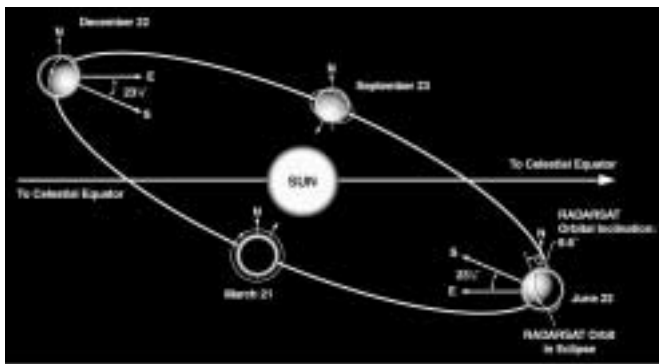


Innovations and benefits

INNOVATIONS	BENEFITS
GPS receivers onboard	▪ ±60-meter real-time position information
10 ms delay between imaging modes	▪ Faster mode changes
Yaw-steering for zero-doppler shift at beam centre	▪ Facilitates image processing
Higher downlink power density	▪ 3-metre minimum size antenna on ground allowing station portability
3-meter ultra-fine resolution	▪ Lower "cost of entry" for new ground stations
Left- and right-looking capability	▪ Highest-resolution commercially available SAR
Fully polarimetric imaging modes	▪ Faster revisit time
Solid-state recorders for onboard image storage	▪ 2000 km accessibility swath
	▪ Routine Antarctic mapping available
	▪ Enhanced capabilities for various applications
	▪ Higher reliability
	▪ Faster image access
	▪ Simultaneous recording and downlink



RADARSAT-2 will be placed in a sun-synchronous orbit at an altitude of 798 km. The repeat cycle and ground track will be the same as RADARSAT-1. (© MDA)

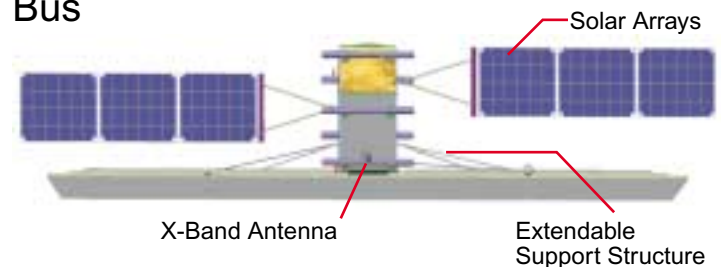
Orbit characteristics

Altitude (average)	798 km
Inclination	98.6 degrees
Period	100.7 minutes
Ascending node	18:00 hrs
Sun-synchronous	14 orbits per day
Repeat cycle	24 days

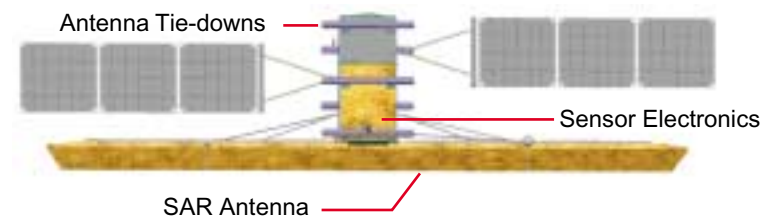
Coverage access using 500 km swath width

North of 70°	Daily
North of 48°	Every 1-2 days
Equator	Every 2-3 days

Bus



Payload



The RADARSAT-2 Bus Module consists of those elements of the spacecraft that provide general spacecraft support functions. The payload consists of the SAR antenna and specific support equipment required to perform such functions as timing and control of the payload, signal distribution, signal detection and thermal control. (© MDA)

General specifications

Total mass at launch	2200 kg
Mission life	7 years
SAR antenna dimensions	15 x 1.5 m
Solar arrays (each)	3.73 x 1.8 m
Bus	3.7 x 1.36 m