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Staff Research Report



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ADIZ Update: Enforcement in the East China Sea, Prospects for the South China Sea, and Implications for the United States

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Introduction

On November 23, 2013, China established an air defense identification zone (ADIZ)* in the East China Sea (see Figure 1). China's ADIZ encompasses the Senkaku Islands, which Japan administers but over which both countries claim sovereignty. On the day of the announcement, U.S. Secretary of State John Kerry said China's ADIZ "constitutes an attempt to change the status quo in the East China Sea."¹ Within days, military aircraft from the United States, Japan, and South Korea flew through China's ADIZ without complying with China's ADIZ regulations.² Since late 2013, international tensions over China's ADIZ have diminished, but the prospect of a new Chinese ADIZ in the South China Sea warrants further study of China's operations in its East China Sea ADIZ to date. This report therefore seeks to assess the extent to which China has enforced[†] its ADIZ in the East China Sea, and to consider the potential conditions and implications of a Chinese ADIZ in the South China Sea.

Update on China's Enforcement of its East China Sea ADIZ

A Bloomberg report from October 2015 suggested China "has quietly stopped seeking to actively enforce [its ADIZ]."³ If true, this may be attributable to political calculations by Chinese authorities. Chinese leaders might not have intended to enforce the ADIZ fully, or even to enforce it at all, but rather might have calculated the establishment of an ADIZ in and of itself would bolster China's position vis-à-vis Japan. According to a January 2015 Congressional Research Service report,

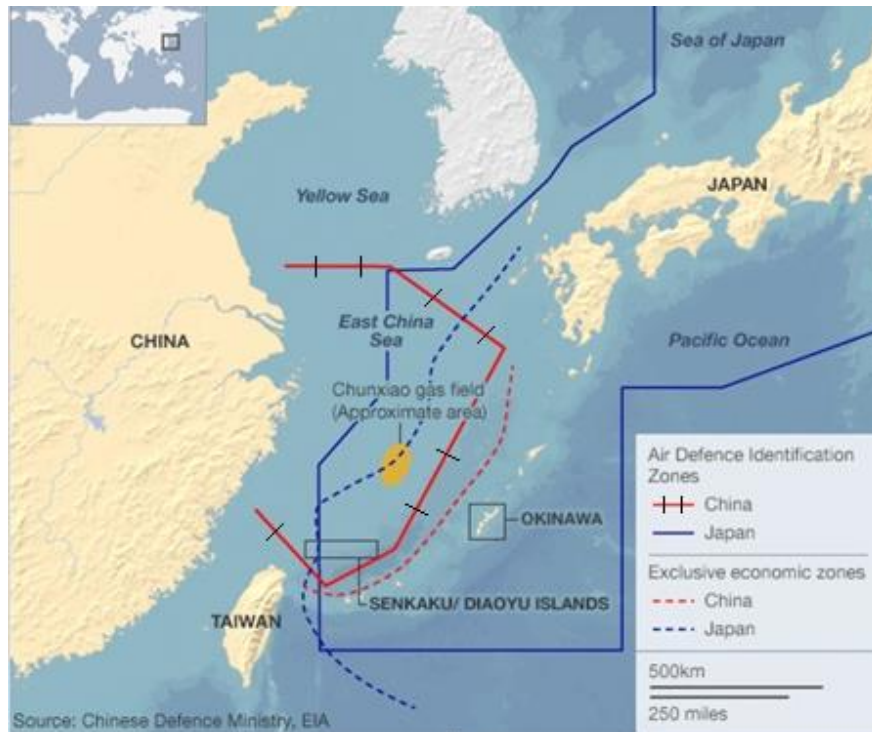
[China] may be seeking to advance its position [in the East China Sea] over the long term after a short spike in tension, leaving a new status quo with the East China Sea ADIZ in place. [China] would acquire strategic advantage by asserting a maximalist position, then seeming to back down, while preserving some incremental gain—akin to a "ratchet" effect. According to this theory, [China] would project a calm image and justify the East China Sea ADIZ as a 'reasonable' step to which foreign nations should not object. If there is an accident, crisis, or loss of life, Beijing could then blame Tokyo, Seoul, Taipei, or Washington.⁴

This explanation of China's intentions aligns with the view, widely held among foreign observers, that China often seeks to assert its interests in territorial disputes by "salami slicing," or, according to Robert Haddick, independent contractor at the U.S. Special Operations Command, "the slow accumulation of small changes, none of which in isolation amounts to a casus belli, but which add up over time to a substantial change in the strategic picture."⁵

* An ADIZ is a publicly declared area, established in international airspace adjacent to a state's national airspace, in which the state requires that civil aircraft provide aircraft identifiers and location. Its purpose is to allow a state the time and space to identify the nature of approaching aircraft prior to their entering national airspace to prepare defensive measures if necessary. China's ADIZ regulations deviate from international norms by seeking to exert control over both civil and state (including military) aircraft, deliberately creating an overlapping area with other countries' ADIZs and disputed territory, and threatening to use "defense emergency measures" against all noncompliant aircraft. Kimberly Hsu, "Air Defense Identification Zone Intended to Provide China Greater Flexibility to Enforce East China Sea Claims," *U.S.-China Economic and Security Review Commission*, January 14, 2014, <http://www.uscc.gov/sites/default/files/Research/China%20ADIZ%20Staff%20Report.pdf>; Xinhua (English edition), "Announcement of the Aircraft Identification Rules for the East China Sea Air Defense Identification Zone of the P.R.C.," November 23, 2013, http://news.xinhuanet.com/english/china/2013-11/23/c_132911634.htm.

[†] This report considers ADIZ "enforcement" to involve the identification and tracking of aircraft in an ADIZ, and the interception of aircraft that do not comply with ADIZ regulations.

Figure 1: China's ADIZ and Claimed Exclusive Economic Zone* in the East China Sea



Source: Adapted from BBC, “Viewpoints: China Air Zone Tensions,” November 28, 2013. <http://www.bbc.com/news/world-asia-25116119>.

Other observers have attributed an assessed lack of ADIZ enforcement to inadequate Chinese military capabilities. Possible shortcomings in China's military capabilities, as well as China's efforts to improve its capabilities in these areas, include the following:

- *Command Structure:* China is moving toward greater jointness in the administration of its ADIZ. China has established a joint operations command center (JOCC) in the East China Sea.⁶ A May 2015 report from *Kanwa Defense Review*—a magazine focused on Chinese defense issues—suggests the JOCC integrates People's Liberation Army (PLA) Air Force, Navy aviation, and Army aviation forces.⁷ Administering the ADIZ through a JOCC would facilitate the integration of radar data and the coordination of interceptors. It is unclear when China established its East China Sea JOCC. China previously may have lacked an integrated command center for the administration of its ADIZ, which may have hampered China's ability to identify, track, and intercept foreign military aircraft.
- *Radar Infrastructure:* China's network of land-based radar systems probably is broadly capable of tracking aircraft in its ADIZ,⁸ although some analysts suggest its effectiveness may suffer from a gap in coverage resulting from a division of radar assets between the PLA Air Force and PLA Navy.⁹ In addition to its land-based radar systems, China has more than a dozen airborne early warning and control (AEW&C) aircraft that could increase the PLA's monitoring capabilities. It is unclear to what extent AEW&C aircraft are integrated into China's ADIZ enforcement operations. A *PLA Daily* report from January 2014 indicated China planned to keep at least one AEW&C aircraft available at all times to support the ADIZ.¹⁰

* According to the UN Convention on the Law of the Sea, an exclusive economic zone is a zone extending up to 200 nautical miles from a state's coastline within which that state can exercise exclusive sovereign rights and jurisdiction over living and nonliving resources, but not full sovereignty. UN Convention on the Law of the Sea, “Part 5: Exclusive Economic Zone.”

Enforcement against Military Aircraft

According to Bonnie Glaser, senior adviser at the Center for Strategic and International Studies (CSIS), “China has never sought to fully enforce [its] ADIZ as it pertains to military aircraft,”¹¹ and public reports suggest China has intercepted only a handful of foreign military flights in its ADIZ. China did not intercept several noncompliant foreign military flights in its ADIZ in the several days following its establishment.¹² Furthermore, some media reports suggest China’s intercepts of several Japanese military aircraft in mid-2014 were the first Chinese intercepts of foreign military aircraft in the ADIZ,¹³ and further authoritative public reports of Chinese intercepts in the ADIZ have not appeared. However, determining the extent to which China has enforced its ADIZ since late 2013 is not possible using open sources, as China does not publish comprehensive data on the extent or frequency of its ADIZ enforcement actions, and foreign militaries do not publicize the extent or frequency of their operations in China’s East China Sea ADIZ and do not regularly comment on China’s operations in the area. Analysts using open sources generally must rely on media reports for information on China’s ADIZ activities, but these reports are not necessarily comprehensive.

Enforcement against Commercial Aircraft

China’s ADIZ apparently has not disrupted commercial air traffic in the East China Sea. Although the Japanese government instructed Japanese commercial airlines not to comply with China’s ADIZ regulations,¹⁴ there have been no reports of Chinese authorities attempting to apply ADIZ regulations to the activities of any planes operated by these carriers. Many airlines, such as Cathay Pacific and Singapore Airlines,¹⁵ have been reported to have cooperated with China’s ADIZ regulations.* On November 29, 2013, a U.S. Department of State spokesperson said the U.S. government “generally expects that U.S. carriers operating internationally will operate consistent with notices to airmen (NOTAMs)† issued by foreign countries,” apparently to include China’s NOTAM containing its ADIZ regulations.¹⁶ This statement was widely reported as amounting to U.S. government direction to U.S. carriers to comply with China’s ADIZ regulations.¹⁷ The Department of State spokesperson said this guidance to U.S. carriers “does not indicate U.S. government acceptance of China’s requirements for operating in the newly declared ADIZ.”¹⁸

Nonetheless, an incident in July 2015 brought some attention to China’s treatment of commercial flights in its ADIZ.

Lao Airlines Flight QV916: A Case of ADIZ Enforcement?

On July 25, 2015, Chinese air traffic controllers turned back Lao Airlines flight QV916 en route from South Korea to Laos as it approached the Chinese mainland over the East China Sea.¹⁹ The flight reportedly was turned back just after it entered China’s East China Sea ADIZ (see Figure 2). Some media reports suggested flight QV916 was turned back for failing to comply with China’s ADIZ regulations, which would make flight QV916 the only commercial flight known to have been turned back by Chinese authorities for this reason.²⁰ However, a Chinese Ministry of National Defense spokesman said the incident was unrelated to China’s ADIZ:

Lao Airlines flight QV916 on route from the Republic of Korea to Laos attempted to fly over China’s airspace on [July 25] without permission from the country’s aviation authority.... China prohibited the flight from entering Chinese airspace in accordance with its air traffic control regulations, which have nothing to do with the [East China Sea] ADIZ.²¹

* The author contacted 14 regional airlines to inquire as to whether they had complied with China’s ADIZ, and whether China’s ADIZ had disrupted their operations in the region. Malaysia Airlines was the only airline to respond to this inquiry. Their response was the following: “Malaysia Airlines’ operations over the region [are] normal and [have] not been affected by the ADIZ. The airline adheres to the procedures as outlined by China’s Notice to Airmen.” Malaysia Airlines, interview with Commission staff, November 23, 2015.

† According to a presentation by an FAA official in April 2010, “[A] NOTAM is a notice or advisory distributed by means of telecommunication containing information concerning the establishment [of], conditions [of], or change in any aeronautical facility, service, procedure, or hazard, the timely knowledge of which is essential to personnel and systems concerned with flight operations.” Gary Prock, “Notice to Airmen (NOTAM)” (Pacific Aviation Directors Workshop, Honolulu, HI, April 13–15, 2010).

Figure 2: Path of Flight QV916 on July 25, 2015



Source: Roncevert Almond, “China’s Air Defense Identification Zone and Lao Airlines Flight QV916,” *Diplomat* (Japan), December 15, 2015. <http://thediplomat.com/2015/12/chinas-air-defense-identification-zone-and-lao-airlines-flight-qv916/>.

By invoking its “air traffic control regulations,” China might have been referring to its responsibility to administer the Shanghai flight information region* (FIR) to explain its decision to reroute flight QV916. Air traffic control authorities in each FIR are charged with maintaining the safety of air traffic in their FIR.²² When flight QV916 was turned back, it was about to enter the Shanghai FIR. If, as China’s Ministry of National Defense spokesman suggested, flight QV916 filed an “interim and vague” flight plan with Chinese air traffic controllers,²³ Chinese authorities could have determined the plane was a risk to the safety of air traffic in their FIR. According to Marc Szezan, a former aviation industry executive currently based at the University of Oxford, “Failure to file a flight plan in accordance with applicable requirements would most likely result in most [air traffic controllers] turning back a flight due to considerations of security and safety, especially in relatively ‘crowded’ air spaces such as the Shanghai FIR.”²⁴ Alternatively, as flight QV916 apparently intended to transit Chinese territorial airspace† en route to Laos, Chinese authorities might have been referring to their unambiguous right to control air traffic in Chinese territorial airspace to reroute the flight.²⁵ In either situation, China would have had a rationale to reroute flight QV916 without invoking its ADIZ regulations.²⁶

If China was not referring to its ADIZ regulations to reroute flight QV916, then there is no publicly reported evidence to suggest China has used its ADIZ to disrupt commercial air traffic.

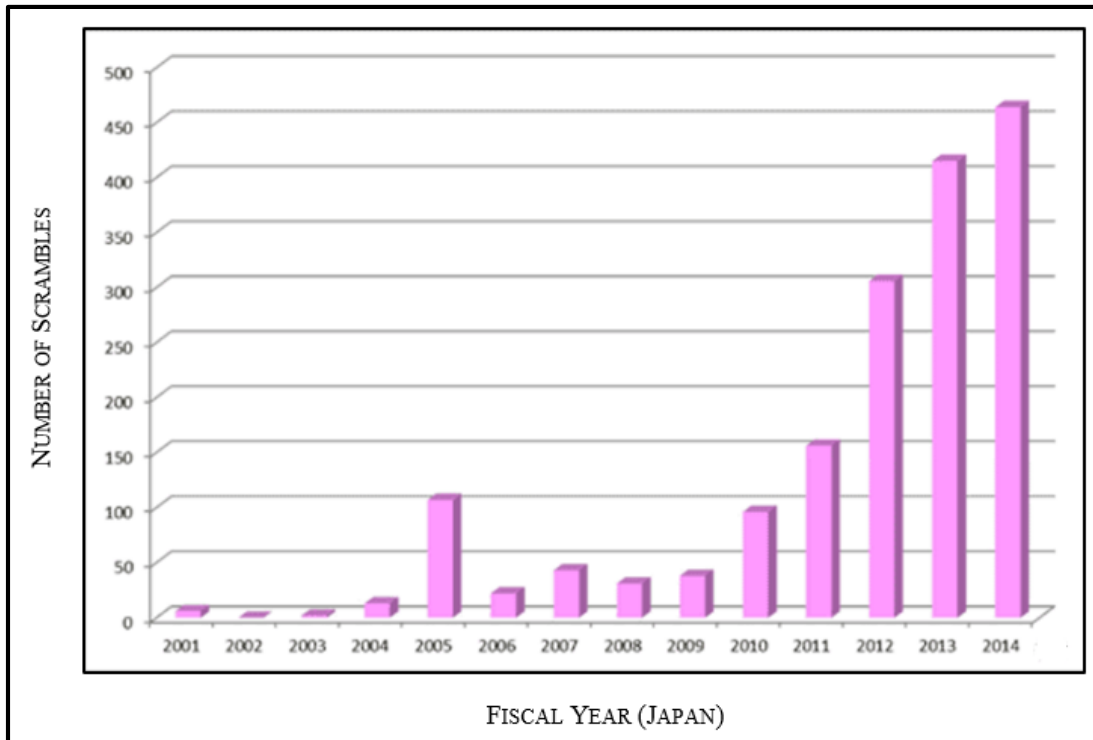
* FIRs are regions defined by the International Civil Aviation Organization that delineate responsibility for maintaining air traffic safety.

† Territorial airspace extends up to 12 nautical miles from a coastal state’s shore. UN Convention on the Law of the Sea, “Part 2: Territorial Sea and Contiguous Zone.”

Other Chinese Activities in East China Sea Airspace

Although public evidence does not strongly indicate whether China has fully enforced its ADIZ since December 2013, China has otherwise greatly increased its military presence over the East China Sea in recent years. These activities often are not explicitly connected to China's ADIZ, but they demonstrate China's claim to authority over airspace in the area, as well as—in some cases—China's claim to sovereignty over the Senkaku Islands. According to Japan's Ministry of Defense, the number of Japanese jet fighter scrambles* against Chinese aircraft—a useful, though imperfect, indicator of Chinese activity in airspace above the East China Sea—rose from about 150 in Japan's fiscal year† 2011 to about 450 in fiscal year 2014 (see Figure 3).²⁷ Notably, the beginning of the recent spike in Japanese intercepts coincided with the Japanese government's purchase of the Senkaku Islands in 2012.²⁸ Other incidents in East China Sea airspace—such as a December 2012 transit by a Chinese government surveillance aircraft in the territorial airspace of the Senkaku Islands,²⁹ and a January 2013 incident in which Japan and China each scrambled jet fighters³⁰—also indicate that airspace tensions began to rise soon after the Japanese government's purchase of the Senkaku Islands, more than one year before the establishment of China's ADIZ. Increased Chinese military activity in the region has also included several exercises in the East China Sea and the Western Pacific, including the first known flights by PLA Air Force planes into the Western Pacific through the Miyako Strait in 2015.[‡]³¹

Figure 3: Japanese Scrambles against Chinese Aircraft, 2001–2014



Source: Ministry of Defense (Japan), *China's Activities Surrounding Japan's Airspace*. http://www.mod.go.jp/e/d_act/ryouku/.

* In military aviation, scrambling refers to directing the immediate takeoff of aircraft from a ground alert condition of readiness to react to a potential air threat.

† Japan's fiscal year begins on April 1.

‡ The Miyako Strait runs between the Japanese islands of Miyako and Okinawa, near the southeastern limit of China's East China Sea ADIZ.

A Potential Chinese ADIZ in the South China Sea

Many observers believe China is expanding its military capabilities in the South China Sea to—among other things—support a future South China Sea ADIZ.*³² Moreover, several statements by Chinese government officials suggest China is considering establishing a South China Sea ADIZ. In December 2013, after China declared its East China Sea ADIZ, China’s then ambassador to the Philippines responded to questions about whether China might declare an ADIZ in the South China Sea, saying China was entitled to decide “where and when to set up the new air identification zone.”³³ In January 2016, a Chinese Ministry of Foreign Affairs spokesperson said,

*As for whether or not China will set up an air defense identification zone [in the South China Sea], the decision will be made based on a full assessment of the security situation and our needs. We believe that the overall situation in the South China Sea is stable. We stand ready to make joint efforts with all relevant parties to safeguard peace and stability of the South China Sea. Meanwhile, we hope that relevant countries would not flex military muscles by sending aircraft and vessels. Instead, they should take concrete actions to uphold peace and stability of the South China Sea together with China.*³⁴

This statement and similar statements by senior Chinese officials³⁵ in recent years suggest China is positioning itself to defend the announcement of a South China Sea ADIZ as a defensive reaction to the actions of other countries.

Predicting an ADIZ in the South China Sea

Timing

Whether and when China will establish an ADIZ in the South China Sea depends on China’s motivations for declaring an ADIZ and its capabilities to enforce an ADIZ.

Should China seek to use the establishment of a South China Sea ADIZ for purely geopolitical purposes—rather than for the practical purposes usually associated with ADIZs—timing will likely depend on Chinese leaders’ cost-benefit analysis of the geostrategic advantages of exerting control over disputed areas against the reputational, diplomatic, and other potential costs it will almost certainly incur due to widespread negative reactions from regional countries and the United States. A range of regional events, such as the pending decision by the Permanent Court of Arbitration on the territorial dispute between China and the Philippines, could influence this cost-benefit analysis.

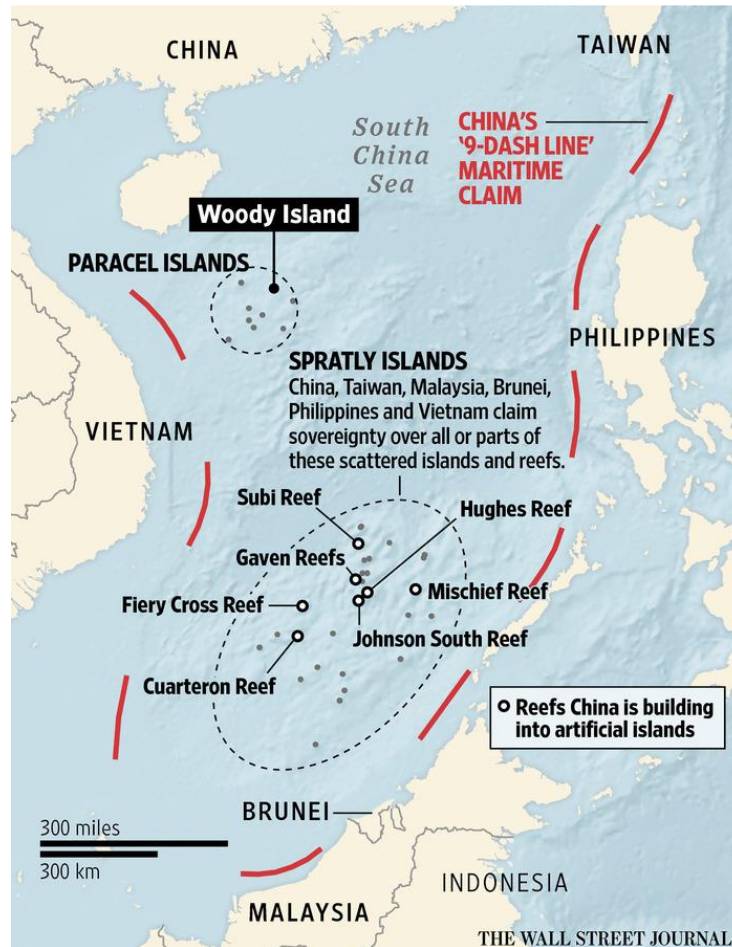
However, if China would seek to enforce an ADIZ, it might calculate that the development of the military capabilities to fully enforce an ADIZ should precede the declaration of an ADIZ. In this scenario, the timing for the declaration of an ADIZ depends on China’s ability to maintain aircraft and intelligence, surveillance, and reconnaissance (ISR) presence in the South China Sea. Observers should look for the completion of runways and support infrastructure on Spratly Islands land features, and eventually the deployment of advanced military aircraft and radar systems to these land features, as signs China is approaching the capability to enforce an ADIZ. Given that China’s aircraft presence and other military capabilities are greater in the Paracel Islands than in the Spratly Islands, it is plausible that China could declare an ADIZ over the Paracel Islands and their surrounding waters that does not include the Spratly Islands and the southern reaches of the South China Sea. In this case, China could later expand a Paracel Islands ADIZ to cover the Spratly Islands and their surrounding waters as its military capabilities improve there, or establish a second ADIZ in the area.

* In April 2015, a Chinese Ministry of Foreign Affairs spokesperson said China’s construction in the South China Sea is intended to “better [safeguard] territorial sovereignty and maritime rights and interests.” However, she also said, “after the construction, the islands and reefs will be able to provide all-round and comprehensive services to meet various civilian demands besides satisfying the need of necessary military defense,” such as “better performing China’s international responsibility and obligation in maritime search and rescue, disaster prevention and mitigation, marine science and research, meteorological observation, environmental protection, navigation safety, fishery production service, and other areas.” Open Source Center, “PRC MOFA: Transcript of PRC FM Spokesman News Conference 9 April 2015,” April 9, 2015. ID: CHO2015040928753011.

Shape

The geographic limits of a notional Chinese ADIZ in the South China Sea could have implications for China's claims there. China's "nine-dash line," its expansive and vague demarcation of its claims in the South China Sea, does not clearly define the limits of these claims (see Figure 4). An ADIZ, by contrast, almost certainly would have absolute geographic limits. If China draws its ADIZ to roughly conform to its maritime claims, as it did in the East China Sea (see Figure 1), China might implicitly clarify the boundaries of its claims.³⁶

Figure 4: China's "Nine-Dash Line" and Selected Occupied Land Features in the South China Sea



Source: Chun Han Wang, "U.S., China Trade Familiar Accusations over South China Sea," *Wall Street Journal*, February 18, 2016. <http://www.wsj.com/articles/u-s-china-trade-familiar-accusations-over-south-china-seas-1455806108>.

Challenges to a South China Sea ADIZ

China would face geographical, environmental, logistical, and operational challenges in seeking to enforce an ADIZ in the South China Sea. China has made significant investments that could address many of these challenges. These efforts, which include the creation and expansion of artificial land features in the Spratly Islands and the construction of runways and support infrastructure on these land features, are rapidly increasing China's ability to enforce an ADIZ in the area. Important challenges to a possible Chinese South China Sea ADIZ include the following:

- *Few Airfields:* Because of the long distances between the Chinese mainland and much of the South China Sea, China most likely would need to use several airfields throughout the South China Sea to host the aircraft necessary to enforce a South China Sea ADIZ.³⁷ China's East China Sea ADIZ, by contrast, is close enough to mainland China that Chinese aircraft can deploy from the Mainland. China has already

constructed runways on Woody Island in the Paracel Islands and Fiery Cross Reef in the Spratly Islands (see Figure 4).³⁸ Both of these runways are long enough to host the fighter aircraft China would use to patrol its ADIZ.³⁹ Media reports suggest China stationed J-11 jet fighters at Woody Island in late 2015, and in February 2016 deployed J-11s and JH-7 strike aircraft there.⁴⁰ China has also reportedly nearly completed construction of runways at Subi Reef and Mischief Reef in the Spratly Islands.⁴¹ Satellite imagery suggests these runways will be long enough to host fighter aircraft.⁴²

- *Limited Radar Infrastructure:* Establishing consistent radar coverage of the entire area of a potential South China Sea ADIZ would be crucial to China's ability to monitor the ADIZ. A February 2016 CSIS report suggested China appears to have installed a high frequency radar system at Cuarteron Reef (see Figure 4), which "would significantly bolster China's ability to monitor surface and air traffic across the southern portion of the South China Sea."⁴³ According to a 2015 CSIS report, China has installed a radar dome at Fiery Cross Reef.⁴⁴ China has already established radar facilities on Woody Island,⁴⁵ and China almost certainly will install radar systems at Subi Reef and Mischief Reef to further expand its monitoring capabilities in the South China Sea. China may have built further radar facilities at Cuarteron Reef, Gaven Reef, Hughes Reef, and Johnson South Reef (see Figure 4).⁴⁶ In addition, AEW&C aircraft could supplement China's land-based radar systems. China's runways at Woody Island and Fiery Cross Reef are long enough to host AEW&C aircraft, and China's runways at Subi Reef and Mischief Reef almost certainly will be long enough to host these aircraft.⁴⁷
- *Harsh Maritime Environment:* Salt water corrosion would degrade aircraft stationed in the South China Sea. According to the FAA, "In a predominately marine environment (with exposure to sea water and salt air), moisture-laden air is considerably more detrimental to an aircraft than it would be if all operations were conducted in a dry climate."⁴⁸ Moreover, "the speed of electrochemical attack is increased in a hot, moist climate," such as the climate of the South China Sea.⁴⁹ The effects of salt water corrosion could require China to shorten aircraft deployment times in the South China Sea.⁵⁰ This could require China to keep larger numbers of aircraft in rotation to maintain aircraft presence in the area. Many of China's indigenously produced planes, such as the J-11, may already have very short operational periods between maintenance periods, even in dry conditions.⁵¹ China could mitigate the effects of salt water corrosion by regularly cleaning aircraft and sheltering them in hangars.⁵²
- *Rough Weather:* Coastal erosion could present a continuous challenge to China's ability to preserve its artificially expanded land features,⁵³ although to prevent erosion China has constructed sea walls at Subi Reef and Mischief Reef, and may have completed its sea wall at Fiery Cross Reef.⁵⁴ In addition, seasonal typhoons could periodically impede China's ability to operate ships and aircraft in the South China Sea.
- *Inadequate Fuel Storage and Transportation:* Creating fuel storage facilities—including facilities for the storage of jet fuel—at its completed and emerging South China Sea airfields would be an important step toward allowing China to station military aircraft there. A December 2015 report from China's local government authority in the Paracel Islands suggests China is building fuel storage facilities on Woody Island in partnership with the state-owned oil company Sinopec, making it possible to hold fuel for facilities and vehicles that would support aircraft.⁵⁵ Media reports disagree about the likely completion date for these fuel facilities, ranging from three months to one year from the beginning of construction in December 2015.⁵⁶ Open source reporting so far has not indicated China has built fuel storage facilities at Subi Reef, Mischief Reef, or Fiery Cross Reef.⁵⁷ Moreover, it is unclear whether China has the ability to transport sufficient quantities of fuel to the Spratly Islands to support aircraft operations there. However, a *PLA Air Force Daily* report in August 2015 indicated China had, for the first time, used a liquids transport ship to move aviation fuel during a 17-day voyage "through island and reef areas."⁵⁸ These ships could allow China to transport fuel to South China Sea land features. Fiery Cross Reef has a harbor deep enough to receive these ships.⁵⁹
- *Limited Aircraft Support Infrastructure:* China would need to create a variety of support structures, such as aircraft shelters and maintenance facilities, on the Spratly Islands land features it occupies for aircraft

deployed there.* Satellite imagery of China’s Spratly Islands land features does not clearly indicate whether China has constructed the support structures necessary to host large numbers of aircraft.† Reports from CSIS suggest China has constructed concrete or cement plants on Subi Reef, Mischief Reef, and Fiery Cross Reef.⁶⁰ These plants could facilitate the construction of aircraft support infrastructure, among other structures.

- *Limited Personnel Support Infrastructure:* If China deploys a regiment of fighter aircraft to any of its current or future Spratly Islands airfields, it most likely also will need to deploy hundreds of logistics, maintenance, and ground crew personnel who typically support PLA air regiments.⁶¹ China currently may have a limited capability to house such large numbers of personnel on its Spratly Islands land features, but China’s continued construction at these land features is increasing the number of personnel China can support there. According to a CNN report from May 2015, China has built “military barracks” on Fiery Cross Reef, and a CSIS report from January 2016 said China has constructed housing facilities at Mischief Reef.⁶² The same report featured a satellite image of a freighter carrying “temporary housing units” into Subi Reef’s lagoon.⁶³ In addition, CSIS has suggested Subi Reef’s older facilities, which pre-date the recent land reclamation campaign, could be capable of hosting up to 200 troops.⁶⁴
- *Underdeveloped Joint Command Structure:* To integrate an array of systems and platforms to enforce an ADIZ, China probably will establish a JOCC in the South China Sea. This center would be responsible for integrating radar data to monitor air traffic and for directing Chinese aircraft to respond to ADIZ violations. One Chinese media report suggests China is creating a joint command structure for coordinating “coastal defense,” “information sharing,” and “maritime law enforcement” among China’s military and civilian government entities in the Paracel Islands.⁶⁵ This structure could be the framework for a larger command that eventually administers a South China Sea ADIZ.

Chinese Actions in South China Sea Airspace: A De Facto ADIZ?

Although China has not declared an ADIZ in the South China Sea, some reports suggest China is attempting to exert control over air traffic in some parts of the South China Sea. Some observers have said China is enforcing a “de facto ADIZ” in the South China Sea.⁶⁶ However, there is no public evidence that China has attempted to exert control over aircraft more than 20 nautical miles from the shores of any Chinese-controlled land feature. This suggests China is most likely asserting a perceived right to control air traffic in and around the claimed territorial airspace of the land features it controls, rather than asserting the broader authority (i.e., the authority an ADIZ with regulations resembling those of its East China Sea ADIZ would give it) to control air traffic over nonterritorial airspace. Several foreign military and civilian flights are known to have received warnings from Chinese authorities not to approach Chinese-occupied South China Sea land features; the incidents involved a U.S. surveillance plane in May 2015, two U.S. B-52 bombers in November 2015, an Australian surveillance plane and a private aircraft carrying a BBC reporter in December 2015, and a Philippines government aircraft in January 2016.⁶⁷

Implications of China’s East China Sea ADIZ for a Potential South China Sea ADIZ

China’s operation of its East China Sea ADIZ has implications for how a potential Chinese South China Sea ADIZ could operate:

- China probably would not seek to use an ADIZ to disrupt commercial air traffic in the South China Sea. Despite directions from the Japanese government to its national carriers not to comply with China’s East

* As Woody Island has reportedly begun to host fighter aircraft, it almost certainly has adequate facilities to host support personnel and to shelter and maintain aircraft.

† China landed three civilian planes on Fiery Cross Reef in January 2016, but because these planes reportedly returned to mainland China within hours of landing at Fiery Cross, these flights do not demonstrate that China has the ability to sustain an aircraft presence in the Spratly Islands. Chun Han Wong, “China Defends Test Flights in South China Sea Area,” *Wall Street Journal*, January 11, 2016. <http://www.wsj.com/articles/china-defends-test-flights-in-south-china-sea-area-1452518556>; Reuters, “China Again Lands Planes on Disputed Island in South China Sea: Xinhua,” January 6, 2016. <http://www.reuters.com/article/us-southchinasea-china-idUSKBN0UK1HT20160106>.

China Sea ADIZ regulations, no enforcement actions by Chinese air traffic control authorities against Japanese commercial aircraft have been reported. Moreover, China would already be facing a hostile international political climate in the wake of the announcement of a South China Sea ADIZ, and probably would seek to avoid the international criticism it would receive for disrupting commercial air traffic.

- Political calculations about the utility of an ADIZ for China's larger goal of asserting sovereignty over disputed territory might lead China not to fully enforce a declared South China Sea ADIZ. Beijing could perceive that the declaration of an ADIZ would change the status quo with respect to South China Sea maritime disputes, even if China does not fully enforce the ADIZ.

A South China Sea ADIZ: Implications for U.S. Security Interests

Several aspects of a potential Chinese ADIZ in the South China Sea have security implications for the United States.

- A Chinese ADIZ in the South China Sea could lead to tense mid-air encounters between U.S. and Chinese aircraft, especially as China has previously demonstrated a willingness to challenge U.S. military aircraft in contested maritime areas, and as senior U.S. Department of Defense officials have indicated a willingness to conduct military flights near Chinese-occupied land features.⁶⁸ China has expressed its opposition to U.S. surveillance flights near Chinese-claimed land features in the South China Sea, such as the May 2015 transit of a U.S. P-8A Poseidon aircraft near Subi Reef, Mischief Reef, and Fiery Cross Reef.⁶⁹ China most likely lacks the ability to intercept U.S. military flights over much of the South China Sea, but an improved ISR network and functional airfields hosting fighter aircraft on Spratly Islands land features could give China this ability.
- A Chinese ADIZ in the South China Sea could complicate operations of state and commercial aircraft in the South China Sea.⁷⁰ A potential Chinese ADIZ would overlap with FIRs in the South China Sea administered by regional countries as delegated by the International Civil Aviation Organization. An attempt by multiple authorities to exert control over air traffic could create uncertainty for pilots in the region. The establishment of a Chinese ADIZ in the South China Sea could also prompt other claimants to South China Sea territory to declare their own ADIZs over South China Sea airspace. This could further complicate the operation of aircraft in the South China Sea by increasing the number of authorities regulating the airspace.⁷¹
- China's development of the capabilities to enforce a South China Sea ADIZ, and its actual establishment of a South China Sea ADIZ, could change the political status quo in the South China Sea. According to Admiral Harry Harris, commander of the U.S. Pacific Command, a fully developed array of Chinese military facilities in the region "creates a mechanism in which China would have de facto control over the South China Sea in any scenario short of war."⁷² This shift could cause an escalation in regional tensions and a negative reaction from China's neighbors, including the Philippines, which has a mutual defense treaty with the United States. This would put pressure on the United States to reassure its allies and partners in the region of the U.S. commitment to ensuring stability in the region.
- Some of the infrastructure and platforms useful for the enforcement of an ADIZ could have military applications in a South China Sea contingency.* If China continues to build these capabilities, it could increasingly complicate the operational planning of U.S. forces passing through the South China Sea.

* In February 2016, China was widely reported to have deployed HQ-9 surface-to-air missiles (SAMs) to Woody Island. These missiles—with a reported range of up to 200 kilometers—could deter foreign aircraft from flying near the Paracel Islands in a perceived violation of China's territorial airspace or future ADIZ in the South China Sea. Moreover, the HQ-9 has associated radar systems that could provide tracking data to Chinese interceptors in the South China Sea. In addition, land-based SAMs would be one of several Chinese platforms useful in the early stages of a military conflict in the region. According to Admiral Scott Swift, commander of the U.S. Pacific Fleet, China twice previously deployed HQ-9s to Woody Island for training. It is unclear whether the recent HQ-9 deployment will be permanent. Hope Hodge Seck, "China Has Deployed Missiles to Disputed Island Before, US Admiral Says," *Military.com*, February 19, 2016. <http://www.military.com/daily-news/2016/02/19/china-deployed-missiles-disputed-island-before-us-admiral-says.html>; BBC, "China

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- As China’s radar infrastructure in the South China Sea grows, so too does its ability to collect intelligence on U.S. forces in the region and to monitor the military and commercial activities of other countries.

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