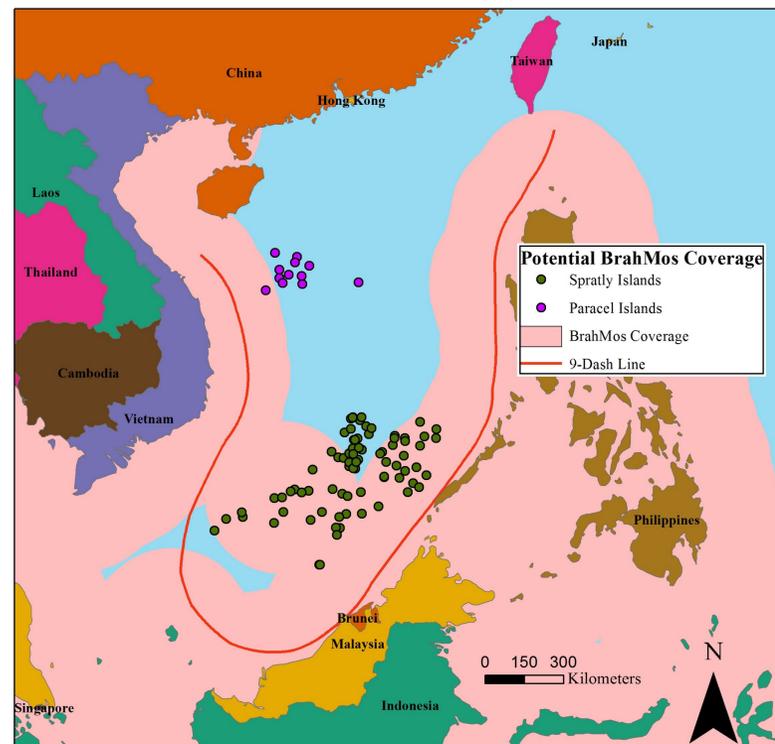


The Limits of Chinese Naval Power

Part 3: Potential Developments & Strategic Environments

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New Delhi Breaks the 9-Dash Line

According to IHS Jane's, India's Ministry of Defense is attempting to market its new BrahMos ASHM, which had an operational range of 292 km to Vietnam, Indonesia, Malaysia, the Philippines, and Thailand. Jointly produced by India and Russia, the BrahMos is the world's most advanced ASHM. Its high speed and evasive maneuvers make it difficult for missile defense systems to successfully target. This map shows where these countries could fire the BrahMos if launched from their shores. The BrahMos could also be deployed on warships, extending its potential range even further. Should Vietnam, Indonesia, Malaysia, the Philippines, and Thailand acquire the BrahMos, it would be extraordinarily difficult for China to send its warships into much of the disputed SCS waters. This would actualize the A2AD strategy of China's maritime neighbors by denying China access to these areas.



Introduction

Asia's strategic security environment is complex and constantly changing. There are numerous actors operating in the region, with similarly diverse political and military motivations. In order to better prepare their countries' for an uncertain future, statesmen will have to prepare for various political and military scenarios. They will often look at allied, neighboring, and/or rival states' defense procurement plans to help in this endeavor.

Thus far, we have only discussed a small part of the total security considerations in Asia. One crucial element of East Asian Security which has yet to be examined in this project is the geopolitical rivalry between India and China. Although this rivalry is often thought of in the context of issues such as the China-India border, competition in the Indian Ocean, Kashmir, the India-Pakistan conflict more broadly, etc., the reality is that India is an important player in Southeast Asia as well. Another actor not yet discussed is North Korea, which has recently been in the news for its ballistic missile and nuclear weapons tests. Local actors such as Japan have become increasingly concerned about the North Korean threat. Thus Japan has invested in its ballistic missile defense capabilities, as well as more offensive weapons for deterrent effect. Japan is currently building a new ASHM with a desired range of 300km. Moreover, the Japanese Ministry of Defense has stated that it is considering asking the United States for missile strike capability against land-based targets, presumably in the form of the Tomahawk Land Attack Missile (range: 1700 km).

This poster will look further at these and other future security concerns that defense officials would do well to consider. The maps here illustrate the following possible developments: 1) if Vietnam, Indonesia, Malaysia, Thailand, and the Philippines acquire BrahMos Anti-Ship Missiles, 2) China, Vietnam, and Taiwan further militarize their bases in the Spratly Islands, 3) China unifies with Taiwan and places its own A2AD systems there, and 4) Japan finalizes development of its new and improved shore-based ASHM system and acquires the Tomahawk missile.

Methodology

The inputs for these maps include the following: a country polygon-vector layer, a Spratly Islands point-vector layer, a Taiwan Air Force base point-vector, the Japan warship "safe zone" buffer from Poster 2, and various data (e.g. ranges) of relevant weapon systems.

For our hypothetical BrahMos map, we select (by attribute) Vietnam, Indonesia, Malaysia, the Philippines, and Thailand from our country polygon-vector and export these countries into a new layer. Using this new polygon-vector, we create a buffer of 292 kilometers (the operational range of the BrahMos) around our five target countries.

To create the island construction map, we start with the Spratly Islands and select (by attribute) islands therein which China, Taiwan, and Vietnam are building facilities with military applications. We then also select (by attribute) islands where airfields have been/are being constructed.

For the hypothetical Chinese A2AD in Taiwan map, we select (by attribute) Taiwan from our country polygon layer and export it into a new layer. We then create buffers around the Taiwan polygon using the Q-9 Surface-to-Air Missile (150 km) and the YJ-62 Anti-Ship Cruise Missile (400 km) ranges. We then buffer around Taiwanese Air Force bases using the JH-7A Fighter Bomber (1333 km) and the J-11 Fighter (1400 km) ranges.

Finally, to illustrate the impact of Japan's potential missile acquisitions, we begin with the country polygon layer and export the Japan polygon. We can create a buffer around this using the range of Japan's new ASHM, or 300 km. For missile strike, we can recycle our Japanese warship "safe zone" polygon from Poster 2, and create a buffer around this reflecting the range of a Tomahawk Land Attack Missile.



Construction in the Spratly Islands

China and its maritime neighbors have long been constructing and militarizing the Spratly Islands. One of the more aggressive developments has been the building of airfields on these islands. As we see from this map, China has already built four airfields on Subi, Mischief, Fiery Cross, and Cuarteron; Vietnam on Spratly Island; and Taiwan on Itu Aba. Although, Malaysia and the Philippines have also started construction on their own claimed islands, their claims are not included in this map because of their more limited capabilities.



Results and Conclusions

Our geospatial analysis has shown that while China may use an A2AD strategy for any future Sino-U.S. conflict, it continues to pursue a power projection strategy in its near seas against its maritime neighbors. We have also explained that because this power projection strategy is generally seen as aggressive and destabilizing, China's neighbors have adopted A2AD strategies of their own in response. As shown in Poster 2, these strategies are quite effective. China has thus adopted a strategy of *suppression of enemy A2AD*. We started to see this on Poster 1 with the Woody Island deployment map, as well as with Chinese airfield construction in the Spratly Islands on this poster. These bases would give China a better position to neutralize the A2AD platforms of its maritime neighbors. In addition to this island base construction, we expect China will expand its precision strike capabilities. In practice, this means China will seek better missile strike systems, aerial refueling tanker aircraft, stealth fighters, and precision bombs.

China is not the only country that is proactive in its acquisitions and weapons development. Feeling threatened by Chinese base acquisition in the Indian Ocean and China's close ties with Pakistan, India is seeking to prevent Chinese hegemony across the Indo-Pacific region. The BrahMos map is a prime example of this trend. India's interest in preventing Chinese hegemony synergizes with the A2AD strategies of China's maritime neighbors. It is therefore not surprising that India, which has developed the world's most dangerous ASHM with Russia, is trying to market this system to Vietnam, Indonesia, Malaysia, the Philippines, and Thailand. At a minimum, Vietnam is quite interested in the BrahMos and India has been willing to loan Vietnam money for A2AD weapons. Given the speed and range of the BrahMos missiles and the elusiveness of the launchers, the acquisition of this system by China's neighbors in the South China Sea would severely impinge China's power projection capabilities in a conflict. It would make much of the water claimed under the 9-Dash Line impossible to defend militarily. If the BrahMos map becomes reality, China will have difficulty establishing regional hegemony and India will have achieved its objective.

There is another elephant in the room in terms of scenarios which would shift the balance of power in the region; that is a Chinese invasion of Taiwan. The A2AD maps in Poster 2 clearly demonstrate that it would be very difficult for China to take Taiwan by force, yet this eventuality is conceivable. The two parties could also be somehow reunited diplomatically. Unification with Taiwan would be extremely beneficial to China's power projection strategy. East Asian security analysts often describe a "first island chain" running from the Kuril Islands in the Northeast, through the main Japanese Islands and the Ryukyus, to Taiwan, and on to the Philippines. These islands could be used to contain China, but should China gain control over Taiwan, it would be less deterred by enemies in this island belt.

China and its maritime neighbors, as well as interested outside powers like India and the U.S., tend to view security in the ECS and SCS through a zero-sum paradigm: any advantage to one side is perceived as a loss by the other. If China thinks it could succeed, it has a strong incentive to seize Taiwan. Meanwhile, Vietnam's acquisition of the BrahMos would be seen as a defensive move by the Vietnamese High Command, but this would be seen as an act of indirect Indian aggression by China. This unfortunately makes an arms race, miscalculation, and kinetic conflict in East Asia increasingly likely.

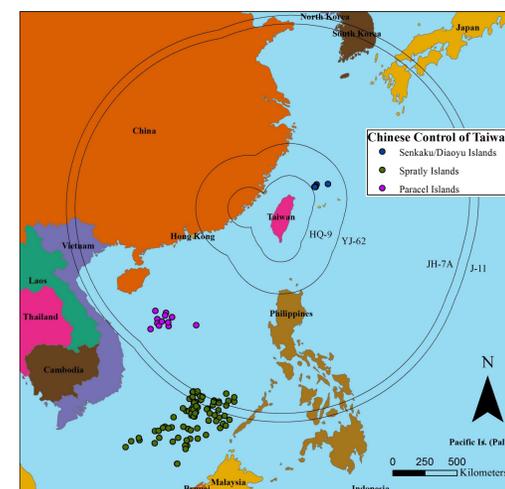
GIS 101/ENV 107: Intro to GIS, 5/10/17

Data from IHS Jane's, IISS, CSIS/GeoEye, Tufts M:\ Drive

Coordinate System: Hong_Kong_1980_UTM_Zone_50N

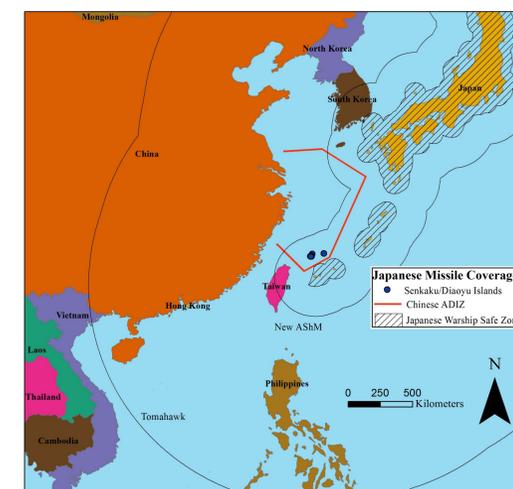
Projection: Transverse Mercator

Tufts



Chinese A2AD on Taiwan

This map envisions a future in which China is able to replace Taiwan's A2AD systems with its own, whether through political or military means. We see here the ranges of China's current A2AD systems, including: the Q-9 Surface-to-Air Missile (150 km), the YJ-62 Anti-Ship Cruise Missile (400 km), the JH-7A Fighter Bomber (1333 km), and the J-11 Fighter (1400 km). These Chinese weapon systems on Taiwan would prove crucial in any future SCS and/or ECS conflict.



Japan's Missile Procurement

This map focuses on future Japanese A2AD acquisitions, namely in the form of its yet-unnamed "New ASHM," currently under development, and U.S. Tomahawk Land Attack Missiles. The ASHM could be fired from almost anywhere in Japan and could be used to deter Chinese warships from attacking the Senkaku/Diaoyu Islands. We again assume that Japanese warships could fire missiles from relative safety underneath their own SAMs and outside the range of Chinese ASHMs. From these safe areas, Japanese warships could launch Tomahawk missiles 1700 kilometers and hit most Chinese air and naval bases, not to mention the Senkaku/Diaoyu.