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Asia-Pacific Missile Defense Cooperation and the United States 2004–2005: A Mixed Bag

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KEY FINDINGS

- The United States is structuring its missile defense programs in a manner that encourages industrial and technological participation by friends and allies. In the Asia-Pacific region, Japan and Australia, followed by India, have made the most progress in cooperating with the United States, while South Korea and Taiwan have made lesser progress.
- In 2004, Japan formally agreed to collaborate with the United States in creating a two-tiered missile defense system, comprising the Aegis/Standard SM-3 missile for ship-based, theater-wide missile defense, and the Patriot PAC-3 missile for point defense. Also in 2004, Tokyo agreed to exempt joint missile defense development from its longstanding arms export ban; this exception will permit Japan to jointly develop and produce missile defense systems with the United States and to export Japanese missile defense components.
- Australia formally joined the U.S. missile defense program in July 2004. Canberra plans to spend \$45 million to upgrade its Jindalee over-the-horizon radar network (JORN) in order to give it greater range and sensitivity to detect incoming missiles during their early boost phase. So far, however, Australia has not yet agreed to *acquire* missile defenses.
- India-U.S. missile defense cooperation made encouraging if cautious progress in early 2004, and the Vajpayee government even expressed an interest in acquiring the Patriot PAC-3. This cooperation has stalled following the Congress Party's parliamentary victory in May 2004, however.
- In 2005 and beyond, U.S. and Asia-Pacific cooperation on missile defenses will be complicated by several factors, including budgetary constraints, technology transfer restrictions, proliferation concerns, and, vociferous Chinese opposition to the U.S. transfer of missile defense systems or technologies to Japan and Taiwan.

INTRODUCTION

Missile defense remains a top priority for the U.S. government even after September 11th. In this context, Washington is particularly keen to expand missile defense to include allies and friendly countries, and it is endeavoring to open up missile defense research and development (R&D), production, acquisition and deployment to foreign participation and partnerships. National Security Policy Directive-23 (NSPD-23), one of the Bush administration's leading policy directives on missile defense, states, "Because the threats of the 21st Century also endanger our friends and allies around the world, it is essential that we work together to defend against them. The Defense Department will develop and deploy missile defenses capable of protecting not only the United States and our deployed forces, but also our friends and allies." As such, the Defense Department intends to "structure the missile defense program in a manner that encourages industrial participation by friends and allies...and also promotes international missile defense cooperation."

Foreign partnering in missile defense can take place in several ways, including financial investments, technology-sharing, permitting the use of foreign facilities or territory for early warning or the deployment of interceptors, the purchase or coproduction of U.S. missile defense systems, or the joint development of missile defense systems and subsystems. In this regard, the United States has in recent years reached out to friends and allies in Europe, the Middle East, and the Asia-Pacific to collaborate on building and deploying missile defenses. Important non-Asian partners include the United Kingdom, Denmark, and Israel. In addition, the United States is working multilaterally with NATO on a variety of missile defense-related initiatives.

In the Asia-Pacific region, partnering in the area of missile defense remains, so far at least, a strictly bilateral affair. Japan and Australia, followed by India, have made the most movement forward in pursuing missile defense, and consequently in cooperating with the United States on various missile defense-related programs. Such close friends and allies as South Korea and Taiwan have made lesser progress. Each of these countries has its own unique set of rationales, priorities, strengths, and weaknesses when it comes to working with the United States on missile defense.

JAPAN

Tokyo's interest in missile defense was galvanized in 1998 by North Korea's Taepodong missile test. Japan's 2003 Defense White Paper explicitly noted the danger arising out of the spread of weapons of mass destruction (WMD) and ballistic missiles. North Korea poses the most imminent missile threat to Japan but some in Tokyo also view China as a growing potential concern.

Japan-U.S. cooperation on missile defense goes back to 1999, with the creation of four joint research programs focusing on "Block II" upgrades to the Standard SM-3 ship-launched air-defense missile: a lightweight nose cone, an advanced infrared seeker, a new kinetic energy warhead, and a new booster rocket. These programs were largely low-level technology demonstrator projects, however, never amounting to more than \$50 million a year altogether.

In December 2003, however, Tokyo agreed to move from research to development, and to cooperate with the United States in creating a two-tiered missile defense system,

comprising the Aegis/SM-3 sea-based midcourse defense (SMD) system and the land-based Patriot PAC-3 missile. Plans call for an initial off-the-shelf buy from the United States of missile defense systems, with the concurrent co-development and coproduction of next-generation missile defense systems with the United States. These arrangements were formalized in a joint Memorandum of Understanding (MoU) signed in December 2004.

The SMD missile defense system includes improvements to the current Aegis air defense system to enhance its range and reaction time in order to handle exo-atmospheric anti-missile engagements. This program entails upgrades to the Aegis SPY-1 multifunction phased-array radar and weapons control system for longer-range and higher-altitude search, detection, track, engagement, and control. The SM-3 Block I missile is an improvement on the SM-2 Block IV missile, with the addition of a third-stage for extended range and a Lightweight Exo-Atmospheric Projectile (LEAP) kinetic warhead for terminal homing and intercept. Japan and the United States plan to jointly test the NTW missile defense system in 2005. The land-based Patriot PAC-3 system will provide endo-atmospheric protection. Japan also intends to utilize its new FPS-XX early warning and tracking radar for missile defense, and share such data with U.S. missile defenses.

Japan will incorporate the Aegis/SM-3 upgrade into its four existing (and two planned) Kongo-class destroyers. Japan plans to deploy its first missile defense destroyer in 2007, with full deployment expected in 2011. Until then, the U.S. Navy will provide limited missile defense coverage of Japan utilizing its own upgraded Aegis NTW destroyers based in the Sea of Japan. The U.S. Army could also base Patriot PAC-3 batteries at U.S. bases in Japan.

The decision to move to the development phase is significant for Japan, as it usually conveys a commitment to procurement and deployment. Japan's FY2004 defense budget included approximately \$1 billion to begin missile defense development, along with another \$1.3 billion in FY2005. Altogether, Tokyo will spend up to \$10 billion to fully deploy its NTW/Patriot missile defense system.

Tokyo's decision to sign on to missile defense, and in particular to engage in cooperative missile defense with the United States, has not been without its complications. With the distinction between theater and strategic missile defense now abandoned in favor of a layered, integrated system, Japan has had to reinterpret its ban on collective defense to permit cooperative engagement against missile threats. Japan's missile defense system would be dependent on some U.S. command and control assets, such as for early warning and tracking, while Japanese missile defenses could be used to shoot down missiles intended to attack U.S. territory. Consequently, missile defense ties Japan closer to the United States in defense and security matters. Moreover, Japan is also considering whether to modify its command and control procedures to permit ship captains to authorize interceptor launch.

Japan has also had to relax its longstanding, near-total ban on arms exports in order to permit cooperation with the United States on missile defense. In December 2004, the Koizumi government agreed to exempt joint missile defense development from the arms export ban. This exception will permit Japan to jointly develop and produce missile defense systems with the United States for use by U.S. forces, and to sell Japanese missile defense-related subsystems and components to the United States. Although Tokyo maintains that this partial lifting applies only to missile defense, some see it as the thin edge of the wedge in eventually repealing the entire ban, and in fact, the Koizumi government also stated that it would examine, on a case-by-case basis, the export ban on other jointly developed weapons.

A more serious impediment to continued Japan-U.S. cooperation on missile defense is industrial/technological: Japan's defense industry pins considerable hope on coproducing missile defense systems with the United States, and especially on eventually putting the jointly developed SM-3 Block II missile into production. At present, however, Japanese industrial participation in U.S. missile defense efforts is seen only as a possibility for the future. SM-3 Block II enhancements being conducted in accordance with the 1999 joint research program have *not* been formally accepted by the United States. In fact, the U.S. Defense Department has already rejected the idea of a 21-inch diameter (as opposed to the current 13.5-inch diameter) SM-3 missile long favored by the Japanese, who want a larger and therefore faster and deadlier interceptor. If these Block II programs fail to move forward, Japan's defense industry could reap few benefits from its country's participation in missile defense.

AUSTRALIA

The current Liberal-National government led by Prime Minister John Howard is a strong supporter of missile defense in general and of U.S. missile defense efforts in particular. In January 2004, Howard stated that it would be "recklessly negligent" not to explore ways to defend the country against missile attacks. In June 2004, Defense Minister Robert Hill refused to rule out the eventual deployment of missile interceptors on Australian soil to protect population centers.

Cooperation with the United States on missile defense is seen as part of a much broader effort on the part of Canberra to expand interoperability and military and defense-industrial partnering with the United States, including joint military training with U.S. troops on Australian soil, and Australian participation in the development of the F-35 Joint Strike Fighter. Australia already permits the United States to use its Nurrungar and Pine Gap communications and relay facilities for space-based early warning and detection satellites, such as the Defense Support Program (DSP) and the future Space-Based Infrared System (SBIRS). In December 2003, the Howard government announced its intention to cooperate with the United States on missile defense, and it formally joined the U.S. missile defense program in July 2004, with the signing of an MoU establishing a 25-year framework for joint government-to-government and industry-to-industry cooperation on missile defense R&D and acquisition.

One of the initial areas of cooperation will be joint exploratory R&D on missile defense technologies. A key component of this phase will be studying the prospects for integrating Australia's indigenously developed Jindalee over-the-horizon radar network (JORN) into the U.S. missile defense configuration. Australia plans to spend \$45 million to upgrade and enhance the JORN system—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. Other areas of possible cooperation include jointly upgrading the Pine Gap signals intelligence (SIGINT) facilities for missile defense.

Despite statements of support and current exploratory R&D efforts, Canberra has not yet pledged either to acquire missile defenses or to host ground-based interceptors on Australian territory. Australia is planning to acquire and construct three air warfare destroyers (AWD), which will be based on the U.S. Aegis combat system and the SM-2 Standard surface-to-air missile. Since the Aegis system is being adapted for the U.S. Navy Theater-Wide mid-course missile defense program, it could serve as the eventual basis for

an Australian missile defense system. In March 2004, the U.S. and Royal Australian navies signed a Statement of Principles to expand cooperation on naval surface warfare, one element of which could be improved Australian access to state-of-the-art U.S. technology regarding naval air-defense systems for its AWD program.

The Howard government nevertheless faces considerable obstacles to moving forward on missile defense cooperation with the United States. Perhaps the biggest barrier is financial: Australia has not so far committed itself to any long-term capitalization program to underwrite missile defense; in fact, missile defenses were conspicuously absent from the 2004-2014 Defense Capability Plan. In addition, many local opponents of missile defense argue that the missile threat to Australia is quite low, particularly as North Korea does not yet possess any missiles with sufficient reach to target Australia. At the same time, the Aegis/SM-3 system would not have the range to protect Australia from missile attacks. Overall, U.S.-Australian cooperation on missile defense will probably continue to center around joint R&D on early warning systems.

INDIA

India has also been a strong supporter of U.S. missile defense efforts, and New Delhi defended Washington's decision to withdraw from the Anti-Ballistic Missile (ABM) Treaty in 2001. In addition, India would like to acquire its own missile defenses to protect it against regional missile threats.

Prospects for Indian-U.S. cooperation on missile defense improved greatly following the 2001 lifting of sanctions imposed in 1998 after India's nuclear tests. In May 2002, New Delhi declared its readiness to cooperate with the U.S. on missile defense, and in September 2003, the BJP-led government of Prime Minister A.B. Vajpayee proposed closer collaboration with the United States in missile defense. The Vajpayee government even agreed to sign the Nonproliferation Treaty (NPT) as a precondition for acquiring U.S. missile defense systems and technologies. In March 2003, the U.S.-India Defense Policy Group held a simulated joint missile defense exercise.

Throughout the first half of 2004, India-U.S. progress on missile defense cooperation was encouraging if cautious. In January, Washington and New Delhi agreed to "deepen the dialogue" on a number of strategic issues, including missile defense, with the ultimate aim of pursuing a more collaborative relationship. This initiative is entitled the Next Steps in Strategic Partnership (NSSP) and includes plans to expand cooperation in civilian nuclear and space activities. In March, the two countries held discussions on India possibly joining the U.S. government's Proliferation Security Initiative (PSI), which would give India the authority to combat rogue proliferation activities and additional U.S. support to acquire missile defenses. Also in March, India presented the United States with a wish list of joint defense R&D projects—including electro-optics, encryption, sensors, and jamming technologies—many of which could have missile-defense applications.

This strategic partnership—and the corresponding cooperation on missile defense—appears to be increasingly in doubt, however, following May 2004 elections that replaced the BJP coalition with a new government led by the more anti-U.S. Congress Party. The Congress Party has so far offered no clear position on missile defense, but some of its leftist allies in the governing coalition have expressed opposition to the idea. At a June 2004 meeting of the U.S.-Indian Defense Policy Group, U.S. representatives told their Indian counterparts that New Delhi must be more supportive of U.S. missile defense plans

if India wishes to improve ties with the United States; failure to do so, they added, could jeopardize India-U.S. technology cooperation and possible U.S. arms sales to India.

India under the Vajpayee government had at one time expressed interest in acquiring either the Patriot PAC-3 missile defense system or the Israeli Arrow-2 ABM system, which was jointly developed with the United States. India has already purchased the Israeli Green Pine ballistic missile early warning radar, which is used with the Arrow-2. Israel has also supplied India with airborne early warning (AEW) aircraft. In the wake of the 2004 Indian elections, no final decision has yet been made in Washington or New Delhi on the PAC-3 transfer, and Israel cannot export the Arrow-2 without prior U.S. government approval. Moreover, exporting the Arrow-2 could possibly violate the Missile Technology Control Regime (MTCR), which bans the transfer of any missile system that can carry a 500-kilogram payload more than 350 kilometers. Consequently, India could turn to Russia for missile defenses.

THE REPUBLIC OF KOREA

Seoul has so far placed a very low priority on acquiring missile defenses, and consequently there was practically no progress in 2004 in cooperating with the United States. Overall, South Korea does not appear to regard the North Korean missile threat as very likely. Based on interviews with South Korean officials and experts, a 2002 Atlantic Council report concluded that Seoul does not believe that Pyongyang has “serious plans for aggression.” At the same time, missile defenses were seen as potentially undermining Seoul’s “sunshine” policy of improving relations with the north. If anything, Seoul appears to be much more concerned about the north’s massive (more than 11,000 tubes) artillery threat. In addition, South Korea sees little missile threat from China.

Consequently, South Korea is unlikely to move forward on any kind of missile defense. Seoul has over the past decade been unable to come to a decision to procure the Patriot PAC-2 air-defense system. South Korea’s planned acquisition of several Aegis-equipped KDX-III destroyers could provide the basis for cooperation with the United States on missile defense, based on the NTW concept, but that would likely be several years off. The only missile defenses planned for South Korea are Patriot PAC-3 interceptors that are presently being deployed to U.S. forces on the peninsula.

TAIWAN

Taiwan faces a direct missile threat from China and has consequently expressed a strong interest in missile defense. China has approximately 600 short-range ballistic missiles (SRBMs) presently targeting Taiwan, and this number will probably reach 1,000 by the end of the decade. Taipei is currently in the process of acquiring missile defenses from the United States, including early warning radars, command and control systems, and missile interceptors. It is currently negotiating a buy of the Patriot PAC-3 air defense system, which the United States has already announced its intention to supply to Taiwan. Taiwan also plans to acquire one phased-array ballistic missile early-warning radar—probably the AN/FPS-115 PAVE PAWS—and two missile-warning centers (MWCs); a

second radar and MWC complex is envisioned for later purchase. Taiwan's first missile defenses could be operational as early as 2006, at a cost of approximately \$3 billion to \$4 billion.

Taiwan sees several advantages in engaging in closer direct cooperation with the United States on missile defense. It would promote closer military ties with Washington—including greater intelligence-sharing, improved interoperability, and perhaps even joint command and control—and it would be viewed as a powerful signal of the United States' security commitment to Taiwan. At the same time, such cooperation is seen to be particularly problematic for Washington, due to strong opposition from Beijing.

IMPLICATIONS FOR 2005

Asia-Pacific cooperation with the United States on missile defenses will likely be mixed in 2005 and beyond, even as Washington continues to press missile defenses as a key defense policy. Continued progress can be expected in the cases of Australia and especially Japan, where collaboration is already well advanced. Australia will continue to work with the United States on exploratory R&D, and Tokyo plans to spend \$1.3 billion on missile defense in FY2005 and up to \$10 billion between now and the end of the decade, despite likely cuts in overall defense spending. Taiwan will likely make a decision on purchasing the PAC-3, and it may also request Aegis destroyers for eventual long-range missile defenses. South Korea is unlikely to move forward on missile defense, however, and India-U.S. cooperation appears to have stalled.

Several factors will likely complicate near-term decision-making when it comes to these countries acquiring missile defenses. For example, missile defenses will have to compete with other military programs or service requirements for scarce defense dollars—particularly “legacy” projects such as indigenous fighter jets (Japan's F-2, South Korea's T-50) or armored vehicles (India's Arjun tank). In addition, some potential partners are still waiting to see if the United States genuinely welcomes foreign participation in missile defenses by ensuring access to U.S. technology—such as relaxing U.S. export controls and technology transfer restrictions—and by providing these countries with meaningful industrial participation in missile-defense R&D and production.

Chinese—and to a lesser extent, Pakistani—opposition to missile defense is still quite strong, and this could complicate the transfer of U.S. missile defense systems or technologies to specific countries in the region. China is particularly concerned that missile defenses could undermine its nuclear deterrent, further encourage Taiwan's pro-independence factions, and move Tokyo closer to Taipei (by placing Taiwan under a Japanese missile shield).

Some countries in the Asia-Pacific region are also concerned about the impact of missile defense on WMD proliferation and counter-proliferation. They do not wish to exacerbate the regional missile threat by triggering a countervailing missile buildup intended to overcome missile defenses. North Korea, China, and Pakistan could be prompted to build more missiles, and China might decide to deploy multiple warheads (of course, these actions could happen anyway, regardless of whether or not missile defenses are introduced into the region). China and Pakistan may also refuse to participate in the NPT or MTCR regimes, should they believe that missile defenses are directed against them.

The views expressed in this publication are those of the author(s) and do not necessarily reflect the official policy or position of APCSS, U.S. Pacific Command, the U.S. Department of Defense, or the U.S. Government.

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