



Star One C3

C-band/Ku-band Hybrid Satellite for Star One S.A.



Artist's rendering of the Star One C3 satellite

Mission Description

The Star One C3 satellite being manufactured for Star One S.A. will carry a hybrid payload. The satellite's C-band payload will serve South America. The Ku-band payload will serve Brazil and other areas of South America.

Spacecraft

The Star One C3 satellite is based on Orbital's Enhanced GEOStar-2.4 bus. The spacecraft will carry 28 active C-band transponders for coverage of South America, and 16 x 72 MHz Ku-band transponders with six switchable channels between Brazil and the Andean coverage region. The spacecraft will generate approximately five kilowatts of payload power and will feature two 2.3 meter deployable reflectors and one 1.4 meter earth deck-mounted antenna.

QUICK FACTS:



Coverage:

Brazil, The Andes and South America

Mission:

Ku- and C-band communications for the South American Region

Customer:

Star One S.A. - Rio de Janeiro, Brazil



Star One C3 is based on Orbital's STAR satellite platform, and will undergo integration and testing at Orbital's Satellite Manufacturing Facility in Dulles, VA

Star One C3

Specifications

Spacecraft

Launch Mass:	3,200 kg (7,055 lb.)
Solar Arrays:	Four panels per array, UTJ Gallium Arsenide cells
Stabilization:	3-axis stabilized; zero momentum system
Propulsion:	Liquid bi-propellant transfer orbit system; Monopropellant (hydrazine) on-orbit system
Batteries:	Two >4840 W-Hr capacity Li-Ion batteries
Mission Life:	≥15 years

Hybrid Payload

C-band

Repeater:	28 active transponders with two 16-for-14 TWTA interconnected rings
TWTA Power:	48 W RF
Antenna:	2.3 m dual grid deployable reflector

Ku-band

Repeater:	16 active transponders with two 10-for-8 TWTA rings
TWTA Power:	140 W RF
Antenna:	2.3 m dual grid deployable reflector; 1.4 m deck mounted antenna

Launch

Launch Vehicle:	Ariane 5
Site:	Kourou, French Guiana
Date:	2012

Mission Partners

Star One S.A.

An Embratel Company, Star One is Brazil's leading satellite communications service provider.

Orbital Sciences Corporation

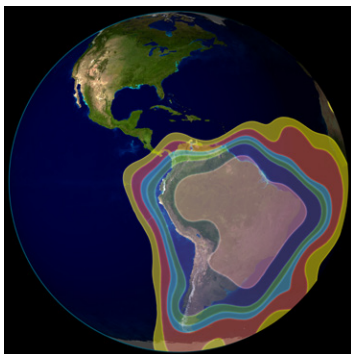
Prime contractor

Arianespace, S.A.

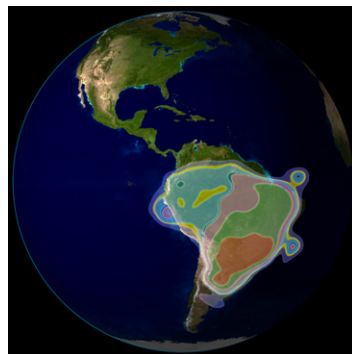
Launch provider

Coverage Contour Maps

C-band Coverage



Ku-band Brazilian Coverage



Ku-band Andean Coverage

