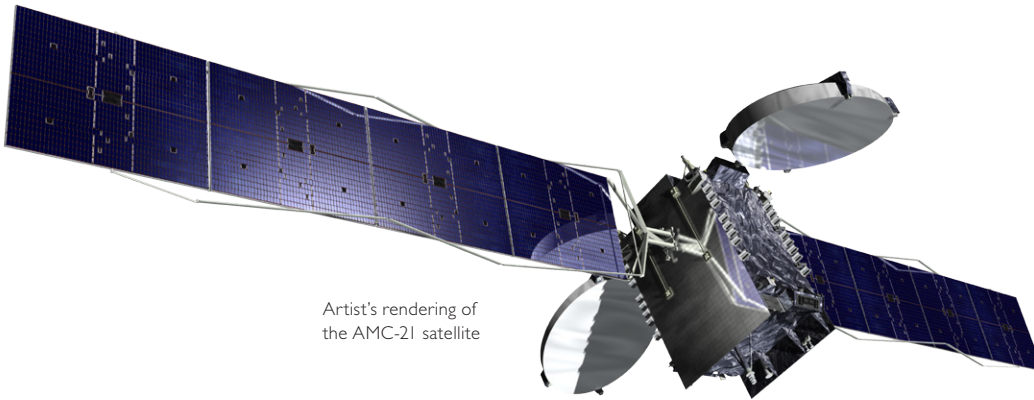




AMC-21

Ku-band Communications and Broadcasting for the United States and the Caribbean



Artist's rendering of the AMC-21 satellite

Mission Description

Built for SES WORLD SKIES, the AMC-21 satellite provides Ku-band fixed communications and television distribution services over CONUS, Alaska, Hawaii, as well as the Gulf of Mexico, Caribbean and Central American region. The satellite is located at 125 degrees West Longitude, a new location for SES WORLD SKIES, supplementing its fleet of satellites over the United States, Asia and Europe. SES WORLD SKIES is part of the SES Global family of satellite operating companies. It has been operating satellites for more than 30 years over the United States.

Spacecraft

The AMC-21 satellite is based on Orbital's flight-proven GEOStar-2 bus and is among the most powerful GEO communications satellites ever built by Orbital. The satellite carries 24 active Ku-band transponders on a platform that is ideal for telephony, data and broadcasting applications. The satellite provides approximately 5.0 kw of power for spacecraft operation through all environments.

QUICK FACTS:



Coverage:

CONUS, Alaska, Hawaii and the Caribbean

Mission:

Ku-band satellite service for Continental United States, Alaska, Hawaii and the Caribbean

Customer:

SES WORLD SKIES - Princeton, N.J.
(Thales Alenia Space - Paris, France - Prime Contractor)



AMC-21 in Orbital's Satellite Manufacturing Facility prior to its August 2008 launch

AMC-21

Specifications

Spacecraft

Launch Mass:	2,500 kg (5,511 lbs.)
Solar Arrays:	Four panels per array
Stabilization:	3-axis stabilized, zero momentum system
Propulsion:	12 0.9N REA thrusters, IMPEHTs for NSSK
Batteries:	Li-Ion 9680 W-Hr total capacity at EOL
Mission Life:	15 years
Orbit:	125 degrees West Longitude

Payload

Frequency:	Ku-band
Repeater:	32-for-24 Ku-band TWTA's (of which 24 will be active)
TWTA Power:	4.4 kW
Antenna:	Two 2.3 m dual gridded shaped reflector antennas

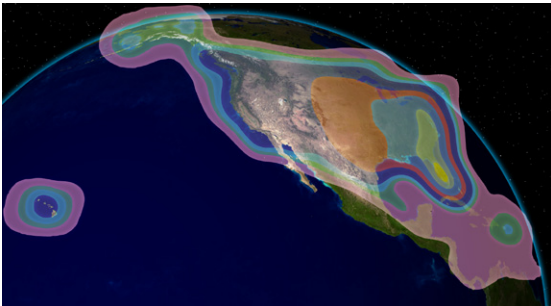
Launch

Launch Vehicle:	Ariane 5
Site:	Kourou, French Guiana
Date:	August 14, 2008

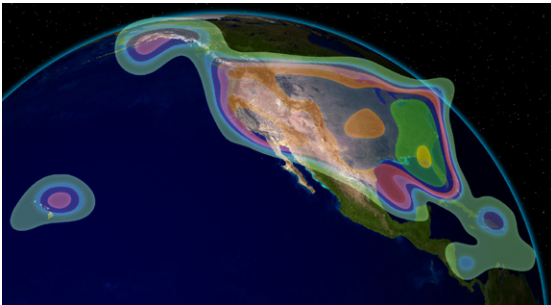
Coverage Contour Maps

Payload performance exceeds requirements over the full coverage areas.

EIRP Contours



GT Contours



Mission Partners

SES WORLD SKIES

A leading U.S.-based satellite operator providing a broad range of communication services

Orbital Sciences Corporation

Provided STAR-2 spacecraft bus and final integration, assembly and test

Thales Alenia Space

Prime contractor and payload supplier

Arianespace, S.A.

Launch provider



AMC-21 was launched into orbit on an Ariane 5 launch vehicle