![](_page_0_Picture_0.jpeg)

Horizons-2

Ku-band Commercial Communications Satellite

Communications

GEO

### **Mission Description**

Orbital manufactured the Horizons-2 satellite for Horizons Satellite Holdings, LLC, a joint venture between Intelsat of Luxembourg and SKY Perfect JSAT Corporation of Japan. The spacecraft was launched into an Intelsat-licensed orbital slot at 74 degrees West Longitude to help meet the growing demand for Ku-band satellite communications services in North America. The satellite features both a Continental United States (CONUS) beam and an East beam which extends the spacecraft's coverage to include the Caribbean and parts of Canada.

## The GEOStar<sup>™</sup> Advantage

Orbital's highly successful Geosynchronous Earth Orbit (GEO) communications satellites are based on the company's GEOStar spacecraft platform, which is able to accommodate all types of commercial communications payloads and is compatible with all major commercial launchers. The company's GEOStar product line includes the GEOStar-2 design, which is optimized for smaller satellite missions that can support up to 5.0 kilowatts of payload power. Orbital has also developed the higher-power GEOStar-3 spacecraft design, delivering the next increment of payload power for applications between 5.0 and 8.0 kilowatts, allowing Orbital to offer its innovative and reliable satellite design to the medium-class of communications satellites.

### FACTS AT A GLANCE

**Coverage:** United States and parts of the Caribbean and Canada

![](_page_0_Picture_11.jpeg)

Mission: Ku-band communications

Customer: Horizons Satellite Holdings, LLC

![](_page_0_Picture_14.jpeg)

Horizons-2 in Orbital's Dulles, Virginia satellite manufacturing facility

# Horizons-2

### Specifications

#### Spacecraft

Launch Mass:	2,350 kg (5,181 lb.)
Solar Arrays:	Three panels per array, UTJ Gallium Arsenide cells
Stabilization:	3-axis stabilized; zero momentum system
Propulsion:	Liquid bi-propellant transfer orbit system; monopropellant (hydrazine) on-orbit system
Batteries:	Two >3850 W-Hr capacity Li-Ion batteries
Mission Life:	15 years
Orbit:	74° West Longitude

#### Payload

Ku-band Repeater

Repeater:	16 active transponders with 22-for-16
	redundant TWTAs; 4 active transponders
	with 6-for-4 redudant TWTAs
Antenna:	Two 2.3 m dual grid shaped reflectors

#### Launch

Launch Vehicle:	Ariane 5
Site:	Kourou, French Guiana
Date:	December 21, 2007

#### **Mission Partners**

Horizons Satellite Holdings, LLC A joint venture between Intelsat and SKY Perfect JSAT

#### Orbital Sciences Corporation

Prime contractor for Galaxy 12, 14 and 15; Intelsat 11, 15, 16, 18, 23 and 28; and Horizons-2 for an Intelsat/SKY Perfect JSAT joint venture

Arianespace Launch provider

#### Coverage Contour Maps

CONUS Coverage Area

![](_page_1_Picture_16.jpeg)

East Coast Coverage Area

![](_page_1_Picture_18.jpeg)

![](_page_1_Picture_19.jpeg)

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