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FACT SHEET

U.S. Air Force Fact Sheet

SPACE RADAR

Mission

Space Radar is a system that will provide a range of radar-generated products from space to enhance the nation's Intelligence, Surveillance, and Reconnaissance (ISR) capabilities. The system will consist of a space segment (a constellation of radar satellites) and a ground segment (networked ground stations to control the satellites, process the data, and distribute the products).

The need for such a system has been identified and agreed upon by the Intelligence Community (IC) and the Department of Defense (DoD), and the two communities are now working together to develop and refine the approved system requirements documents to meet national security needs.



Capabilities

Space Radar Integrated Program Office

The Space Radar constellation is envisioned to consist of nine satellites, providing worldwide coverage with a frequent revisit rate. This robust constellation will be integrated into the nation's collection capabilities to significantly enhance our level of persistent surveillance against our adversaries.

Space Radar will provide five types of tailorable products:

- *Synthetic Aperture Radar (SAR) Imagery: grayscale imagery*
- *Surface Moving Target Indication (SMTI): movement detection and characterization*
- *Open Ocean Surveillance (OOS): wide area coverage to detect ships at sea*
- *High Resolution Terrain Information (HRTI): 3-D topographic maps of an area*
- *Geospatial Intelligence Products (GEOINT): advanced products*

Individually, these products will be able to satisfy many users' intelligence requirements. When combined, fused products yield even deeper understanding of targets. Yet Space Radar's truly transformational capability derives from the powerful combination of products and persistence, provided by a responsive, timely, and assured system. The products described above will be available during day or night, and during inclement weather conditions. The users will be able to rapidly update tasking, determine when the collection will occur, and plan operations with the confidence that Space Radar will be there to support them. Central to this capability is the introduction of Electronically Steered Array (ESA) technology onto the satellites, which allows the radar to shift its focus on different targets almost instantaneously, and the creation of a robust, interdependent ground system being developed in partnership with multiple national agencies.

Space radar will profoundly change the nature of global persistent ISR, and its effects will be widespread. It will significantly advance intelligence analysts' abilities to solve hard intelligence problems, enable situational understanding throughout the full spectrum of conflict, and enhance global deterrence through the mere threat of observation. Space Radar is a joint effort of great benefit to the National Intelligence, Military, and Civil user communities.

Background

In response to the FY01 Department of Defense (DoD) Authorization Conference Report, the Air Force was task to lead a multi-service, multi-agency effort to bring together requirements for both the DoD and Intelligence Community (IC) users. Lockheed Martin and Northrop Grumman were awarded Space Radar (SR) study contracts in April 2004 with the focus of identifying and solving risk areas so the program could successfully enter the design and development phase. This dual prime contractor approach was chosen to maximize the benefits of the competitive process and better evaluate multiple architecture concepts, related technologies and concepts of operations.

In January 2005, The Secretary of Defense and the Director of Central Intelligence together signed a letter appointing the SR program as the single future space radar program for the nation. This one program is to be responsible for meeting the specific requirements of both the DoD and IC or stakeholders.

The Air Force announced a change to the structure and focus of the SR Program Office on 28 January 2005 to facilitate better communication and cooperation between the IC and DoD. Brig. Gen. John "Tom" Sheridan was named program executive officer and system program director, leading the Space Radar program office from Chantilly, Virginia.

During a congressional hearing on March 9, 2005, Peter Teets, undersecretary of the Air Force for space, defended the Space Radar program by stating, "We have restructured the Space Radar program in a way that will allow us to move forward in a team sense - the military community and the intelligence community - to use the same satellites for warfighting information as well as intelligence analysis..." Mr. Teets also directed the name change from Space Based Radar to Space Radar. The new Space Radar name was coined to pick up on the fact that there is a new integrated responsibility and the name of the "JPO" --Joint Program Office -- was also changed to "IPO"--an integrated program office -- The IPO crosses departmental and agency boundaries to make sure all stakeholder needs are addressed and understood.

A jointly approved Initial Capabilities Document (ICD) was released on 15 February 2006.

Between 2006 and 2008 the program's requirements will be taken through both the DoD's Joint Requirements Oversight Council [JROC] and the IC's Mission Requirements Board [MRB] to get validation on both of their parts. One of the toughest challenges is to balance those requirements and focus on technology that is doable within the timeframe needed to build and field the system.

The next program Key Decision Point (KDP), which would be the decision to go into the design phase, is KDP-B, roughly at the end of FY08 or in FY09. The first operational satellite is schedule to be fielded about 2015.