

September 2011	Turkey announces a decision to host a missile defence radar as part of NATO BMD capability.
	Romania and the United States sign an agreement to base interceptors in Romania as part of NATO BMD capability.
	An agreement between Poland and the United States on basing interceptors in Poland enters into force.
	The Netherlands announces plans to upgrade four air-defence frigates with extended long-range radar systems as its national contribution to NATO's BMD capability.
October 2011	Spain and the United States announce an agreement to port US Aegis ships in Rota, Spain, as part of the US contribution to NATO's ballistic missile defence capability.

### NATO-Russia Council Theatre Missile Defence Project

2003	A study is launched under the NRC to assess possible levels of interoperability among theatre missile defence systems of NATO Allies and Russia.
March 2004	An NRC theatre missile defence command post exercise is held in the United States.
March 2005	An NRC theatre missile defence command post exercise is held in the Netherlands.
October 2006	An NRC theatre missile defence command post exercise is held in Russia.
January 2008	An NRC theatre missile defence computer-assisted exercise takes place in Germany.
December 2010	First meeting of the NRC Missile Defence Working Group aimed at assessing decisions taken at the Lisbon Summit and exploring possible way forward for cooperation on ballistic missile defence.
June 2011	NRC defence ministers take stock of the work on missile defence since the 2010 Lisbon summit.



# Missile Defence

Ballistic missiles pose an increasing threat to Allied populations, territory and deployed forces. Over 30 countries have or are acquiring ballistic missiles that could be used to carry not just conventional warheads, but also weapons of mass destruction. The proliferation of these capabilities does not necessarily mean there is an immediate intent to attack NATO, but it does mean that the Alliance has a responsibility to take this into account as part of its mission to protect its populations.

In early 2010, NATO acquired the first phase of an initial capability to protect Alliance forces against ballistic missile threats. At the November 2010 NATO Summit in Lisbon, NATO's leaders decided to develop a ballistic missile defence (BMD) capability to pursue its core task of collective defence. To this end, they decided that the scope of the current Active Layered Theatre Ballistic Missile Defence (ALTBMD) programme's command, control and communication capabilities will be expanded beyond the capability to protect forces to also include NATO European populations and territory. In this context, the US European Phased Adaptive Approach (EPAA) and other possible national contributions were welcomed as a valuable national contribution to the NATO ballistic missile defence architecture.

NATO's work on BMD started in the early 1990s in response to the proliferation of weapons of mass destruction and their delivery systems, including missiles. Initial focus was on protecting deployed NATO troops (Theatre Missile Defence), but work was expanded in 2002 to include considerations of protection of population centres and territory (Territorial Missile Defence).

## Components

The Alliance is conducting three missile defence related activities:

### 1. Active Layered Theatre Ballistic Missile Defence System capability

The aim of this capability is to protect NATO-deployed forces against short- and medium-range ballistic missile threats up to 3,000-kilometer range. In order to manage the risk associated with development of such a complex capability, ALTBMMD will be fielded in several phases.

The completed capability will consist of a multi-layered system of systems, comprising low and high-altitude defences (also called lower- and upper-layer defences), including battle management, communications, command and control and intelligence (BMC3I), early warning sensors, radars and various interceptors. NATO member countries will provide the sensors and weapon systems, while NATO will develop the BMC3I segment and facilitate the integration of all these elements into a coherent and effective architecture.

In 2005, the North Atlantic Council (NAC) established the NATO Active Layered Theatre Ballistic Missile Defence Programme Management Organization (ALTBMMD PMO) to oversee the ALTBMMD Programme. The NATO Consultation, Command and Control Agency (NC3A) and the NATO Air Command and Control System Management Agency (NACMA) are other key NATO bodies involved in the programme.

The initial activities were focused mainly on system engineering and integration work, and on the development of an integration test bed hosted at the NC3A facilities in The Hague, Netherlands. The integration test bed is essential to validate development work.

In early 2010, the first operational capability, called Interim Capability Step 1 (InCa 1), was fielded. It provides military planners with a planning tool to build the most effective defence design for specific scenarios or real deployments. A more robust version of that capability, called Interim Capability Step 2 (InCa 2), was fielded at the end of 2010, and provides shared situational awareness. The complete lower-layer and upper-layer capability will be fielded in the 2018 timeframe.

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For more in-depth information on Missile Defence go to the A-Z index at:  
[www.nato.int](http://www.nato.int)

## 2. BMD for the protection of NATO European territory, populations and forces

A ballistic missile defence feasibility study was launched after the November 2002 Prague Summit to examine options for protecting Alliance forces, territory and populations against the full range of ballistic missile threats. The study was executed by a transatlantic, multinational industry team, which concluded that BMD is technically feasible. The results were approved by Allies at the Riga Summit in November 2006, and they have provided a technical basis for ongoing political and military discussions regarding the desirability of a NATO ballistic missile defence system.

In this context, at the April 2008 Bucharest Summit, the Alliance also considered the technical details and political and military implications of the proposed elements of the US BMD system in Europe. Allied leaders recognized that the planned deployment of European-based US ballistic missile defence assets would help protect Allies, and agreed that this capability should be an integral part of any future NATO-wide BMD architecture.

Options for a comprehensive ballistic missile defence architecture to extend coverage to all Allied territory and populations not otherwise covered by the US system were developed and reviewed at the Bucharest Summit, and the Allies also encouraged Russia to take advantage of US proposals for cooperation on BMD. They also stated their readiness to explore the potential for linking US, NATO and Russian ballistic missile defence systems at an appropriate time.

At the April 2009 Summit in Strasbourg/Kehl, the Allies tasked several NATO senior bodies to provide political, military, technical and financial advice to inform the BMD discussion at the next NATO Summit.

In September 2009, the US announced its European Phased Adaptive Approach for ballistic missile defence in Europe. This new initiative was welcomed by NATO foreign ministers in December 2010.

At the Lisbon Summit in November 2010, NATO heads of state and government decided to develop a BMD capability. They agreed that an expanded theatre missile defence programme could form the command, control and communications backbone of such a system. In Lisbon, France announced plans to develop an early warning system for detection of ballistic missiles.

In March 2011, Allied defence ministers reviewed progress on the consultation, command and control arrangements encompassing roles and responsibilities of relevant NATO bodies during peacetime, crisis and conflict.

In June 2011, NATO defence ministers approved the NATO ballistic missile defence action plan, which provides a comprehensive overview of the key actions and NAC decisions required to implement the NATO BMD capability over the next decade.

In the autumn of 2011, Turkey announced its decision to host a ballistic missile defence radar at Kürecik as an integral part of the NATO BMD capability. Romania and the United States agreed to base SM-3 interceptors at Deveselu airbase in Romania, and a similar basing agreement between the United States and Poland entered into force.

In November 2011, the Netherlands announced plans to upgrade four air-defence frigates with extended long-range missile defence early-warning radars as its national contribution to NATO's ballistic missile defence capability. Finally, Spain and the United States announced an agreement to base four Aegis missile defence ships in Rota, Spain, as part of the US contribution to NATO's BMD capability.



## 3. Missile Defence cooperation with Russia

In 2003, under the auspices of the NATO-Russia Council (NRC), a study was launched to assess possible levels of interoperability among the theatre missile defence systems of NATO Allies and Russia.

Together with this study, several computer-assisted exercises have been held to provide the basis for future improvements to interoperability, and to develop mechanisms and procedures for joint operations in the area of theatre missile defence.

NATO and Russia are also examining possible areas for cooperation on territorial missile defence. At the Lisbon Summit, the NRC agreed to discuss pursuing ballistic missile defence cooperation. They agreed on a joint ballistic missile threat assessment, and to continue dialogue in this area. The NRC would also resume theatre missile defence cooperation. The NRC was tasked to develop a comprehensive joint analysis of the future framework for BMD cooperation.

### Mechanisms

The Defence Policy and Planning Committee (Reinforced) (DPPC(R)) is the senior NATO committee that oversees and coordinates all efforts to develop the NATO ballistic missile defence capability at the political-military level, as well as providing political-military guidance and advice on all issues related to NATO BMD policy.

The Conference of National Armaments Directors (CNAD) is the senior NATO committee that acts as the tasking authority for the theatre missile defence programme. The ALTBMD Programme Management Organization, which comprises a Steering Committee and a Programme Office, directs the programme and reports to the CNAD.

The NRC Missile Defence Working Group is the steering body for NATO-Russia cooperation on BMD.

### Evolution

The key policy document providing the framework for NATO's activities in the area of ballistic missile defence is NATO's 2010 Strategic Concept.

The Strategic Concept recognizes, inter alia, that "the proliferation of nuclear weapons and other weapons of mass destruction and their means of delivery, threatens incalculable consequences for global stability and prosperity. During the next decade, proliferation will be most acute in some of the world's most volatile regions." Therefore, NATO will "develop the capability to defend our

populations and territories against ballistic missile attack as a core element of our collective defence, which contributes to the indivisible security of our Alliance. We will actively seek cooperation on missile defence with Russia and other Euro-Atlantic partners." As a defensive capability, BMD will be one element of a broader response to the threat posed by the proliferation of ballistic missiles.

## Key milestones

### Theatre Missile Defence

May 2001	NATO launches two parallel feasibility studies for a future Alliance theatre missile defence system.
June 2004	At the Istanbul Summit, Allied leaders direct that work on theatre missile defence be taken forward expeditiously.
March 2005	The Alliance approves the establishment of a Programme Management Organization under the auspices of the CNAD.
September 2006	The Alliance awards the first major contract for the development of a test bed for the system.
February 2008	The test bed is opened and declared fully operational nine months ahead of schedule.
Throughout 2008	The system design for the NATO command and control component of the theatre missile defence system is verified through testing with national systems and facilities via the integrated test bed; this paves the way for the procurement of the capability.
March 2010	The Interim Capability (InCa) Step 1 is fielded.
June 2010	NATO signs contracts for the second phase of the interim theatre missile defence capability. This will include the capability to conduct a real-time theatre missile defence battle.
	At the June 2010 meeting of NATO defence ministers, it is agreed that, should Allies decide at the Lisbon Summit to develop a ballistic missile defence capability for NATO which would provide protection to European Allied populations and territory against the increasing threat posed by the proliferation of ballistic missiles, an expanded theatre missile defence programme could form the command, control and communications backbone of such a system. The US EPAA would provide a valuable national contribution to this capability.
July 2010	InCa 2 passes key tests during the Netherlands Air Force Joint Project Optic Windmill 2010 exercise.
December 2010	At the end of 2010, all InCa 2 components – including BMD sensors and shooters from NATO nations – are linked and successfully tested in an 'ensemble' test prior to handover to NATO's military commanders. InCa 2 is subsequently delivered to the Combined Air Operations Centre (CAOC) in Uedem, Germany, as an operational capability.

## Territorial Missile Defence

November 2002	At the Prague Summit, Allied leaders direct that a missile defence feasibility study be launched to examine options for protecting Alliance forces, territory and populations against the full range of ballistic missile threats.
April 2006	The study concludes that ballistic missile defence is technically feasible within the limits and assumptions of the study. The results are approved by NATO's CNAD.
2007	An update of a 2004 Alliance assessment of ballistic missile threat developments is completed.
April 2008	At the Bucharest Summit, Allied leaders agree that the planned deployment of European-based US BMD assets should be an integral part of any future NATO-wide missile defence architecture. They call for options for a comprehensive ballistic missile defence architecture to extend coverage to all Allied territory not otherwise covered by the US system to be prepared in time for NATO's next Summit.
April 2009	At the Strasbourg/Kehl Summit, Allies recognise that a future US contribution of important architectural elements could enhance NATO elaboration of the Alliance effort and judge that ballistic missile threats should be addressed in a prioritised manner that includes consideration of the level of imminence of the threat and the level of acceptable risk.
September 2009	The United States announces its plan for a EPAA.
November 2010	At the Lisbon Summit, the Allies agree to acquire a territorial missile defence capability. They agree that an expanded theatre missile defence programme could form the command, control and communications backbone of such a system. The NRC agrees to discuss pursuing ballistic missile defence cooperation.
	France announces plans to develop an early warning system based on radars and satellites for detection of ballistic missiles.
June 2011	NATO defence ministers approve the NATO Ballistic Missile Defence Action Plan.