Built for Australia-based Optus Networks, Pty Limited, the Optus D-Series satellites provide Ku-band fixed communications and direct television broadcasting services to Australia and New Zealand. The Northrop Grumman-built satellites satisfy Optus’ need to replace aging on-orbit spacecraft as well as satisfy higher than anticipated demand for access to their C1 satellite. D1 was launched in October 2006 and replaced the Optus B1 satellite at 160 degrees East Longitude; D2 was launched in October 2007 and replaced the Optus B3 satellite at 152 degrees East Longitude.

**Spacecraft**

The D-Series satellites are based on Northrop Grumman’s flight-proven GEOStar™-2 bus. Each satellite carries 24 active Ku-band transponders on a platform that is ideal for telephony, data and broadcasting applications. Both spacecraft generate approximately 3.8 kilowatts of payload power.

**Coverage**

Australia and New Zealand

**Mission**

Ku-band fixed communications and direct television

**Customer**

Optus Networks, Pty Limited
**Specifications**

**Optus D1**

**Spacecraft**
- Launch Mass: 2,300 kg (5,060 lb.)
- Solar Arrays: Three panels per array, UTJ Gallium Arsenide cells
- Stabilization: 3-axis stabilized; zero momentum system
- Propulsion System: Liquid bi-propellant transfer orbit
- Batteries: Two 4750 W-Hr capacity Li-Ion batteries (BOL)
- Mission Life: 15+ years
- Orbit: 160° East Longitude

**Payload**
- Ku-band Repeater: 24 active transponders with 20-for-16 150 W TWTAs; 10-for-8 44 W TWTAs
- TWTA Power: 3.8 kW
- Antenna: Two 2.3 m deployable dual-shell grid shaped reflectors

**Launch**
- Launch Vehicle: Ariane 5
- Site: Kourou, French Guiana
- Date: October 13, 2006

**Optus D2**

**Spacecraft**
- Launch Mass: 2,375 kg (5,225 lb.)
- Solar Arrays: Four panels per array, UTJ Gallium Arsenide cells
- Stabilization: 3-axis stabilized; zero momentum system
- Propulsion System: Liquid bi-propellant transfer orbit
- Batteries: Two 4750 W-Hr capacity Li-Ion batteries (BOL)
- Mission Life: 15+ years
- Orbit: 152° East Longitude

**Payload**
- Ku-band Repeater: 24 active transponders with 20-for-16 125 W TWTAs; 10-for-8 44 W TWTAs
- TWTA Power: 4.0 kW
- Antenna: Two 2.3 m deployable dual-shell grid shaped reflectors

**Launch**
- Launch Vehicle: Ariane 5
- Site: Kourou, French Guiana
- Date: October 5, 2007

**Mission Partners**

**Optus of Australia**
A leader in providing integrated communications in Australia

**Arianespace**
Launch provider

**Northrop Grumman**
Prime contractor for three Optus Ku-band satellites