



Raytheon's AIRSS Space System Concept — Innovative space payloads for advanced missile warning

System Benefits

- Provides state-of-the-art WFOV full-Earth staring sensors
- Leverages the experience and expertise of a proven space systems leader
- Enables low-risk development of next-generation missile warning capability
- Forms a solid base for future IR multimission space sensor development
- Offers potential for more elegant, less complex, lower cost missile warning solutions

Advancing the AIRSS Vision

The overall vision of the Advanced Infrared Satellite System (AIRSS) program is to employ new technologies in a low-risk development effort to create next-generation full-Earth staring, space-based infrared (IR) missile detection and warning systems. Raytheon's expertise was selected for the program's initial segment, under which we are designing and building an integrated sensor assembly to be evaluated in ground tests.

Raytheon

Low-risk space payload technology for AIRSS success

Positioned to Support AIRSS Success

With its powerful combination of space, mission systems integration and net-centric operations expertise, Raytheon is well positioned to support the U.S. government's AIRSS initiative. Our capabilities in these areas will expedite the assessment of full-Earth staring sensor payload technology -- and data sharing in a net-centric environment -- for missile warning and other important Department of Defense missions.

We also offer program-specific expertise and 40 years of proven experience in developing high-performance space solutions.

Providing a Modular Payload Concept

Raytheon's AIRSS payload features a simple, elegant design that doesn't require a gimbal or pointing mirror, which translates to lower cost, lower risk, and less payload management complexity. It clearly demonstrates the potential of full-Earth staring sensors to significantly expand current IR missile warning and early detection capabilities. In addition, our payload offers a path to

increased sensitivity, faster detection, and higher resolution for unparalleled missile warning/missile defense mission utility. Raytheon's modular payload architecture readily accommodates future technology developments.

Continuing a Legacy of Space Mission Assurance

In supporting the AIRSS initiative, Raytheon continues its legacy of developing innovative space technology to meet critical mission requirements. A recognized leader in advanced, integrated systems for space-based intelligence, surveillance and reconnaissance, we've developed major infrared systems including:

- Advanced IR sensor payloads for missile warning in support of U.S. ballistic missile defense
- Payloads that deliver advanced detection and radiometric capabilities for environmental research and other missions
- Various payloads that have demonstrated our ability to produce low-cost, highly effective IR sensors for space applications

Raytheon military space sensors have a record of 100 percent successful turn-on after launch and have greatly exceeded their required on-orbit lifetime. We continue to build on achievements like these to create space systems our nation can rely on, with no doubt, on every crucial mission.

Forging a Strong Partnership

With our proven leadership in space sensors and systems, and vast technical and scientific resources, Raytheon is the ideal partner for the AIRSS team in developing this next generation of infrared missile warning sensor payloads.

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Customer Success Is Our Mission