

Taiwan developing Jets and Submarines to boost indigenous Defense Industry and “double-level deterrence” to combat threat from China

President Tsai Ing-wen, who took office in May 2016, has accelerated that development largely in aerospace, submarines and cyber security. “In the current phase, we are committed to building our own military jets and submarines, which, particularly for young engineers and researchers, will create many new job opportunities,” she said. “I trust that a more robust defense industry will not only strengthen our military capabilities, but prove beneficial to our overall industrial development as well.” Tsai also called cyber warfare a “growing threat” and said Taiwan “must be more prepared” for it.

The Ministry of National Defense said on 16th March 2017 in “Taiwan’s Quadrennial Defense Review” (QDR) that the country plans to acquire stealth fighters and vertical/short takeoff and landing (V/STOL) aircraft to strengthen its defense forces, particularly as China has announced it will increase its military budget 7 percent to a reported US\$147 billion this year.

The stealth fighters are necessary to combat threats from China, will help support the navy and ground forces in Taiwan and V/STOL aircraft are necessary for rapid response to potential threats to Taiwan, the report added. Taiwan’s strategy with the improved weaponry will be that of “double-level deterrence” to ensure security. Also included in the QDR are plans to strengthen naval capabilities and missile defense systems. Taiwan purchased two decommissioned frigates, USS

Taylor and the USS Gary, from the U.S. for about NT\$5.5 billion (US\$177.21 million).

Ministry of National Defense (MND) said in a report that Patriot Advanced Capability-3 (PAC-3), has been stationed on Taiwan's east coast, to ensure that Taiwan can defend itself in the event of an attack.

"In addition to posing a military threat to our country, it also has a negative impact on regional stability," the report said, referring to the Chinese military activities. The Taiwanese defense paper further pointed to Japan's move away from its pacifist constitution "to strengthen its armaments and lift a ban on using troops abroad" as likely to have profound consequences on the security situation in the Asia-Pacific and the Taiwan Strait.

Beijing has called Washington's involvement in the dispute the "greatest" threat to the region, accusing the US of displaying a show of force by increasing its military strength and that of its allies in the region.

China Threat

Beijing has laid claim to nearly all of the resource-rich South China Sea, through which an estimated \$5 trillion worth of trade passes each year. An assertive China is investing heavily in developing military power, laying claims on island territories, and the air space over the South China and East China seas. China is building islands and building facilities, including airstrips, on those islands with a scope and pace unprecedented in the region. Beijing considers Taiwan a breakaway province and has never ruled out the use of force to achieve reunification. Chinese President Xi Jinping, was quoted in state media warning Taiwan against independence, saying "no secessionist act will be tolerated" by Beijing.

Taiwan figures in China's long-term strategic planning. It is

part of China's so-called First Island Chain, the innermost defensive ring of islands that China considers essential for national defense. In the long term, controlling the island is in China's interests both to shield the mainland and as a springboard to operate into the Second Island Chain.

Taiwan's Minister of National Defense Yen Ming had once told the national legislature's Foreign Affairs and National Defense Committee the country's military could hold out "at least one month" alone against a Chinese invasion. The widening power imbalance in the Taiwan Strait might embolden Beijing to exercise the military option to resolve the issue. The potential for armed conflict has made the Taiwan Strait one of the world's most worrisome hot spots.

Taiwan faces an adversary in the maritime domain that is close to its territory and equipped with dozens of attack submarines, hundreds of strike aircraft, thousands of offensive missiles, and tens of thousands of sea mines.

RAND report, "Air Defense Options for Taiwan"

RAND report, "Air Defense Options for Taiwan: An Assessment of Relative Costs and Operational Benefits," suggests that Taiwan downsize its fighter fleet and increase investment in SAM systems. "We estimate that Taiwan will spend about US\$22 billion in the next 20 years on the fighter aircraft currently in its fleet with no changes, and another US\$3.3 billion to retrofit the F-16 fleet. That is fairly substantial for a military that has averaged about US\$10.5 billion in total annual spending in recent years," the report says. It was written by Michael J. Lostumbo, David R. Frelinger, James Williams and Barry Wilson.

China's procurement and development of fighter aircraft,

surface-to-surface ballistic missiles, land-attack cruise missiles and bomber aircraft advancements are not slowing, and could pulverize Taiwan's air bases within hours of a war, the report says. None of Taiwan's fighter aircraft would survive or be deployable on runways turned into a lunar landscape.

The report finds that the acquisitions that will turn the tide against Taiwan include current J-11B upgrade (J-16), armed with improved PL-15 air-to-air missiles and active electronically scanned array radar, procurement of Russian Su-35 fighter aircraft, Russian S-400 surface-to-air missile system (400 kilometer range, allowing for coverage for the first time of all of Taiwan island), indigenous development of stealthy fighters that include the J-20 and J-31, and unmanned combat aerial vehicles.

"It is plausible that only fifth-generation fighters, such as the F-22 and JSF [F-35], will be able to counter a numerically superior fourth-generation 'plus' fighter, such as J-16, if operated by a determined and competent pilot," the report says.

Taiwan's Ministry of National Defense (MND) in its 2013 Quadrennial Defense Review (QDR) identified its principal objectives in the maritime domain to be the expansion and improvement of surveillance, early-warning, and naval and air intelligence collection capabilities.

Taiwan and Maritime Domain Awareness in the Western Pacific: Project 2049 report

The Project 2049 Institute in their recent report "Taiwan and Maritime Domain Awareness in the Western Pacific" have analyzed the Taiwan's maritime domain awareness capability.

Taiwan has a large number of land, air, and sea-based radars, located in mainland and offshore islands that provide surveillance of maritime targets, monitoring major Chinese ports across the Taiwan Strait, and early warning of hostile Chinese naval activity, including the preparation for amphibious attacks, blockades or missile strikes.

Taiwan's early-warning and anti-submarine warfare (ASW) aircraft fleets provide long-range maritime awareness and intelligence information. It has a large number of "technical intelligence" (or SIGINT) collection capabilities in the Taiwan Strait and the South China that allow it to (1) track Chinese ships as they enter and exit port; (2) monitor PLAN activities at sea; and (3) obtain PLAN mission orders in advance. Taiwan's HUMINT capabilities in China are the most effective in the world, its human agents that have penetrated the Chinese party, military and security apparatus. The ROC military's C3I system is also considered as being "world-class" providing near-real time common operational picture.

The 2049 report emphasizes the importance of Taiwan's strategic location in the heart of East Asia and the Western Pacific for collecting information and monitoring regional events, No country in the world is better positioned to influence the course of political and security affairs in the Asia-Pacific region than Taiwan.". The U.S. and Taiwan should continue to work toward the ability to better share a common operational picture that would allow them to seamlessly work together as coalition partners during a crisis or conflict, the 2049 report recommends.

China and Russia have signed a US \$3 billion contract for Russian sale of 400-kilometer-range S-400 Triumf road-mobile SAM systems to China. "The China has added another asymmetric capability, together with anti-ship ballistic missiles, which will boost Chinese potential in dealing with the local conflicts in East Asia," says Vasiliy Kashin, a China military specialist at Moscow's Centre for Analysis of Strategies and

Technologies. S-400 will give China more confidence in controlling airspace over Taiwan, and will serve as a critical factor in defeating Taiwan's air defense capabilities during a war, said York Chen, a former senior adviser of Taiwan's National Security Council.

Smaller defense budgets and an overwhelming Chinese conventional force have moved Taiwan toward asymmetrical systems and an anti-access, area denial capability all its own, says Kyle Mizokami. Rather than matching China ship for ship and plane for plane, Taiwan is fielding systems that imperil China's ability to operate in the Taiwan Strait.

One such example is the Hsun Hai, or "Swift Sea" program of small missile corvettes. The catamarans are capable of 38 knots and designed to have a minimal radar signature. Armed with eight Hsiung Feng II and Hsiung Feng III anti-ship missiles, the corvettes have been dubbed "carrier killers" by the Taiwanese media. The first, Tuo River, was commissioned on March 14 and expected to be operational by mid-2015. Twelve ships are planned.

Submarines stand to be a key pillar of Taiwan's asymmetrical approach. "After Taiwan has lost air and sea control, it's the subs that will still be able to attack groups of amphibious landing aircraft," Wang Jyh-perng, RoCN reserve captain told the Asia Times in 2011. In January, Taiwan's navy headquarters announced a 15-year upgrade plan for naval forces. Under the plan, a local shipbuilder has been directed to determine the feasibility of locally built submarines by June of this year.

References and Resources also include:

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