

# **SPACE SECURITY**

## Protecting Our Nation and Allies with Resilient Mission Capabilities

Northrop Grumman is a trusted leader in national and global security space missions. We provide responsive, scalable solutions across all orbits that make space more accessible and affordable. We're a prime provider for national security missions across all domains, including Multi-INT Intelligence, Surveillance and

Reconnaissance (ISR), space domain awareness, protected satellite communications, Overhead Persistent Infrared (OPIR), and Joint All Domain Command and Control (JADC2).

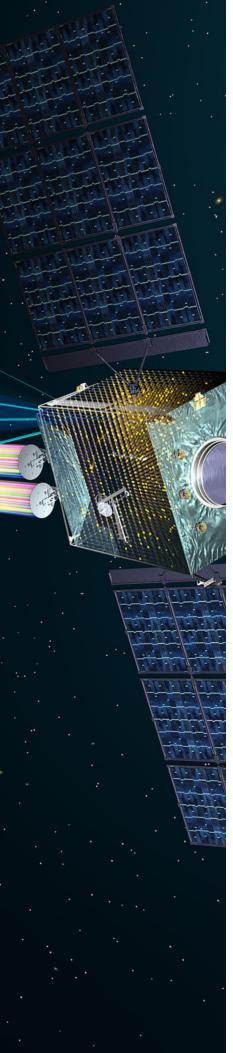
Northrop Grumman has decades of demonstrated experience as a prime contractor, payload, bus, and ground systems provider supporting vital national and global security missions.

Space continues to be a contested environment. The systems we build need to operate within the constraints of a dynamic threat

environment. To help mitigate risks and enable our systems to operate with resilience through conflicts, Northrop Grumman partners with government organizations to develop a wide range of technical and CONOPS measures that enable our nation's and allies' ongoing missions in space.

We cover the the entire lifecycle of mission support for our customers' missions, from training to on-orbit operations.





## **SPACE SECURITY**

#### **AGILE SPACE SYSTEMS**

We are experienced in delivering small and agile systems, making space more accessible and affordable than ever before. For example, our ESPAStar™ space vehicles allow customers across a wide variety of mission areas to rideshare on existing launch missions. Our standard payload ports allow for integration as late as the launch site. The ESPAStar platform provides a modular, cost-effective, and highly capable infrastructure resource for hosting technology development and operational payloads. The ESPAStar platform uses a customized EELV Secondary Payload Adapter (ESPA) ring as part of its structure and is capable of being launched aboard any launch vehicle that meets the Evolved Expendable Launch Vehicle (EELV) standard interface specification.

#### **SPACE DOMAIN AWARENESS**

Maintaining space domain awareness and space situational awareness has never been more critical to global security than today. Northrop Grumman provides capabilities to monitor human-made orbiting objects in the geosynchronous environment, enhancing knowledge of the GEO environment and improving spaceflight safety.

#### **SATELLITE COMMUNICATIONS**

Northrop Grumman military satellite communications is giving our customers the tools they need to navigate unprecedented threats to our space-based communications systems. Building on more than 40 years of mission experience, we're focused on mission success. From high-end secured communications to emerging proliferated low-Earth orbit communications architectures, our systems are ensuring warfighters have access to communications and data across the full spectrum of conflict.

# GROUND SYSTEMS AND GLOBAL DATA ACCESS

At Northrop Grumman, we continue to advance the frontiers of enterprise sensing technology for space domain awareness, ensuring our customers have the tools they need to meet challenging mission requirements and stay ahead of the threat. Our team is currently sustaining and deploying well over 100 space-related radars, sensors, and antennas across every continent except Antarctica and developing ground-based radar technology for all-weather, 24/7 capability to monitor the highly dynamic and rapidly evolving geosynchronous orbital environment. We provide the nation with immense capability to understand what is happening from low Earth orbit to deep space.

#### **TACTICAL SENSING & ISR**

Space-based intelligence and sensing are the backbone for the connected battlespace and ensures information is delivered to the right place at the right time. Northrop Grumman provides a variety of capabilities that deliver actionable intelligence to our warfighters and key decision makers.

### **CONNECTED BATTLEFIELD**

Northrop Grumman is providing innovative solutions that serve as enabling functions to support future-state JADC2 operations. Enhanced space-based sensing and data transmission capabilities are leading the way to a fully realized connected battlefield.



