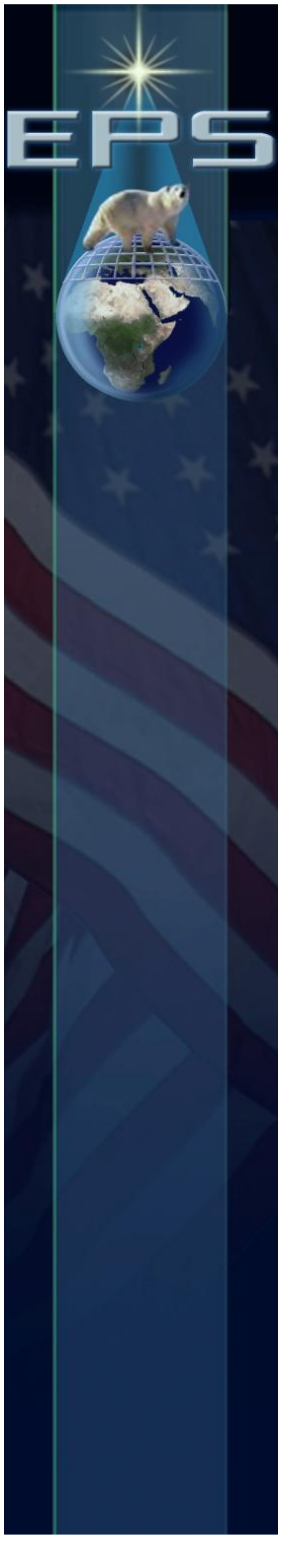
NORTHROP GRUMMAN FACTS



Enhanced Polar System

Mission/Vision

The Enhanced Polar System (EPS) represents an evolution of requirements for protected extremely high frequency (EHF) satellite communications in the North Polar Region; above 65 deg N. EPS is the next-generation SATCOM system that will replace the current Interim Polar System (IPS) and serve as a polar adjunct to the Advanced EHF system.

Background

EPS will provide continuous coverage in the polar region for secure, jam-resistant, strategic and tactical communications to support peacetime, contingency, homeland defense, humanitarian assistance and wartime operations. The system consists of two EHF communications payloads hosted on satellites operating in highly elliptical orbits, modified AEHF communications terminals, a Gateway to provide connectivity into other communication systems and the Global Information Grid (GIG) and an extension of the AEHF Mission Control Segment (MCS) hardware and software to accommodate EPS.

Features

The EPS system will provide communications for military tactical and strategic forces and other users for operations above 65 deg N. Additionally, EPS provides connectivity to Combatant Commander Command and Control (C2) centers below 65 deg N. EPS characteristics include protected communications services, communications services without continuous system C2, integrated capability allowing different levels of planners to manage their resources, interconnectivity between Enhanced Polar satellites and mid-latitude users via an EPS Gateway located at a GIG PoP (Point of Presence), data rates between 75 bps and 1.28 Mbps (threshold) and an AEHF Extended Data Rate (XDR)-interoperable waveform. With the first operational availability in 2016, EPS will be an essential adjunct to the MILSATCOM mid-latitude systems.

General Characteristics

Primary Function: Protected EHF communications above 65 deg N
Payload: Interoperable with AEHF Extended Data Rate (XDR) waveform
Antennas: 1 spot beam on Gateway, 1 user spot beam, 1 user earth coverage beam
Capability: 20 channels x 64 kbps/channel each

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Payload prime contractor: Northrop Grumman