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Time for a Pan-Asian Missile Shield?

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Several Asian-Pacific states are acquiring systems to protect against ballistic missile attacks. In an environment of common threats from missile attack, it is not only increasingly possible technologically, but also increasingly logical for states in the region to cooperate in building a common missile defense shield.

MISSILE DEFENCE is rapidly becoming an acceptable, even welcome, reality in the Asia-Pacific. In December 2007, Japan became the first country in the region to operationally test a missile defence system by shooting down a ballistic missile in flight. And now the new conservative government in South Korea, reversing ten years of hostility towards missile defences, says it is ready to talk to the United States about cooperating on that very issue. In light of such developments, there has never been a better time to consider what only a few years ago would have been infeasible technologically and politically: a joint defence against missile attacks stretching from Japan to Australia.

Proliferating Missile Defences in the Asia-Pacific

As ballistic missiles threats have proliferated throughout the Asia-Pacific, so too have missile defences (MD). Japan is the furthest along in deploying a MD defence architecture. Tokyo is cooperating with the US to create a two-tiered missile defence system, comprising the Sea-based Midcourse Defense (SMD) system, centered on the Aegis/Standard SM-3 missile, and the land-based Patriot PAC-3 missile.

The SMD MD includes improvements to the current Aegis air defence system to enhance its range and reaction time in order to handle exo-atmospheric anti-missile engagements. The SM-3 Block IA missile is an improvement on the SM-2 Block IV missile, with the addition of a third-stage for extended range and a new kinetic warhead for terminal homing and intercept. Japan will incorporate the SMD system into four current and two planned Aegis-equipped air-defense destroyers, and should be fully deployed by 2011. Until then, the US Navy will provide limited missile defence coverage of Japan utilising its own Aegis-class SMD destroyers based in the Sea of Japan.

The land-based Patriot PAC-3 system will provide endo-atmospheric “point-defence” protection

against missile attacks. Japan's Air Self-Defence Force (ASDF) will deploy PAC-3 units to four locations around Japan between 2006 and 2010; three units have already been activated. Altogether, Tokyo is spending at least 1 trillion yen (US\$8.6 billion) – including US\$1 billion for joint research and development – to fully deploy its SMD/Patriot MD design.

Australia and South Korea are also currently acquiring air-warfare destroyers (AWDs) that utilise the Aegis/SM-2 missile combination. While neither country has at yet committed to upgrading to the SM-3 SMD capability, it would not be too difficult to do this retroactively. The Aegis combat system is a modular, open architecture, and for their part, the Australians specifically factored in space and weight considerations for the SM-3 missile into the design and construction of their new AWDs. Additionally, the Koreans are buying PAC-2 GEM+ (Guided Enhanced Missile Plus) systems secondhand from Germany, and may later purchase PAC-3s from the US; over the longer term, Korea plans to develop its own high-altitude interceptor missile.

Taiwan possesses several batteries of PAC-2 GEM+ and PAC-3 Patriot missiles, which have an anti-tactical ballistic missile (ATBM) capability, and it is developing its own ATBM, the Tien Kung III. Taiwan is also setting up a large phased-array radar, based on the huge AN/FPS-115 Pave Paws early-warning system, capable of detecting and tracking incoming missile attacks.

Even Singapore possesses two nascent ATBM systems, the Barak surface-to-air missile deployed on its *Victory*-class corvettes, and the Aster-15 missile, which is outfitting its new *Formidable*-class frigate. While the Barak has a limited missile defence capability, the Aster-15 is a true ATBM. Just as important, the *Formidable*-class frigate is a highly networked system, linked with both other RSN ships and across the Singapore Armed Forces as a whole; consequently, these new frigates constitute a critical node in the third-generation (3G) SAF when it comes to detecting, tracking, and engaging incoming missile threats.

Towards a Cooperative Missile Shield?

Increasingly, the *hardware* exists for a pan-Asian missile defence; what is then needed is the *software* of jointness and interoperability. Even here, considerable progress is being made.

In May 2006, Japan and the US agreed to cooperate more closely in the area of intelligence-gathering and -sharing when it comes to ballistic missile threats and working toward greater coordination of missile defence command and control. As a result, the US and Japan will establish a bilateral joint operations coordination center at Yokota Air Base. Additionally, Japan's ASDF's Air Defence Command will relocate to Yokota AB in order to support coordinated air and missile defence operations. As a practical matter when it comes to increased cooperation on missile defence, the US will deploy a X-Band radar for ballistic missile detection at the ASDF base in Shariki. Japan also intends to utilise its new FPS-XX early warning and tracking radar for missile defence, and to share data with US missile defence operators.

While not a party to this bilateral pact, Australia and South Korea could conceivably tap into missile defence via their Aegis-equipped destroyers. Australian and Korean ships could, at a minimum, be capable of providing early warning and tracking of ballistic missiles and passing this information along to U.S. and Japanese SMD-equipped vessels.

It is worth noting that Australia and the US are currently exploring joint R&D on MD technologies – for example, upgrading and enhancing Australia's indigenously developed Jindalee over-the-horizon radar network (JORN) – currently used to detect aircraft at long range – in order to give it greater range and sensitivity to detect incoming missiles during their early boost phase. Seoul hopes to cooperate with Washington on co-developing new ATBM technologies, with an eye toward integrating its localised point-defence systems into an extended missile defence infrastructure.

Not easy

No one says it will be easy, of course. The hardest hurdle will be overcoming the long-standing reluctance on the part of Asian-Pacific states to cooperate multilaterally on defense and security issues. It is still politically difficult for South Korea to cooperate too closely militarily with Japan, or Japan with Australia, or Singapore with anyone – especially if such a missile shield looks too overtly directed against China. At the same time, the thorny issue of whether or not to defend Taiwan from missile attack cannot be understated.

And yet, in an era of increasing missile threats by rogue states and other aggressors, it is critical that democratic and peace-loving states in the Asia-Pacific see past their differences and embrace their mutual interests in defending each other – and therefore themselves – against such a common threat. Missile defence is here to stay – in which case, better a coordinated, effective missile defence than a disconnected, porous one.

As Ben Franklin once said, “We must all hang together or, most assuredly, we shall all hang separately.”

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