

# AMC-21

Ku-band Commercial Communications Satellite



## Mission Description

Built for SES, the AMC-21 satellite provides Ku-band fixed communications and television distribution services over the Continental United States (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, supplementing its fleet of satellites over the United States, Asia and Europe. SES 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.

## 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:

CONUS, Alaska, Hawaii and the Caribbean

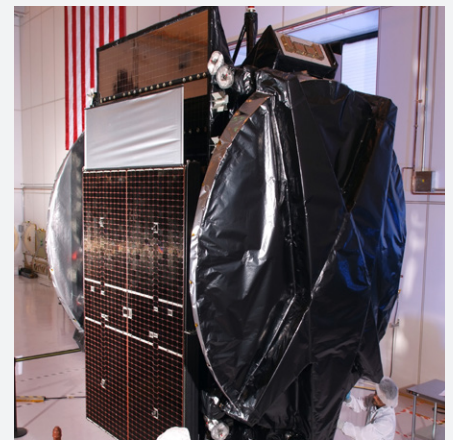


### Mission:

Ku-band satellite service

### Customer:

SES  
(Thales Alenia Space – Prime Contractor)



AMC-21 in Orbital ATK's Dulles, Virginia satellite manufacturing facility

# AMC-21

## Specifications

### Spacecraft

Launch Mass:	2,500 kg (5,511 lb.)
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° West Longitude

### Payload

#### Ku-band

Repeater:	32-for-24 Ku-band TWTAs (of which 24 are active)
TWTA Power:	4.4 kW
Antenna:	Two 2.3 m dual grid shaped reflectors

### Launch

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

## Mission Partners

### SES

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

### Orbital ATK

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

### Thales Alenia Space

Prime contractor and payload supplier

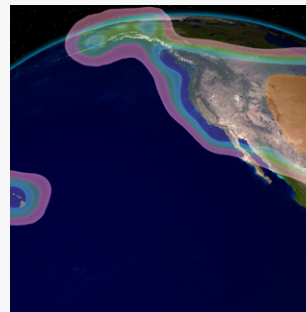
### Arianespace

Launch provider

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## Coverage Contour Maps

### EIRP Contours



### GT Contours

