

THOR 5

Ku-band FSS and BSS Commercial Communications Satellite



Mission Description

The THOR 5 satellite was developed and built for Telenor Satellite Broadcasting AS (TSBc) to provide broadcasting and interactive services to the Nordic countries, Europe and the Middle East. The Telenor THOR 5 spacecraft replaced the THOR II satellite at the 0.8 degrees West Longitude orbital position, and provides additional capacity, further expanding TSBc's business base.

THOR 5 provides regional Ku-band coverage for Fixed Satellite Services (FSS) and Broadcast Satellite Services (BSS). There are 15 active FSS transponders and nine active BSS transponders for fixed coverage regions. In addition, five more active BSS transponders are routed through a steerable antenna that can be pointed toward any other region on Earth visible from the 0.8 degrees West Longitude.

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:

Scandinavia, Europe and the Middle East



Mission:

Ku-band Fixed Satellite Service (FSS) and Broadcast Satellite Service (BSS)

Customer:

Telenor Satellite Broadcasting AS (TSBc)



THOR 5 in Orbital ATK's Dulles, Virginia satellite manufacturing facility

THOR 5

Specifications

Spacecraft

Launch Mass:	1,960 kg (4,322 lb.)
Solar Arrays:	Four panels per array, UTJ Gallium Arsenide cells
Stabilization:	3-axis stabilized
Propulsion:	Monopropellant (hydrazine) on-orbit system
Batteries:	Two >4248 W-Hr capacity Li-Ion batteries
Mission Life:	15 years (fueled for >18 years)
Orbit:	0.8° West Longitude

Payload

Ku-band

Repeater:	24 active transponders with 32-for-24 linearized TWTAs
TWTA Power:	55 W RF (FSS); 150 W RF (BSS)
Antenna:	Two 2.3 m dual grid shaped deployable reflectors; one .75 m steerable antenna

Launch

Launch Vehicle:	Proton
Site:	Baikonur, Kazakhstan
Date:	February 11, 2008

Mission Partners

Telenor Satellite Broadcasting AS (TSBc)

100% owned by Telenor, Norway's largest telecom operator. Telenor Satellite Broadcasting is one of Europe's leading satellite operators.

Orbital ATK

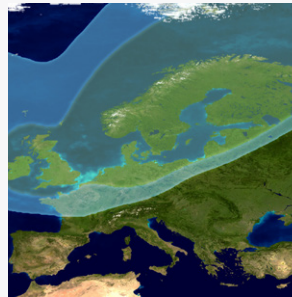
Prime contractor for THOR 5

International Launch Services

Launch provider

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