

SKYM-1

Hybrid Ku-band and R-band Commercial Communications Satellite

FACT SHEET



Mission Description

The SKYM-1 spacecraft carries 24 active Ku-band transponders and 2 active R-band transponders providing Direct-to-Home broadcast services to the Mexico, Central America, and Caribbean regions. The satellite is located at 78.8 degrees West Longitude and will produce approximately 5.0 kilowatts of payload electrical power.

Orbital ATK was selected by DIRECTV to build SKY MEXICO -1 (SKYM-1). The SKYM-1 satellite design is based on Orbital ATK's highly successful, flight-proven, GEOSTar™-2 satellite platform, was manufactured and tested at Orbital ATK's state-of-the-art satellite manufacturing facility in Dulles, Virginia.

The GEOSTar™ Advantage

Orbital ATK'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 ATK 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 ATK to offer its innovative and reliable satellite design to the medium-class of communications satellites.

FACTS AT A GLANCE

Coverage:

Mexico, Central America, and the Caribbean



Mission:

Ku- and R-band communications

Customer:

DIRECTV

SKYM-1

Specifications

Spacecraft

Launch Mass:	3,000 kg (6,614 lb.)
Solar Arrays:	Two four-panel solar array wings, 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 4P9S capacity Li-Ion batteries
Mission Life:	15 years
Orbit:	78.8° West Longitude

Payload

Ku-band

Repeater:	24 active transponders
Antenna:	2.5 x 2.7 m single shell super-elliptical deployable reflectors

R-band

Repeater:	2 active transponders
Antenna:	2.5 x 2.7 m single shell super-elliptical deployable reflectors

Launch

Launch Vehicle:	Ariane 5
Site:	Kourou, French Guiana
Date:	May 27, 2015

Mission Partners

DIRECTV

One of the world's leading providers of digital television entertainment services delivering a premium video experience through state-of-the-art technology, unmatched programming, and industry leading customer service to more than 32 million customers in the U.S. and Latin America.

Orbital ATK

Design, integration and test of the SKYM-1 satellite

Arianespace

Launch provider

Coverage Contour Map

