

MEASAT-3a

Hybrid Ku-band and C-band Commercial Communications Satellite



Mission Description

The MEASAT-3a satellite was developed and built for MEASAT Satellite Systems of Kuala Lumpur, Malaysia. The satellite carries 12 Ku-band and 12 C-band active transponders along with three antennas. MEASAT-3a serves C-band markets throughout the region with a global beam, and Ku-band beams serve direct-to-home broadcasting markets in Malaysia and Indonesia. The satellite is located at an orbital slot at 91.5 degrees East Longitude over Southeast Asia and generates approximately 3.6 kilowatts of payload power.

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:

Asia, the Middle East and Africa

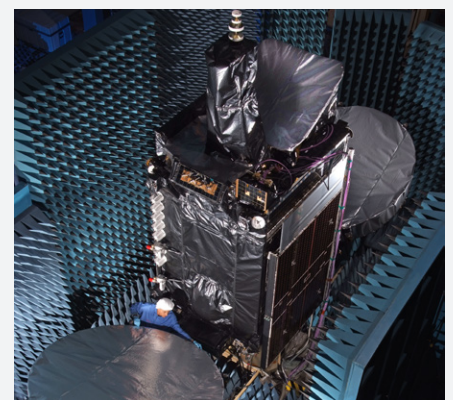


Mission:

Ku-band Direct-To-Home (DTH) television broadcasting and C-band Fixed Satellite Services (FSS)

Customer:

MEASAT Satellite Systems



MEASAT-3a undergoes testing in Orbital ATK's Dulles, Virginia satellite manufacturing facility

MEASAT-3a

Specifications

Spacecraft

Launch Mass:	2,417 kg (4,448 lb.)
Solar Arrays:	Three panels per array, UTJ Gallium Arsenide cells
Stabilization:	3-axis stabilized
Propulsion:	Monopropellant (hydrazine) on-orbit system
Batteries:	Two 4248 W-Hr
Mission Life:	15 years
Orbit:	91.5° East Longitude

Payload

C-band

Repeater:	12 active transponders with 15-for-12 linearized 60 W TWTA's
TWTA Power:	60 W RF
Antenna:	2.3 m dual grid shaped deployable reflector; 1.2 m deck-mounted

Ku-band

Repeater:	12 active transponders with 15-for-12 linearized TWTA's
TWTA Power:	120 W RF
Antenna:	2.3 m dual grid shaped deployable reflector

Launch

Launch Vehicle:	Zenit
Site:	Baikonur, Kazakhstan
Date:	June 21, 2009

Mission Partners

MEASAT Satellite Systems

One of Southeast Asia's leading satellite communications providers

Orbital ATK

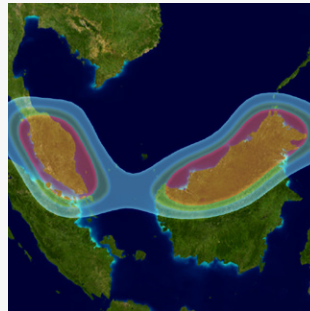
Prime contractor for MEASAT-3a

Land Launch

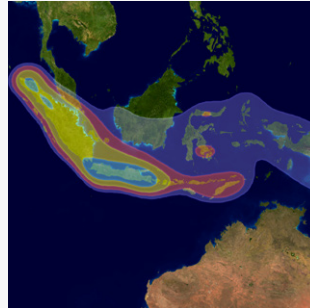
Launch provider

Coverage Contour Maps

MLA Contours



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