

Horizons 2 Satellite Designed to Meet Unique Government & Military Requirements >>

Intelsat’s all-Ku band CONUS satellite, Horizons 2, was designed to support the operations of a wide range of military and government customers. Horizons 2 offers coverage over the continental United States and offshore well into international waters.

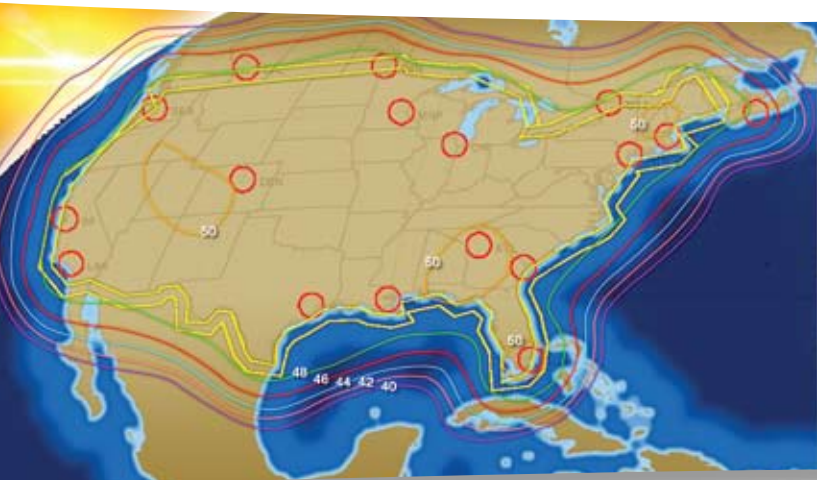
The satellite is configured with two primary beams. One provides continental U.S. coverage (CONUS) with “hot spot” service to major North American cities. The second footprint transmits a boomerang-shaped beam that skirts the entire eastern coast of North America and the Caribbean Islands with coverage extending over 300 nautical miles out to sea.

Intelsat’s Horizons 2 satellite, and specifically the “boomerang” beam, is designed to support government

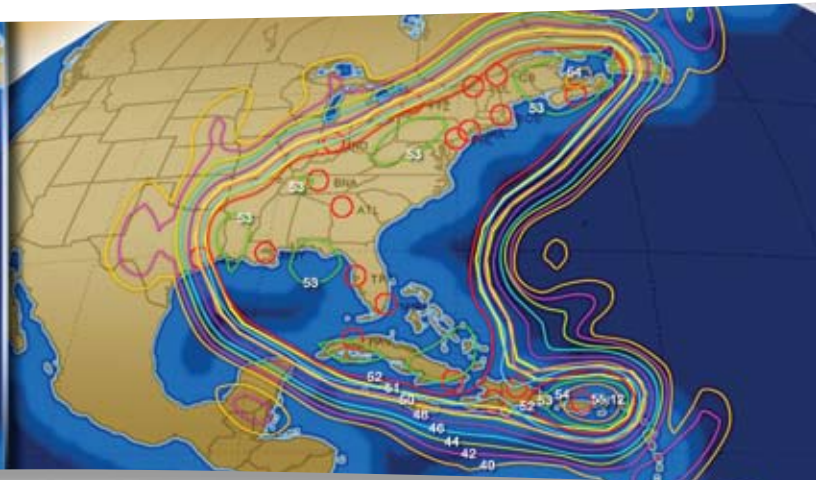
and military applications, including unmanned aerial vehicles (UAVs), imagery dissemination within the continental United States, and broad area maritime surveillance along the East Coast of the United States.

Key Features of Horizons 2

- Unique 72 MHz channelization supports industry’s highest UAV throughput and can support five simultaneous UAV missions.
- Offers high data rates using sub-1-meter antennas
- Supports Communications-on-the-Move (COTM) applications using small dish or array antennas
- Ideal for Homeland Security / Emergency Response / Disaster Recovery / Continuity of Operations support



CONUS Beam



East “Boomerang” Beam

Horizons 2 “Hot Spot” Coverage

Atlanta	USA	Seattle	USA
Boston	USA	Tampa	USA
Chicago	USA	Calgary	Canada
Denver	USA	Halifax	Canada
Houston	USA	Montreal	Canada
Indianapolis	USA	Toronto	Canada
Los Angeles	USA	Quebec	Canada
Miami	USA	Ottawa	Canada
Minneapolis	USA	Winnipeg	Canada
Nashville	USA	Guantanamo	Cuba
New Orleans	USA	Havana	Cuba
New York	USA	Port-au-Prince	Haiti
Philadelphia	USA	Santiago	Dominican Republic
San Francisco	USA	San Juan	Puerto Rico
Savannah	USA		

Spacecraft Design

Horizons 2, built by Orbital Sciences Corp, is located at 74 W longitude. Ground support is provided from Intelsat’s teleport facility at Mountainside, MD. The Mountainside teleport provides uplink and downlink services and backhauls traffic within the “boomerang” or CONUS beams, providing interconnection with Intelsat IP points of presence in New York City and McLean, VA. Horizons 2 employs command encryption that meets the National Security Agency’s requirements for Mission Assurance Category (MAC) I and II missions.

Twelve of the satellite's 20 Ku transponders are dedicated to U.S. and coastal coverage, including increased power for selected "hotspots" around 17 highly-populated U.S. and Canadian locations. The remaining 8 Ku transponders are switchable between the "boomerang" area and the continental United States. Connectivity is selectable on a channel-by-channel basis, allowing for CONUS to East Beam, East beam to CONUS, East to East and/or CONUS to CONUS interconnectivity. The repeater selectivity, interconnectivity and redundancy on Horizons 2 maximize transponder availability.

Horizons 2 High Power Capabilities

A key feature of Horizons 2 is its capability to support high-data-rate unmanned aerial vehicle (UAV) missions typical of the Predator or Global Hawk. Many satellites are stretched to support one UAV mission at a time, whereas Horizons 2, with its unique 72 MHz channelization, can support one Global Hawk or five simultaneous Predator flights with just one of its four, 72 MHz transponders.

The high power of Horizons 2 supports COTM applications anywhere in the U.S. or along its borders using antennas below one meter in diameter.

Horizons 2 Boomerang Beam Capabilities

- Ship-to-shore communications
- Cargo tracking at sea
- Drug traffic interdiction programs
- Airborne weather sensors
- Email and Internet service for shipboard crews

The Horizons 2 "boomerang" beam supports littoral water operations and provides "hot spot" coverage to populated locations in the Caribbean, including the Guantanamo Bay Naval Base in Cuba.

In addition to its military and homeland security applications, Horizons 2 is also an ideal platform for distance learning programs at universities; the redistribution of satellite imagery to processing and analyst centers; corporate and government distance training sessions with interactive classes; and high-resolution image file distribution.

The Horizons 2 satellite offers high-power Ku-band coverage over the most vital regions of the United States, providing higher data rates with smaller antennas than other commercial satellites available to government customers. The ability to support multiple UAV missions will make the satellite an important component of maritime operations along the coast for many years to come, further positioning Intelsat General as an industry leader in tailoring its products to meet specific customer needs.

Horizons 2 – Supporting Multiple Applications >>

Military/Business Continuity

- Intelligence, surveillance and reconnaissance (UAVs)
- Disaster recovery communications for first-response agencies
- Landline backup for terrestrial systems outages
- Control data / event driven video surveillance
- Data to border checkpoints to interconnect immigration and law enforcement agencies

O&G/Maritime Communications

- Data, voice, video to large ships & small deck vessels
- Web browsing / email
- Secure network traffic
- Enhanced SCADA
- Cargo sensors, shipment tracking certificate verification for port security
- Drug traffic interdiction programs

Distance Learning

- Web seminars
- Interactive classes
- Curriculum sharing

Multicast

- Multimedia multicasting
- File distribution

Corporate Intranet/Private IP

- Corporate Intranet
- VPN
- VoIP, email, file transfers
- IP point-of-sale
- Complementary satellite extensions where terrestrial is unavailable

ISPs

- 2-way broadband access
- Direct link to backbone



INTELSAT
General Corporation

FOR MORE INFORMATION:

Intelsat General Corp.
6550 Rock Spring Dr., Ste. 450
Bethesda, MD 20817
301.571.1210
www.intelsatgeneral.com