

Europe: Missile Defense in an Evolving Threat Environment

By Ian Williams & Wes Rumbaugh

Since 2009, U.S. deployments of missile defense in Europe have been guided by the European Phased Adaptive Approach (EPAA), which calls for the phased deployments of regional missile defense systems to counter ballistic missile threats to Europe from the Middle East. As Phase 2 of this program nears completion, Europe's strategic environment has shifted since EPAA's inception, and NATO faces a critical decision point on whether its BMD policies and capabilities should be adapted to address these changes.



U.S. Aegis BMD Ship USS Donald Cook (DDG-75) arrives in Rota,

NATO BMD Development: A Model for Integration

European support of the ABM Treaty prevented the emergence of a significant discussion about deploying missile defense to defend the alliance. The Reagan Administration Strategic Defense Initiative sparked limited debate in Europe over the role missile defense could play in providing security from ballistic missiles, culminating in a three day conference in 1985 featuring government officials and defense analysts from Germany, France, Britain, and the United States.

The U.S. withdrawal from the ABM Treaty in 2002 sparked discussion at the Prague Summit in November, which mandated a feasibility study to examine options to protect Alliance

forces against the full range of ballistic missile threats. The 2004 Istanbul Summit issued a directive to accelerate Alliance theater missile defense efforts, which led to the first major contract for the development of a test bed for what would become the Active Layered Theater Ballistic Missile Defense (ALTBMD) system in September 2006. This system was initially designed to protect NATO deployed troops from short-range missiles and includes integration of multiple platforms on both land and sea, supported by a variety of member nations. This test bed was declared operational nine months ahead of schedule in February of 2008, and throughout that year, tests verified

NATO command and control components, paving the way for procurement of an integrated system.

In early 2007, the Bush Administration announced plans to deploy Ground Based Interceptors in Poland and a supporting radar system in the Czech Republic to counter the threat posed by Iran's ballistic missiles. At the Bucharest Summit in April of 2008, NATO leaders agreed that the planned U.S. BMD deployments should be integrated into a comprehensive architecture that would extend coverage to Allied territory. The 2009 Strasbourg Summit emphasized the importance of U.S. contributions to more integrated Alliance ballistic missile defenses.

In September of that year, the Obama Administration cancelled the Bush plan to deploy GBI's to Europe in favor of the European Phased Adaptive Approach, which focused initially on the medium and intermediate-range threat from Iran. Phase 4 of the EPAA, which would have deployed SM3-Block IIB interceptors capable of countering ICBM's threatening the U.S. homeland, was canceled in March 2013.

In March 2010, NATO fielded the Interim Capability Step 1 as part of the development of the ALTBM

project. By June of that year, NATO signed contracts for the second phase of the project, which was to include the capability to conduct real-time theater missile defense battles. In July, the Interim Capability Step 2 passed key tests during the Dutch *Optic Windmill* 2010 military exercise. By the end of 2010, all of the Interim Capability BMD sensors and shooters of NATO nations were successfully linked and tested in concert, allowing the system to be delivered to the Combined Air Operations Center. At the 2010 Lisbon NATO Summit, the Alliance officially recognized the important role BMD plays in the pursuit of its core task of collective defense.

NATO members used this momentum to reach important agreements throughout 2011 to facilitate the development of an integrated ballistic missile defense system as part of EPAA. The United States reached agreements with Poland and Romania to host Aegis Ashore sites, with Turkey to host an X-band radar system to support NATO BMD, and with Spain to port Aegis ships in Rota. The Netherlands upgraded its air defense frigates with long-range radar to further support NATO efforts, and, in early 2012, Germany offered its

Patriot systems as a national contribution to the NATO BMD capability.

Progress continues in the use of missile defense capabilities to protect NATO members against missile threats from the Middle East. In December 2012, Germany, the United States, and the Netherlands deployed Patriot systems to Turkey to protect a NATO ally from missiles launched from Syria. The United States has moved forward in implementing the EPAA by breaking ground on the Aegis Ashore site in Romania in October 2013 and deploying the USS Ross and USS Donald Cook Aegis Destroyers to Rota in 2014. In August 2014, Denmark announced the decision to support NATO BMD with a frigate-based radar system, which a Russian Ambassador later threatened with nuclear strikes. In May 2015, Romania announced that the first interceptors for the Aegis Ashore site in Deveselu would be deployed by the end of the year, and the USS Porter became the third Aegis ship to deploy to Rota. Poland also announced in early 2015 a major purchase of as many as seven Patriot missile defense batteries.



Above: Danish Iver Huitfeldt-class Frigates (potential candidates for BMD radar upgrades)

Above Right: NATO Patriot missile defense mission to Turkey deployment ceremony.

Right: Ground-breaking ceremony, Aegis Ashore site at Deveselu, Romania



THE EUROPEAN PHASED ADAPTIVE APPROACH

The EPAA policy was put in place in 2009 to replace the George W. Bush Administration's plan to place Ground Based Interceptors in Poland and a radar in Czech Republic. The Bush plan would have provided both regional and homeland missile defense capability against long range missiles from Iran. By contrast, the EPAA policy was constructed to provide gradually increasing regional missile defense coverage over a longer period of time. By the end of Phase 3 in 2018, all of NATO Europe will be protected from a limited ballistic missile attack from the Middle East. With the cancellation of Phase 4 in 2013, the EPAA will not provide any defense of the U.S. homeland.

Planned

- 4 Aegis Ballistic Missile Defense Capable Ships
- AN/TPY-2 deployments

Phase 1

- 3 of 4 U.S. BMD ships now stationed in Rota, Spain
- AN/TPY-2 deployed to Turkey

Progress

Phase 2

- Aegis Ashore Site in Deveselu, Romania, equipped with SM-3 IB interceptors

- On track for 2015 completion

Phase 3

- Aegis Ashore Site in Redzikowo, Poland, equipped with SM-3 IIA interceptors by 2018

- Initial funding to be appropriated in FY 2016.

Phase 4 (cancelled)

- Deployment of SM-3 IIB Interceptors for U.S. Homeland Defense

- Program cancelled in 2013

Missile defence: Further Nato capabilities, due by 2018

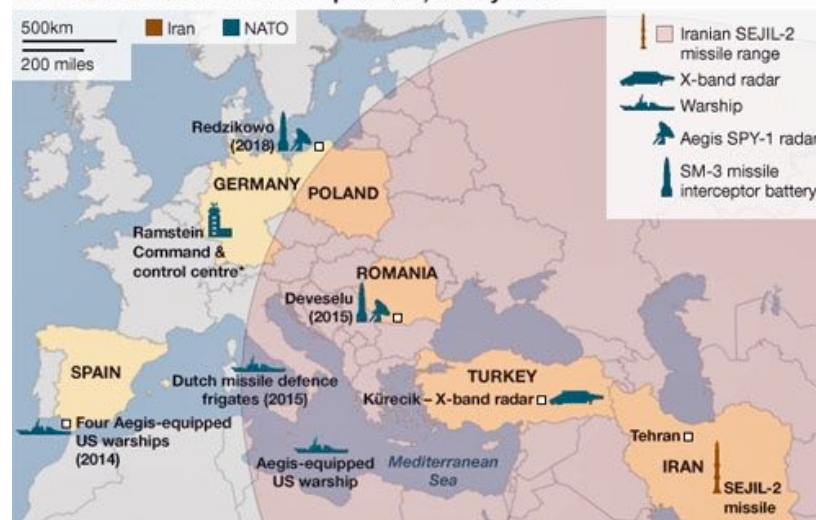


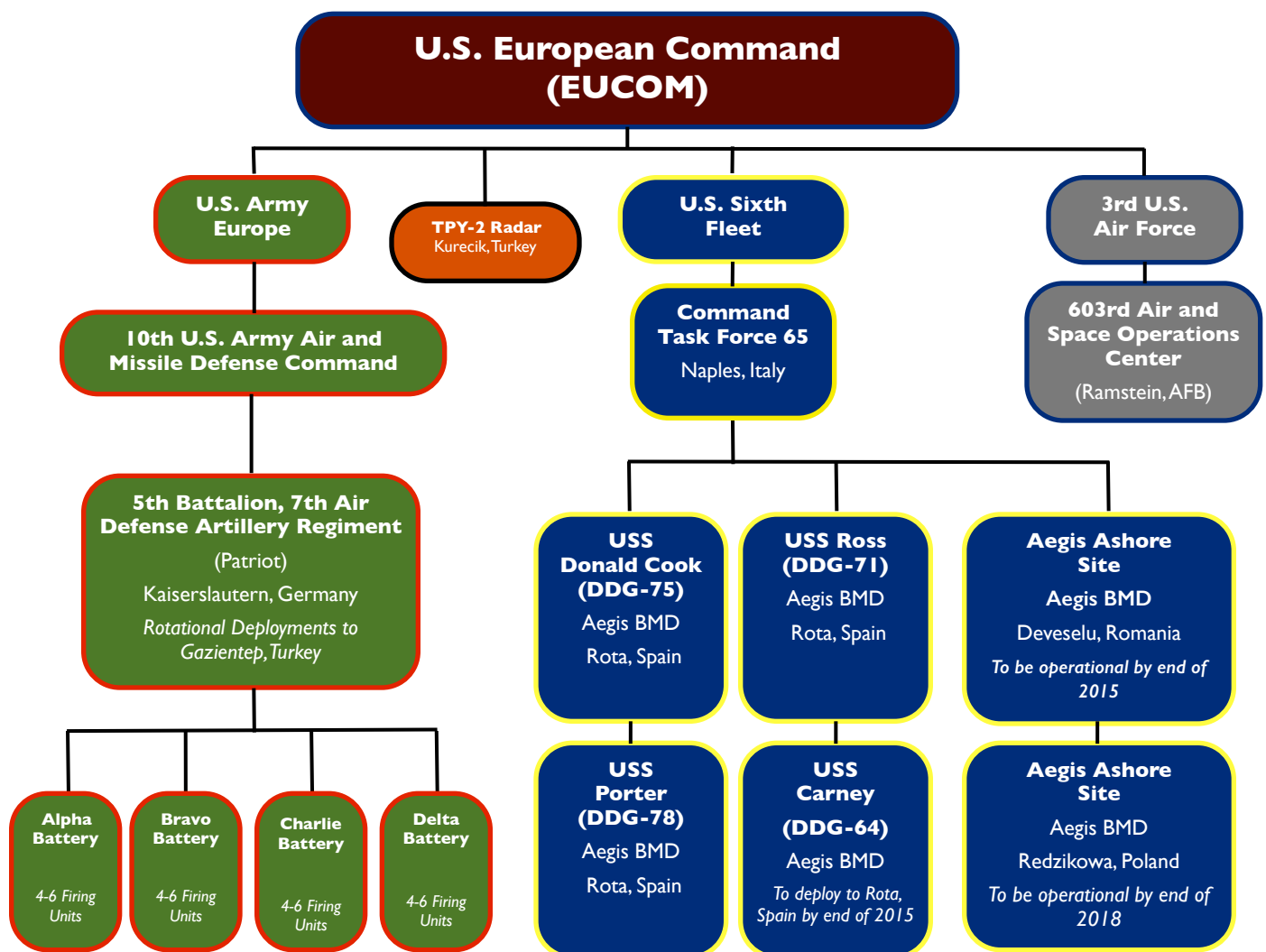
Image courtesy of the Missile Defense Agency

CURRENT U.S. MISSILE DEFENSE DEPLOYMENTS IN EUROPE

The United States deploys a spectrum of missile defense assets in Europe to support NATO efforts. The Patriot batteries in Europe fall under the 10th U.S. Army Air and Missile Defense Command, which is based out of Kaiserslautern, Germany. These units deploy across Europe to support NATO missions such as Operation Active Fence in Turkey and participate in exercises with European nations such as the March 2015 joint training exercise in Poland, which was part of Operation Atlantic Resolve.

The U.S. Navy currently has three Aegis BMD Destroyers (USS Donald Cook (DDG-75), USS Ross (DDG-71), and USS Porter (DDG-78)) deployed to Rota, Spain as part the European Phased Adaptive Approach (EPAA). These ships provide missile defense support to the U.S. 6th Fleet and will be joined by the USS Carney (DDG-64) later this year. The EPAA mandated Aegis Ashore deployments in Poland and Romania will also fall under CTF-65. The U.S. Air Force's contribution to European missile defense is the 603rd Air and Space Operations Center, based out of Ramstein Air Force Base, which falls under the 3rd Air Force and provides command and control support to air, information and space operations in Europe. This element provides important missile warning and tracking data to missile defense units.

U.S. FORCE STRUCTURE



EUROPEAN BMD CAPABILITIES (BY COUNTRY)

Denmark: Hosting Early Warning Radar - Thule, Greenland

France: SAMP/T theatre BMD system

Germany: 12 PAC-3 batteries , 12 PAC-2 batteries, hosts C2BMC Command and Control host - Ramstein AFB, hosts U.S. PAC-3 Batteries with the 10th U.S. Army Air and Missile Defense Command

Greece: 6 PAC-2 GEM batteries

Italy: SAMP/T theatre BMD system

Netherlands: PAC-3 batteries, PAC-2 Batteries, Frigate BMD Radar upgrades

Spain: 6 PAC-2 battery, hosts 4 U.S. Aegis BMD Ships at Rota

Turkey: Hosting U.S. TPY-2 X-Band Radar, Hosting multinational Patriot BMD force

United Kingdom - Early Warning Radar host - Fylingdales, UK

FUTURE SYSTEMS

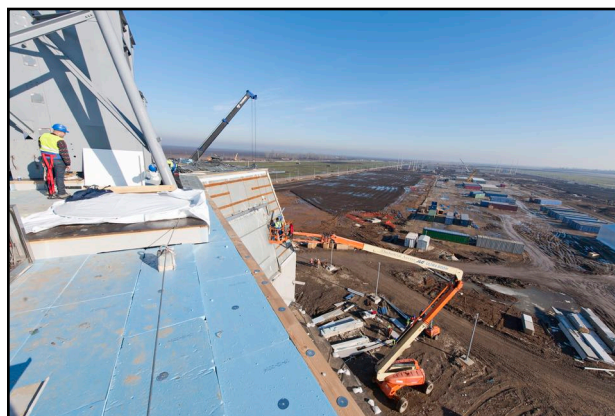
Denmark: Pledged BMD upgrade to frigate radar systems

Germany: Medium Extended Area Defense System (MEADS)

Romania: Aegis Ashore Site, host (to be completed by end of 2015)

Poland: Purchasing 7 Patriot PAC-3 batteries; hosting Aegis Ashore Site (2018)

Turkey: Acquiring lower tier BMD system



Aegis Ashore Construction Site, Deveselu, Romania

About MDAA

MDAA's mission is to make the world safer by advocating for the development and deployment of missile defense systems to defend the United States, its armed forces and its allies against missile threats.

We are a non-partisan membership-based and membership-funded organization that does not advocate on behalf of any specific system, technology, architecture or entity.



Learn More at
www.missiledefenseadvocacy.org