Northrop Grumman teamed with Thales Alenia Space of France to supply the KOREASAT 6 commercial communications satellite for KT Corporation of the Republic of Korea. Northrop Grumman provided its GEOStar™-2 satellite platform; carried out engineering, manufacturing, integration and final spacecraft testing at its satellite manufacturing facility located in Dulles, Virginia; and performed launch site operations in Kourou, French Guiana. Thales Alenia Space was prime contractor for the project and provided the communications payload. In addition, the team delivered a ground system to support on-orbit operations of the satellite. Northrop Grumman provided six months of on-site support after the satellite was handed over to the customer.

KOREASAT 6 carries 24 Ku-band channels to provide Fixed Satellite Services (FSS) and six channels for Direct Broadcast Services (DBS) to Korea. The spacecraft generates 3.4 kilowatts of payload power and has a 15-year on-orbit mission life. KOREASAT 6 was launched in December 2010 to a final orbital slot at 116 degrees East Longitude.

**Coverage**
Korea

**Mission**
Ku-band communications to provide DBS and FSS

**Customer**
KT Corporation
(Thales Alenia Space – Prime Contractor)
Specifications

Spacecraft
Launch Mass: 2,622 kg (5,780 lb.)
Solar Arrays: Three panels per array, UTJ Gallium Arsenide cells
Stabilization: 3-axis stabilized
Propulsion: Monopropellant (hydrazine) on-orbit system
Batteries: Two >4840 W-hr capacity Li-ion batteries
Mission Life: 15 years (fueled for >16 years)
Orbit: 116° East Longitude

Payload
Ku-band
Repeater: 30-for-24 FSS TWTAs, 9-for-6 DBS TWTAs
TWTA Power: 130 W RF and 50 W RF
Antenna: One 2.3 m single shell deployable; one 2.3 m dual grid array deployable reflector

Launch
Launch Vehicle: Ariane 5
Site: Kourou, French Guiana
Date: December 29, 2010

Mission Partners

KT Corporation
Korea’s leading integrated communications service provider

Thales Alenia Space
Prime contractor for KOREASAT 6 and provider of the communications payload

Arianespace
Launch provider

Northrop Grumman
Northrop Grumman provided the satellite bus; carried out engineering, manufacturing, integration and final spacecraft testing; and provided six months of on-site support after the satellite was handed over to the customer

Coverage Contour Maps

FSS Beam

DBS Beam

KOREASAT 6 in Northrop Grumman’s Dulles, Virginia satellite manufacturing facility