

# Anti-Missile Initiative Edges Forward Slowly

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NATO members appear ready to approve deployment of a territorial ballistic missile defense (BMD) network in Europe, although the scope of the European contribution is uncertain.

At a missile defense conference here last week, experts from both sides of the Atlantic agreed that the Phased Adaptive Approach (PAA) adopted by the Obama administration facilitates a change in the NATO view. (3AF, the French aeronautics and astronautics society, organized the event.) The alliance has studied the feasibility of transforming its Active

Layered Theater BMD (ALTBMD) into a system capable of defending European territory, but has so far not embraced the concept of territorial BMD.

The PAA strategy envisions deploying sea-based SM-3 Block 1A interceptors and AN/TYP-2 X-band radars capable of meeting short- and medium-range threats starting next year, and gradually adding land-based SM-3s and incremental upgrades to improve the system's capability as the threat evolves (AW&ST Sept. 21, 2009, p. 22). The objective is for PAA to be able to counter intermediate-range missiles by 2018 and to afford some protection against ICBMs by the end of the decade. The approach is premised on the sharp growth in the quantity and quality of short- and medium-range missiles able to threaten Europe, and the likelihood that long-range missiles capable of reaching the U.S. will not emerge as a real threat until later.

The NATO territorial missile defense plan, known as ALTBMD Capability 2, would enable various short- and medium-range interceptors and sensors to be federated around an improved version of the alliance's Air Command and Control System (ACCS). It could be fielded around 2017-18. "By shifting the focus from long-range to regional short- and medium-range threats, the new U.S. plan better matches the European view," says Patrick Auroy, deputy head of the French armaments agency (DGA).

The consensus at the conference was that the alliance will take advantage of its next summit in Lisbon this fall to endorse BMD. "Parameters have changed since Strasbourg," says Richard Froh, NATO's deputy assistant secretary general for armaments, referring to the last NATO summit in France, when various factors, including the lack of a firm U.S. position, kept missile defense off the agenda. "With the threat increasingly visible, especially from Iran, it's no longer a question of whether BMD is desirable, but how to make it work and affordable."

The U.S. proposes to make PAA the fulcrum of the NATO capability as part of a broad cooperative BMD effort that could ultimately encompass Russia as well as Europe. On Feb. 4, Romania became the third NATO member, after Poland and the Czech Republic, to agree to host interceptor and radar sites. "We are not asking NATO nations to fund [PAA], remarks Frank Rose, deputy assistant secretary of State for defense policy and verification operations. "We are just asking them to fully fund -ALTBMD and ACCS and the modifications needed for Capability 2."

However, with NATO in a funding crisis precipitated by the war in Afghanistan, Rose acknowledges it will be difficult for the alliance to find the money. Indeed, funding shortages have already held up final contracts needed to bring ALTBMD to an initial operating capability, planned for the end of 2010, and NATO heads recently had to work out supplemental funding and economy measures.

In the meantime, the U.S. is quietly encouraging NATO members to contribute components of the BMD network that could generate new high-tech jobs. In addition to the ACCS upgrade, in which NATO allies are already involved, Europe could supply an upper-layer endo-atmospheric interceptor

that would complement the higher-altitude SM-3 along with detection and early warning systems. U.S. companies such as Aerojet are already collaborating with European contractors on certain aspects of the interceptor, which is expected to cost around €2.5 billion (\$3.4 billion).

The U.S. is even holding out the prospect of a European contribution to the PAA. The best opportunities for cooperation lie in later phases of the program, particularly in the area of interceptors and airborne and space-based precision tracking sensors, where technologies remain to be defined, says Douglas Graham, vice president for advanced programs at Lockheed Martin Strategic and Missile Defense Systems. The Netherlands is proposing its Smart L radar for the SM-3, while the contractors participating in France's M51 ballistic missile—Astrium, Safran and SNPE—are looking for a role in the Block IIB missile analogous to that of Japan in the SM-3 Block IIA. The Astrium team aims to fly an experimental kill vehicle within five years.

But funding is not the only stumbling block. Edgar Buckley, senior vice president for European business development at Thales, says poor coordination linked to the dual air and missile defense aspects of ALTBMD has contributed heavily to contracting delays. He recommends shifting responsibility for BMD to Shape (Supreme Headquarters Allied Powers Europe) to resolve the problem.

Moreover, the alliance will have to address information exchange, hardware interoperability and legal aspects, and the lack of a NATO space policy, notes Lt. Gen. F.W. Ploeger, executive director of NATO's Joint Air Power Competence Center.

Military officials fear that further slippage in ALTBMD could make it harder to enlist political support for missile defense. "Even as things currently stand, PAA will be available a good six or seven years before ALTBMD Capability 2, meaning that during that time it will function under U.S. C2 auspices exclusively," notes Beverley Seay, senior vice president of SAIC, which heads the consortium in charge of ALTBMD Capability 2 architecture studies.

So far, only France has made BMD a top priority, and even Paris has yet to translate this ambition into budget reality (AW&ST Jan. 25, p. 31). The French government is funding a beyond-the-horizon radar and early warning satellite demonstrators and plans to have operational versions of these systems in service by 2020. It has also funded research into an upper-layer interceptor derived from the Astor Block 1 and Block 1/NT theater missile defense system.

Any serious European missile defense effort would likely require strong backing from Germany (Europe's second biggest space spender) as well as Italy and the U.K., France's partners in the Aster program. Germany recently joined France and the U.K. in Nimble Titan, a global BMD wargame run by the U.S. Strategic Command. U.K. industry officials here said Britain is observing French moves closely within their expanding bilateral defense cooperation structure.

"It's still early days, but we are seeing the beginning of reflection," says one executive.

One project being discussed is an upgrade to the Samson radar that controls Aster batteries on the U.K.'s Type 45 air defense destroyer. Samson's active array architecture is considered capable of supporting BMD applications. Trials to demonstrate a Samson BMD capability in conjunction with Aegis/SM-3 destroyers could be underway by 2015.