation of Forcible Action at Sea in the Light of the *Guyana/Suriname* Award," *Journal of Conflict & Security Law* 13, no. 1 (2008), pp. 49–91; Derek Lutterbeck, "Between Police and Military: The New Security Agenda and the Rise of Gendarmeries," *Cooperation and Conflict* 39, no. 1 (March 2004), pp. 45–68; Christian Le Mière, "Policing the Waves: Maritime Paramilitaries in the Asia-Pacific," *Survival* 53, no. 1 (February 2011), pp. 133–46.

4. Lyle J. Morris, "Taming the Five Dragons? China Consolidates Its Maritime Law Enforcement Agencies," Jamestown Foundation *China Brief* 13, no. 7 (March 28, 2013); Nong Hong, "China's Newly Formed Coast Guard and Its Implication for Regional Maritime Disputes," *Ocean Yearbook* 28 (2014), pp. 611–30; Ryan D. Martinson, "From Words to Actions: The Creation of the China Coast Guard" (paper, "China as a 'Maritime Power' Conference," CNA Corporation, Arlington, VA, July 28–29, 2015); Lyle J. Goldstein, *Five Dragons Stirring Up the Sea: Challenge and Opportunity in China's Improving Maritime Enforcement Capabilities,* China Maritime Studies 5 (Newport, RI: Naval War College Press, 2010).

5. See "Malaysia Summons China Ambassador over Alleged South China Sea Encroachment," *Straits Times,* March 31, 2016; "Indonesia to Summon Chinese Ambassador over Natuna Islands Standoff," *Jakarta Globe,* March 21, 2016; Allan Macatuno, "Chinese Vessels Ram PH Fishers' Boat at Panatag," Inquirer.net, March 20, 2016, globalnation

.inquirer.net/ and "Border Guard Report Chinese Aggression in Vietnamese Waters through 2015," *Thanh Nien News,* January 8, 2016, www.thanhniennews.com/.

6. Other countries in the region not mentioned here, such as Indonesia, Malaysia, Singapore, and Taiwan, are also undertaking reforms or investing in coast guard fleets. Sam Bateman's landmark study on regional coast guard developments in Southeast Asia provides an important basis of analysis for this study. See Sam Bateman, *Coast Guards: New Forces for Regional Order and Security,* Asia Pacific Issues 65 (Honolulu, HI: East-West Center, 2003).
7. United Nations Convention on the Law of the Sea, 1982 [hereafter UNCLOS], pt. V, p. 40, available at www.un.org/.
8. A "'warship' means a ship belonging to the armed forces of a State bearing the external marks distinguishing such ships of its nationality, under the command of an officer duly commissioned by the government of the State and whose name appears in the appropriate service list or its equivalent, and manned by a crew which is under regular armed forces discipline." Ibid., art. 29, pp. 35–36; Harold J. Kearsley, *Maritime Power and the Twenty-First Century* (Aldershot, U.K.: Dartmouth, 1992), p. 46. See also Raymond D. Bland [Capt., USCG], "Controlling the EEZ: Implications for Naval Force Planning," *Naval War College Review* 32, no. 4 (July/August 1984), pp. 23–30.
9. Bateman's analysis of the history and distinction between constabulary missions of coast guards and navies, or what he calls "lawships and warships," is important in this regard. See Sam Bateman, "Regional Navies and Coastguards: Striking a Balance between 'Lawships' and Warships," *University of Wollongong: Research Online,* 2014, ro.uow.edu.au/. Geoffrey Till provides a useful theoretical model for understanding the areas of jurisdictional divergence and convergence for navies and coast guards. See Geoffrey Till, *Seapower: A Guide for the Twenty-First Century,* 3rd ed. (London: Routledge, 2013), pp. 314–16.
10. Bagus B. T. Saragih, "New Maritime Body Ready to Set Sail," *Jakarta Post,* December 12, 2014, www.thejakartapost.com/.
11. Lyle J. Morris, "Indonesia-China Tensions in the Natuna Sea: Evidence of Naval Efficacy over Coast Guards?," *The Diplomat,* June 28, 2016, thediplomat.com/.
12. Coast guard and government officials and academics in the Philippines, Vietnam, and Japan, interviews by author, September 2015.
13. With the exception of the U.S. Coast Guard, which deployed and fought alongside the U.S. Navy during World War I, World War II, and the Vietnam War, coast guards around the world traditionally have been deployed in a more limited MLE capacity to patrol ports, waterways, and territorial seas that fall under the clear jurisdiction of maritime states. See Stephen Hadley Evans, *The United States Coast Guard, 1790–1915: A Definitive History* (Annapolis, MD: Naval Institute Press, 1949), and Michael R. Adams, *Ocean Station: Operations of the U.S. Coast Guard, 1940–1977* (Eastport, ME: Nor'easter, 2010).
14. "Good seamanship" generally refers to efforts by government and civilian vessels to abide by internationally recognized rules of the road and standards of navigation that seek to avoid accidents at sea and close encounters that could lead to accidents. The Convention on the International Regulations for Preventing Collisions at Sea, October 20, 1972, U.N.T.S. 1050 [hereafter COLREGS], published by the International Maritime Organization in 1976, is the most widely accepted and relied-on set of guidelines in this regard. See U.S. Homeland Security Dept., *Navigation Rules: International—Inland,* COMDTINST M16672.2D (Washington, DC: U.S. Coast Guard, 1972), available at www.navcen.uscg.gov/.
15. This could be changing, however, as regional states bolster their domestic legal systems to incentivize the arresting and jailing of foreign fishermen in violation of domestic laws. See Laura Zhou, "China to Jail Foreign Fishermen Who Ply Trade in Sovereign Waters," *South China Morning Post,* August 3, 2016, www.scmp.com/.
16. UNCLOS, pt. XVI, "General Provisions," art. 301, "Peaceful Uses of the Sea," p. 138.
17. Guyana v. Suriname, ICGJ 370 (PCA 2007) at "Award," p. 142.
18. Ibid., p. 145.

19. Ibid., p. 132. The tribunal referred to previous rulings bearing on the matter, including the M/V *Saiga No. 2 (Saint Vincent and the Grenadines v. Guinea)* judgment, ITLOS Reports, 1999.
20. Guyana v. Suriname, p. 147.
21. Lyle J. Morris, "The Crucial South China Sea Ruling No One Is Talking About," *The Diplomat,* September 9, 2016, thediplomat.com/.
22. In the Matter of the South China Sea Arbitration before an Arbitral Tribunal Constituted under Annex VII to the 1982 United Nations Convention on the Law of the Sea between the Republic of the Philippines and the People's Republic of China (PCA 2013-19), at "Operation of Law Enforcement Vessels in a Dangerous Manner," sect. VII(F), p. 434.
23. Ibid., pp. 424, 435.
24. Chinese maritime affairs scholars, interviews by author, September 28, 2015.
25. The large gap between U.S. Coast Guard (USCG) spending and equivalent spending by other countries may be explained partially by the fact that the U.S. Coast Guard includes outlays in its budget that other countries do not—for example, personnel salaries, retirement benefits, health care costs, and vessel maintenance costs.
26. U.S. Navy, *The PLA Navy: New Capabilities and Missions for the 21st Century* (Washington, DC: Office of Naval Intelligence, 2015), p. 45, available at www.oni.navy.mil/. For CCG personnel estimates, see "State Council Circular on the Main Functions, Internal Bureaucracy and Staffing Provisions of the State Oceanic Administration" [in Chinese], *Central People's Government of the PRC,* June 9, 2013, www.gov.cn/. In all likelihood, these represent conservative estimates for the numbers of vessels and personnel.
27. Ryan D. Martinson, "East Asian Security in the Age of the Chinese Mega-cutter," *Center for International Maritime Security,* July 3, 2015, cimsec.org/. See also Huang Jin, "China Builds Second Mega Coast Guard Ship," *People's Daily Online,* January 11, 2016, en.people.cn/.
28. Ryan D. Martinson, "Curing China's Elephantiasis of the Fleet," Jamestown Foundation *China Brief* 15, no. 10 (May 15, 2015). See also Bradley Perrett, "Avic's AG600 Amphibious Aircraft to South China Sea," *Aviation Week & Space Technology,* July 29, 2016, aviationweek.com/.
29. "State Council Circular."
30. "Hu Calls for Efforts to Build China into Maritime Power," *Xinhua News,* November 8, 2012, news.xinhuanet.com/.
31. "Xi Advocates Efforts to Boost Maritime Power," *Xinhua News,* July 31, 2013.
32. Goldstein, *Five Dragons Stirring Up the Sea.*
33. "Ma Kai Briefs on State Council's Institutional Reform, Functions, Transformation" [in Chinese], *Xinhua News,* March 12, 2013, news.cntv.cn/. The four reorganized were (1) China Marine Surveillance, previously administered by the SOA; (2) the Maritime Police and Border Control, previously administered by the Ministry of Public Security; (3) the Fisheries Law Enforcement Command, previously administered by the Ministry of Agriculture; and (4) the Maritime Antismuggling Police, previously administered by the General Administration of Customs. The Maritime Safety Administration, under the Ministry of Transportation, was not included in the overhaul because its mission is oriented more toward SAR, less toward protecting Chinese territorial sovereignty. See also Morris, "Taming the Five Dragons?"
34. "Ma Kai Briefs."
35. Ibid.
36. "State Council Circular."
37. Morris, "Taming the Five Dragons?"
38. David Tweed, "China's Giant New Coast Guard Ship to Carry Machine Guns, Shells," *Bloomberg Technology,* January 12, 2016, www.bloomberg.com/. For example, CCG 31239 is a decommissioned PLAN frigate with four 37 mm deck-mounted guns, two in the forward part and two in the after part of the vessel. No other coast guard fleet in the region boasts a vessel with such a large array of armaments.
39. Ryan D. Martinson, "Deciphering China's Armed Intrusion near the Senkaku Islands," *The Diplomat,* January 11, 2016, thediplomat.com/. See also Martinson, "From Words to Actions."

40. "The Reconstituted SOA and the China Coast Guard Have Been Set Up" [Zhongzu Hou De Guojia Haiyangju Guapai Zhongguo Haijingju Tongshi Guapai], *Central People's Government of the PRC,* July 22, 2013, www.gov.cn/.
41. USCG official, phone interview by author, September 17, 2015.
42. CCG official, interview by author, September 17, 2015.
43. "China Coast Guard Cracks Down on Extremely Serious Case of Illegal Red Coral Reef Hunting Valued over One Hundred Million RMB" [in Chinese], *People's Daily Online,* May 25, 2015, legal.people.com.cn/.
44. CCG official interview.
45. Ibid.
46. One database that examined forty-five major incidents in the South China Sea between 2010 and 2016 found that "at least one CCG (or other Chinese maritime law enforcement) vessel was involved in 71 percent of incidents." See Center for Strategic and International Studies, "Are Maritime Law Enforcement Forces Destabilizing Asia?," *ChinaPower,* chinapower.csis.org/.
47. Elements of the CCG's rules of engagement (ROEs) were outlined in a recent Chinese television series covering the South China Sea. See "Blue Border Guards" [Lanjiang Weishi], *Traveling around China* [Zoubian Zhongguo], *South China Sea Travel Notes* [Nanhai Jixing] series, episode 8, aired December 31, 2013, by China Central Television (CCTV), available at news.cntv.cn/. For more on changes to China's ROEs, see Lyle J. Morris and Michael S. Chase, "The Tip of the Spear: China's Coast Guard Takes the Lead in East and South China Sea Disputes," in *China, Inside and Out: A Collection of Essays on Domestic and Foreign Policy in the Xi Jinping Era,* ed. Stephan Kistler (Santa Monica, CA: RAND, 2015).
48. "China Coast Guard Trained with Water Cannons near Ayungin—PHL Marine," *GMA News Online,* March 30, 2014, www.gmanetwork.com/; "Vietnamese Boat Sunk in South China Sea," *Sky News,* July 11, 2016, www.skynews.com.au/.
49. "Vietnam Says Chinese Boat Harassed Survey Ship; China Disputes," *Bloomberg News,* June 9, 2011, www.bloomberg.com/.
50. Philippine and Vietnamese naval, coast guard, and government officials, interviews by author, September 15–17, 21, 2015.
51. Ibid. See also Hein Cu, "Vietnamese Fishermen Say Robbed, Injured by Chinese off Paracels," *Thanh Nien News,* June 14, 2015, www.thanhniennews.com/; "Vietnamese Boat Sunk in South China Sea."
52. Sun Li and Fang Lihua, "China Successfully Conducts 'East China Sea Cooperation—2012' Military-Civilian Joint Exercise at Sea for the Protection of Rights," *China National Radio Online,* October 19, 2012, mil.cnr.cn/.
53. Gao Yi, "PLAN South Sea Fleet Normalizes War Readiness Patrols of Nansha, Shapes Effective Interaction Mechanisms with the Fisheries Law Enforcement Command and the China Coast Guard" [Nanhai Jiandui Changtaihua Zhanlue Xunhang Nansha], *Renmin Haijun,* May 17, 2013.
54. "Dongguan Leads the Whole Province Developing Joint Military, Police and Civilian Maritime Drills" [Dongguan Zai Quansheng Lu Xian Kaizhan Junjing Minhai Shang Lianfang Yanxi], *Sina Guangdong,* October 30, 2013, gd.sina.com.cn/.
55. "Chinese Warship Soldiers Point Guns at Vietnamese Supply Boat in Vietnam's Waters," *Tuoi Tre News,* November 27, 2015, www.tuoitrenews.com/.
56. Agreement Between the United States of America and Japan, December 12, 1986, T.I.A.S. 12986, available at www.state.gov/.
57. U.S. Navy, *The PLA Navy,* p. 45. See also Japan Coast Guard, *Vessels and Craft/Aircraft*, (March 2015), pp. 5–6, available at www.kaiho.mlit.go.jp/.
58. Japan Coast Guard, *Vessels and Craft/Aircraft,* pp. 5–6.
59. "Large Patrol Vessel *Akitsushima* (PLH-32) Enters Japan's Coast Guard Service," *Naval Force News—Japan,* November 30, 2013, www.navyrecognition.com/.
60. Japan Coast Guard, *Aircraft* (Tokyo: March 2015), pp. 7–8.
61. Japan Coast Guard, *Organizational Structure* (March 2015), p. 3.

62. Japan Coast Guard, *Aircraft.*
63. Richard J. Samuels, "'New Fighting Power!': Japan's Growing Maritime Capabilities and East Asian Security," *International Security* 32, no. 3 (Winter 2007/2008), p. 95.
64. Japan Coast Guard Law, Law No. 28 (1948), art. 25, trans. Eibun-Horei-Sha Inc. (Tokyo: 2014).
65. Ibid., arts. 18, 20.
66. James Brooke, "Japan Says a Mystery Boat Fired Rockets at Its Ships," *New York Times,* December 25, 2001.
67. Japan was heavily criticized in the Chinese media and by some in the Western media for its unnecessarily "provocative" behavior. One *Guardian* article highlighted the fact that "[f]ifteen [North Korean] survivors were seen clinging to a buoy in heavy seas, but the Japanese ships were ordered to ignore them because of fears that they would use force to resist capture." See Jonathan Watts, "Japan Defiant over Boat Sinking," *The Guardian,* December 23, 2001, www.theguardian.com/.
68. Sonni Efron, "Japan Gives Up Chase of Suspected N. Korean Spy Ships," *Los Angeles Times,* March 25, 1999, articles.latimes.com/.
69. "'Gray Zone Situation' Joint Training MSDF and the JCG for the First Time" [in Japanese], *Asahi News Channel,* July 11, 2015, news .tv-asahi.co.jp/.
70. Japan Coast Guard officials, interview by author, September 23, 2015.
71. Ibid.
72. "Japan Coast Guard to Create 600-Strong Senkaku Unit," *Yomiuri Shimbun,* January 30, 2013.
73. Christopher P. Cavas, "Japan Extends East China Sea Surveillance," *Defense News,* March 17, 2016, www.defensenews.com/. According to Yamamoto, Phase Zero is the deployment of intelligence, surveillance, and reconnaissance assets near the Senkakus. Phase One would be the establishment of a Japan Ground Self-Defense Force rapid-deployment regiment consisting of infantry, mortar, and mechanized companies equipped with new maneuver combat vehicles. Phase Two would be activated should the islands be seized by an enemy, and would consist of an amphibious brigade deployed on naval ships to retake the territory.
74. "China Accuses Japan of Stealing Islands," *Al Jazeera,* September 27, 2012, www.aljazeera .com/.
75. Ian Johnson and Thom Shanker, "Beijing Mixes Messages over Anti-Japan Protests," *New York Times,* September 16, 2012, available at www.nytimes.com/.
76. Kiyoshi Takenaka, "Japan Buys Disputed Islands, China Sends Patrol Ships," *Reuters,* September 11, 2012, www.reuters.com/.
77. Ministry of Foreign Affairs of Japan, "Trends in Chinese Government and Other Vessels in the Waters Surrounding the Senkaku Islands, and Japan's Response," October 5, 2015, www .mofa.go.jp/.
78. China State Oceanic Administration, 海洋要闻 [*News*]. On the basis of SOA reporting, the author identifies the following nineteen CCG hull numbers as being engaged in patrols near the Senkakus: 2101, 2102, 2112, 2113, 2116, 2146, 2149, 2151, 2166, 2305, 2306, 2307, 2308, 2337, 2350, 2401, 2501, 2506, and 31239.
79. "Japan Jet Scrambles 'near Cold War Record,'" *BBC News,* April 16, 2015, www.bbc.com/; "Japan Scrambling Military Jets at Cold War–Level," *NHK,* April 16, 2015, www .newsonjapan.com/.
80. Hugh White, "Asia's Nightmare Scenario: A War in the East China Sea over the Senkakus," *National Interest,* July 5, 2014, nationalinterest .org/.
81. Japan Coast Guard officials interview.
82. The one exception has been some instances of CCG vessels attempting to arrest Chinese-flagged fishing vessels near the Senkakus. See 尖閣諸島沖に中国公船、漁船に立ち入り検査か ["China Coast Guard Vessel Performs On-Site Inspection of Chinese-Flagged Fishing Boat near Senkaku Islands"], *Asahi News,* August 1, 2015.
83. "Japan on Guard after 'Peculiar' Chinese Naval Ship Sails near Islets," *Nikkei Asian Review,* November 24, 2015, asia.nikkei.com/.
84. Mina Pollmann, "Japan's MSDF Will Help Guard Disputed Islands from Chinese Warships," *The Diplomat,* January 14, 2016, thediplomat.com/. According to the article, the Abe administration decided in May 2015 that the Japanese defense minister could

mobilize the JMSDF following a phone conference, should such a contingency arise.

85. David Tweed and James Mayger, "China Sends Japan a 'Don't Meddle' Message via an Ex-navy Ship," *Bloomberg,* December 29, 2015, www.bloomberg.com/.

86. Japan Coast Guard, "Status of Activities by Chinese Government Vessels and Chinese Fishing Vessels in Waters Surrounding the Senkaku Islands," August 26, 2016, available at www.mofa.go.jp/.

87. Kiyoshi Takenaka and Kaori Kaneko, "Japan Fires Water Cannon to Turn Away Taiwan Boats," *Reuters,* September 25, 2012, www.reuters.com/.

88. JCG officials expressed confidence that their coast guard would have enough vessels and personnel to respond to such a Chinese incursion. Japan Coast Guard officials interview.

89. Vietnamese government official in charge of maritime affairs, interview by author, September 21, 2015; Vietnam Ministry of National Defense official, interview by author, November 24, 2015.

90. Socialist Republic of Vietnam, "Joint Circular on Ministry of Defense and Ministry of Transportation," no. 17 (2008).

91. "Japan Coast Guard Vessels and Equipment in High Demand in S.E. Asia, Africa," *Asahi Shimbun,* September 30, 2013, ajw.asahi.com/.

92. Vietnamese government official in charge of maritime affairs interview; Vietnam Ministry of National Defense official interview.

93. Vietnamese government official in charge of maritime affairs interview; Vietnam Ministry of National Defense official interview.

94. *Ordinance on the Vietnam Coast Guard,* no. 03/2008/UBTVQH12 (2008).

95. Author calculations, based in part on U.S. Navy, *The PLA Navy,* p. 45; "Vietnam Coast Guard—Equipment," GlobalSecurity.org.

96. Anh Vu-Huu Tra, "Vietnam to Spend $750 Mil Upgrading Coast Guard and Fishing Fleet," *Thanh Nien News,* July 4, 2014, www.thanhniennews.com/.

97. Mai Nguyen and My Pham, "Japan Pledges Boats to Vietnam as China Dispute Simmers," *Reuters,* January 16, 2017, www.reuters.com/; Ridzwan Rahmat, "Vietnam Coast Guard Receives Two TT400TP-Class Patrol Boats," *IHS Jane's Navy International,* January 26, 2016, www.janes.com/.

98. See "Ảnh hỏa lực đáng gờm trên tàu Cảnh sát biển Việt Nam" ["Photos of Formidable Firepower on board Vietnam Coast Guard Vessels"], *Kiến Thức* [*Knowledge*], April 27, 2016. The source provides photos of the newest and largest cutters in the VCG fleet—CSB 8004, CSB 4038, and CSB 4039—mounted with 23 mm cannon, which are smaller in caliber than those mounted on other coast guard cutters in the region.

99. "Vietnam Coast Guard—Modernization," GlobalSecurity.org.

100. "Vietnam Debuts Fisheries Surveillance Force," *Tuoi Tre News,* April 16, 2014, www.tuoitrenews.com/.

101. Vietnam Ministry of National Defense official interview. The official also pointed out that the VCG does not arrest and transport fishing vessels back to the Vietnamese mainland. The VCG does, however, arrest vessels in violation of other maritime laws, such as those dealing with customs, narcotics, and immigration.

102. "Vietnam Puts Most Advanced Fisheries Surveillance Ship into Operation amid Sea Tension," *Tuoi Tre News,* July 1, 2014, www.tuoitrenews.com/.

103. Vietnamese government official in charge of maritime affairs interview; Vietnam Ministry of National Defense official interview.

104. "Chinese Boats Ready to Raid Vietnamese Ships in Vietnam's Waters," *Tuoi Tre News,* June 25, 2014, www.tuoitrenews.com/.

105. One YouTube video taken by Vietnamese sailors appears to show a Chinese tugboat, *Binhai 285,* ramming a Vietnamese vessel, inflicting heavy damage on the vessel. See "7 tàu Trung Quốc vây ép và đâm tàu Kiểm ngư 951 Việt Nam," YouTube video, June 23, 2014, www.youtube.com/.

106. China, for its part, claims it was acting in self-defense and that Vietnam initiated conflict by "trying to interfere with China's normal operations" and "ramming and laying underwater fishing nets and other debris in the water to sabotage Chinese lawful operations." China also claims Vietnamese vessels had "rammed Chinese vessels 1,547 times." See Ministry of Foreign Affairs of the People's Republic of

China, "Transcript of Special Briefing by PRC Foreign Ministry on June 13, 2014," hosted by Yi Xianliang, deputy director general of the Department of Boundary and Ocean Affairs of the Foreign Ministry, June 14, 2014.

107. A Reuters report speculated that a Chinese trawler caught on video ramming and sinking a Vietnamese fishing boat was owned by the Chinese fishing company Shandong Homey Aquatic Development Co. Ltd. See John Ruwitch, "Satellites and Seafood: China Keeps Fishing Fleet Connected in Disputed Waters," *Reuters,* July 27, 2014, www.reuters.com/. For video footage of the incident, see "Exposed: Chinese Ship Chases, Rams and Sinks Vietnamese Fishing Boat," YouTube video, June 4, 2014, www.youtube.com/.
108. Nguyen Phuong Linh, "Battered and Broke, Vietnam Fishermen Bear Brunt of China Row," *Reuters,* July 27, 2014, www.reuters.com/.
109. Vietnamese government official in charge of maritime affairs interview.
110. Ibid. The Vietnamese Da Nang Border Guard commander in chief reported in January 2016 that Chinese "spy vessels posing as fishing boats entered Vietnam's territorial waters on several occasions in 2015." See "Border Guard Report Chinese Aggression in Vietnamese Waters through 2015," *Thanh Nien News,* January 8, 2016, www.thanhniennews.com/. For more on China's "maritime militia," see Andrew S. Erickson and Conor M. Kennedy, "Tanmen Militia: China's 'Maritime Rights Protection' Vanguard," *National Interest,* May 6, 2015, www.nationalinterest.org/.
111. Truong Son, "New Rule Allows Vietnam Coast Guards to Chase Invading Boats with Weapons," *Thanh Nien News,* September 10, 2015, www.thanhniennews.com/.
112. Emmanuel F. Calairo, *Philippine Coast Guard: A Historical Account of a Maritime Enforcement Agency* (Manila: Philippine Coast Guard, 2008), pp. 44–45.
113. Ibid., p. 45.
114. Ibid.
115. Ibid.
116. Philippine Coast Guard Law, Republic Act 9993 (2009), available at www.lawphil.net/.
117. PCG officials, interview by author, September 16, 2015.
118. Ibid. Notably, no language in the Philippine Coast Guard Law addresses issues related to the use of force or the right to bear arms.
119. Toko Sekiguchi, "Japan to Provide Patrol Vessels to Philippines," *Wall Street Journal,* June 4, 2015, available at www.wsj.com/.
120. PCG commandant, interview by author, September 16, 2015.
121. Republic of the Philippines, Department of Transportation and Communications, "Philippine Coast Guard Organizational Structure," Department Order No. 2014-010 (September 2, 2014), available at www.dotc.gov.ph/.
122. Ibid.
123. PCG officials interview.
124. Philippine Fisheries Code, Republic Act 8550 (1998), available at www.da.gov.ph/.
125. PCG officials interview.
126. Wally Santana, "Taiwan Military Holds Drills amid Row with Manila," *philstar GLOBAL,* May 16, 2013, www.philstar.com/.
127. "Update: Philippine Coast Guard Fires 108 Shots at Taiwanese Fishing Boat, Killing One," *Live Leak,* August 8, 2013, www.liveleak.com/.
128. "Taiwan Flexes Muscles; OFWs Barred from Markets," *Philippine Star,* May 17, 2013, www.philstar.com/.
129. Agence France-Presse, "Philippines Apologizes to Taiwan over Fisherman's Death," Inquirer.net, May 15, 2013, globalnation.inquirer.net/.
130. One of the changes to the ROEs stipulated that PCG officers use rifles or handguns to fire on vessels only for defensive purposes or when fired on first. PCG commandant interview.
131. PCG officials interview.
132. Ibid.
133. Roel Landingin and Kathrin Hille, "Philippines and China in Naval Standoff," *Financial Times,* April 11, 2012, www.ft.com/.
134. Associated Press, "Filipino Warship in Standoff with Chinese Boats," April 11, 2012, *CBS News,* available at www.cbsnews.com/.
135. Philippine academics and naval and coast guard officials, interviews by author, September 16–18, 2015.

136. Philippine academic, interview by author, September 17, 2015.

137. Republic of the Philippines, Department of Energy, "On the Establishment of a National Coast Watch System," Executive Order No. 57 (2011), available at www.doe.gov.ph/; PCG officials interview.

138. "Chinese Patrol Ship Yuzheng-310 Reaches Waters off Scarborough Shoal," *China Times,* April 20, 2012, thechinatimes.com/.

139. When asked why the Philippine government did not send more coast guard assets to assist, one Philippine academic revealed that authoritative sources within the government had informed him that the PCG had no more medium-endurance vessels to send into the area. Philippine academic interview.

140. PCG officials interview.

141. Christine O. Avendaño and D. J. Yap, "Aquino: These Are Our Waters; but President Says Dispute Has to Be Settled Soon," *Philippine Daily Inquirer,* April 24, 2012, available at globalnation.inquirer.net/.

142. LBG, "BFAR Not Keen on Lifting PHL Fishing Ban amid China's Muscle-Flexing," *GMA News Online,* May 24, 2012, www.gmanetwork.com/.

143. Ely Ratner, "Learning the Lessons of Scarborough Reef," *National Interest,* November 21, 2013, nationalinterest.org/.

144. Michaela del Callar, "Chinese Vessels Go in and out of Panatag Shoal—DFA," *GMA News Online,* July 8, 2013, www.gmanetwork.com/.

145. Philip C. Tubeza and T. J. Burgonio, "China Ropes Off Scarborough Shoal," *Philippine Daily Inquirer,* August 3, 2012, available at globalnation.inquirer.net/.

146. Erik De Castro and Roli Ng, "Philippine Ship Dodges China Blockade to Reach South China Sea Outpost," *Reuters,* March 30, 2014, www.reuters.com/; Manuel Mogato, "Philippine Officials Say China Blocked Access to Disputed South China Sea Atoll," *Reuters,* March 2, 2016, www.reuters.com/; Allan Macatuno, "Chinese Vessels Ram PH Fishers' Boat at Panatag," Inquirer.net, March 20, 2016, globalnation.inquirer.net/.

147. According to officials, most resupply missions to Thitu no longer can be carried out by sea and must be accomplished by airdrop. Philippine Navy officials, interviews by author, September 17, 2015.

148. The author thanks Cdr. Anthony Russell, USCG, for his insight on this matter.

149. Frances Mangosing, "PH Proposes to Expand Agreement on Air, Naval Encounters," Inquirer.net, May 27, 2016, globalnation.inquirer.net/.

150. For some interesting ideas on bilateral and multilateral confidence-building and information-sharing measures in the South China Sea, see Nicholas Monacelli [Lt., USCG], "Opportunity for U.S.-Chinese Partnership?," U.S. Naval Institute *Proceedings* 142/7/1,361 (July 2016); Van Jackson et al., "Networked Transparency: Constructing a Common Operational Picture of the South China Sea," *Center for a New American Security,* March 21, 2016, www.cnas.org/; Kuan-Hsiung Wang, "Peaceful Settlement of Disputes in the South China Sea through Fisheries Resources Cooperation and Management," *Maryland Series in Contemporary Asian Studies,* no. 3 (2015); and Yanmei Xie and Shuxian Luo, "Fishing for Ways to De-escalate South China Sea Tensions," *The Diplomat,* August 3, 2015, thediplomat.com/.

151. "North Pacific Coast Guard Forum," *Canadian Coast Guard,* www.ccg-gcc.gc.ca/. See also "The North Pacific Forum: Shaping an Infrastructure for Collaboration," *Second Line of Defense,* April 2, 2011, www.sldinfo.com/.

152. The author notes the existence of the Heads of Asian Coast Guard Agencies Meeting, referred to as HACGAM. While serving an important confidence-building function, it is light on information sharing and joint operations.