Regional Macro-Trends in the Development of Military Technology and Defense Science and Technology

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SUMMARY

The most critical long-term trend affecting the East Asian security environment is the emergence of a more politically and militarily assertive China, driven by its economic growth and its sense of entitlement as a leading power in the region. To a certain extent, this emergence will conflict with a similarly rising India, but mostly it will clash with U.S. security interests in maintaining the (U.S.–predominant) status quo in the region. The region may stay reasonably stable for the next decade, but if trends continue, instability could grow in the western Pacific, particularly the South China Sea.
CHINA RISING

The current regional “hotspots” in East Asia (North Korea and Taiwan) may be eclipsed by new hotspots in the maritime, space, and resource arenas. China will, basically, be at the center of any hotspots, whether they arise in the East China Sea, South China Sea, or the Indian Ocean; this will be particularly apropos as its power and political–military goals extend beyond simply “reincorporating” Taiwan. This competition will increasingly play out in the maritime and cyberspace arenas, albeit at a low level of overt hostility (at least at the beginning).

Cyberspace will be a difficult arena for most East Asian nations to play in, mostly due to resource constraints in their defense budgets; the U.S. military, therefore, will probably have to carry most of the weight in this regard. Space is still largely the domain of the United States, and the best China can probably hope to do is develop capabilities for denial. In terms of resources, China will obviously be able to leverage its constantly rising defense budget, which will make it difficult for other countries to compete with it in terms of new arms acquisitions and cutting-edge military R&D activities.

A consequence of rising Chinese military power—an unintended one, at least from the standpoint of Beijing—could be that many Asian-Pacific nations actually draw closer to the United States in an effort to keep it engaged in balancing against China.

North Korea’s nuclear program will continue to be an ongoing source of anxiety and apprehension when it comes to regional security. In recent years, this threat has somewhat subsided, as the Kim regime has tried to reduce its bellicosity; however, this is not likely to last forever, and the Korean nuclear question will not be completely resolved until North Korea is denuclearized. In the meantime, it will certainly be an impetus to improved missile defenses (MD), borne out by growing South Korean efforts to acquire MD (to match Japan’s MD efforts).

Nations in East Asia will likely find the costs of maintaining a status quo-type defense to be rising, but the questions more will be: 1) can they afford it; and 2) will it matter? Partly this is driven by the continually rising Chinese defense budget. There seems to be no limit (at present) to Beijing’s willingness to keep plowing resources into the Chinese military; this will drive a kind of notional “arms race” in which China will increasingly be the one setting the “goal posts” for what constitutes a modern military, in terms of quantity and quality. This will be especially true if China is able to deploy cutting-edge systems like a 5th generation fighter, advanced precision-strike weapons, and a working offensive information warfare capability.

At the same time, it will be increasingly difficult, if not impossible, for most countries in East Asia to keep up with Chinese arms acquisitions and corresponding modernizations and innovations in its military. Japan is unlikely to raise its defense budget beyond its unofficial one percent of GDP limit. Countries like South Korea, India, Singapore, and perhaps even Indonesia and Taiwan will likely continue to increase their military expenditures (in real terms), but it will be insignificant in terms of size and buying power compared to China. This will make it difficult, if not futile, to try and compete with Chinese military modernization, at least quantitatively (and even qualitatively, if China is able to buy more of the same highly capable types of weapons systems).

DISPELLING MISTRUST

There is almost certainly a need to develop new regional mechanisms and norms of behavior and understanding to govern the changing military landscape in East Asia, especially given the growing challenge of dealing with a more politically–militarily assertive China, but it is doubtful that one will arise. The Asia-Pacific region is awash in regional cooperation architectures (the Association of Southeast Asian Nations [ASEAN], ASEAN Regional Forum, ASEAN+3, East Asia Summit, APEC, Shanghai Cooperation Organization, etc.) and it doesn’t necessarily need another one. The Asia-Pacific is a constructivist’s dream—or nightmare. What it needs is some kind of strong multinational forum that can self-regulate and (at least) seek to impose military security solutions (like NATO).

At the moment, however, the strongest security cooperation institutions are bilateral, and almost always with the United States as the key pillar (U.S.–Japan, U.S.–Korea, ANZUS); for political/historical reasons, however, creating a cooperative security organization centered around the United States and involving the democratic states of Asia has not been forthcoming. There are indicators of growing cooperation between some of these states (Australia–Japan, for example), but these are still weak players. In the unlikelihood of any such strong regional security mechanism arising, the United States will continue to play the key role as regional hegemon, attempting to preserve status quo stability.

Countries in the region need to address the key sources of distrust and uncertainty towards their security and military postures, especially the issue of transparency. Issuing regular white papers detailing official
national outlooks on global and regional security and providing in-depth and transparent statements as to force structure, recent arms acquisitions, future acquisition plans, and defense spending would go a long way in creating more openness. Detailed contributions to UN Register on Conventional Arms and also listing military TOEs (table of equipment) would also aid transparency.

GRAND STRATEGIES IN 2020

By 2020, China’s strategic core principles will probably be pretty much what they are today: 1) to engage in an “active defense,” based on forward defense; and 2) to expand and solidify its political–military influence throughout East Asia, particularly within the First Island Chain, so as to buttress its case for sovereign control in the South China Sea and to strengthen its capabilities for anti-access/area denial (A2/AD) around Taiwan. Beijing will also be looking to see if it is strong and capable enough to expand its influence further, perhaps into the Indian Ocean.

U.S. strategic core principles will also likely remain the same: preserving the status quo (with assured U.S. “benign hegemony”), defending democratic and capitalist free-market principles (and therefore promoting the advancement of both in countries throughout the region), the denuclearization of North Korea, the safeguarding of Taiwanese self-determination, freedom of the seas (meaning combating piracy and attempts by nations to unilaterally impose sovereignty in contested areas, such as the South China Sea), and fighting regionally based but globally operative terrorism. Many of these goals will naturally put Washington into direct policy conflicts with China.

Japan will probably continue to follow a confused course, of wanting greater “normalcy” in its security policy, but uncertain—afraid, even—of how to go about it and what its end result may be. Continually constrained funding for its military will also greatly restrict its ability to realize its core strategic principles.

CONCLUSION

There will ultimately be less radical progress and development in the defense technology realm in the Asia-Pacific than some might have expected only a few years ago. Despite the relative wealth of the region, and its growing technological prowess, particularly in the IT area, over the next ten to twenty years most regional militaries will remain overwhelmingly platform-centric, more focused on the acquisition and use of traditional items of military hardware (fighter jets, armored vehicles, artillery systems, submarines, surface ships, etc.), although obviously of more advanced types and capabilities.

Concurrently, doctrine and military organization will probably not change much, and we will likely not see any “revolution in military affairs” taking place in most of the armies in the Asia-Pacific. In particular, I do not visualize most countries adopting any major concepts of network-centric warfare, although some may certainly acquire improved C4ISR infrastructures, and China may more aggressively pursue offensive information warfare as a critical element of its overall war-fighting strategies. Warfare, and the tools for war-fighting, will remain rather familiar.

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