


Celebrating the First 7 Years of RADARSAT-2



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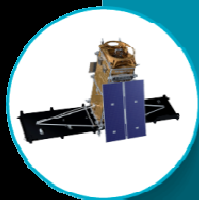
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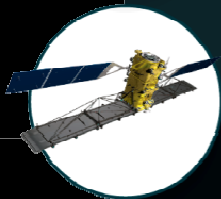
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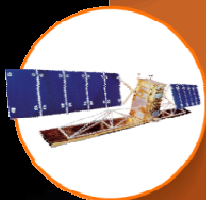
RELIABLE SAR MISSIONS



RADARSAT Constellation Mission (RCM) Mission Life
Launch 2018



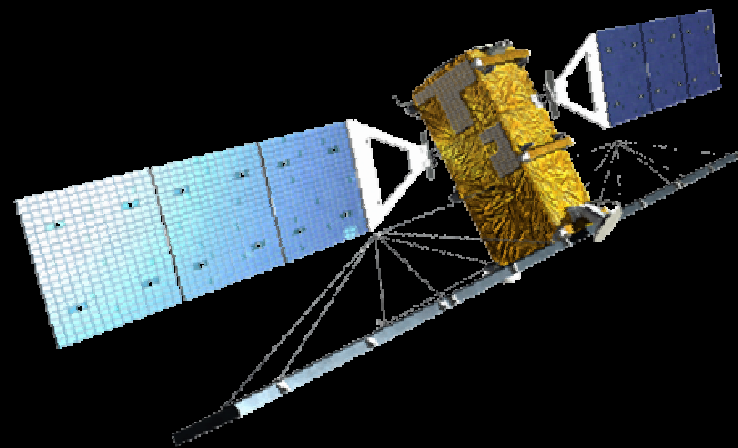
RADARSAT-2 Mission Life
Launch 2007



RADARSAT-1 Mission Life
Launch 1995

AL-11568-1R1-004



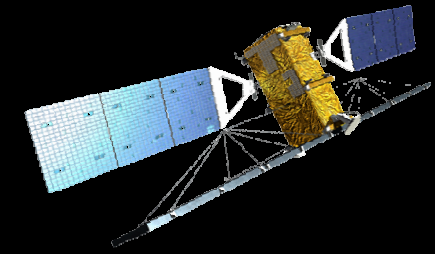


THE RADARSAT MISSION

RADARSAT-2



RADARSAT-2



- Launch: December 14, 2007
 - Routine Operations: April 27, 2008
- C-Band Synthetic Aperture Radar (SAR) mission
- 18 beam modes
 - Resolution from 1 m to 100 m
 - Scene size from 18 km to 500 km

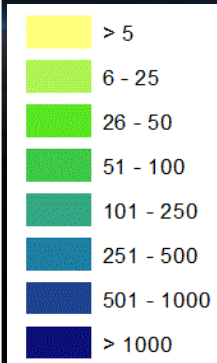
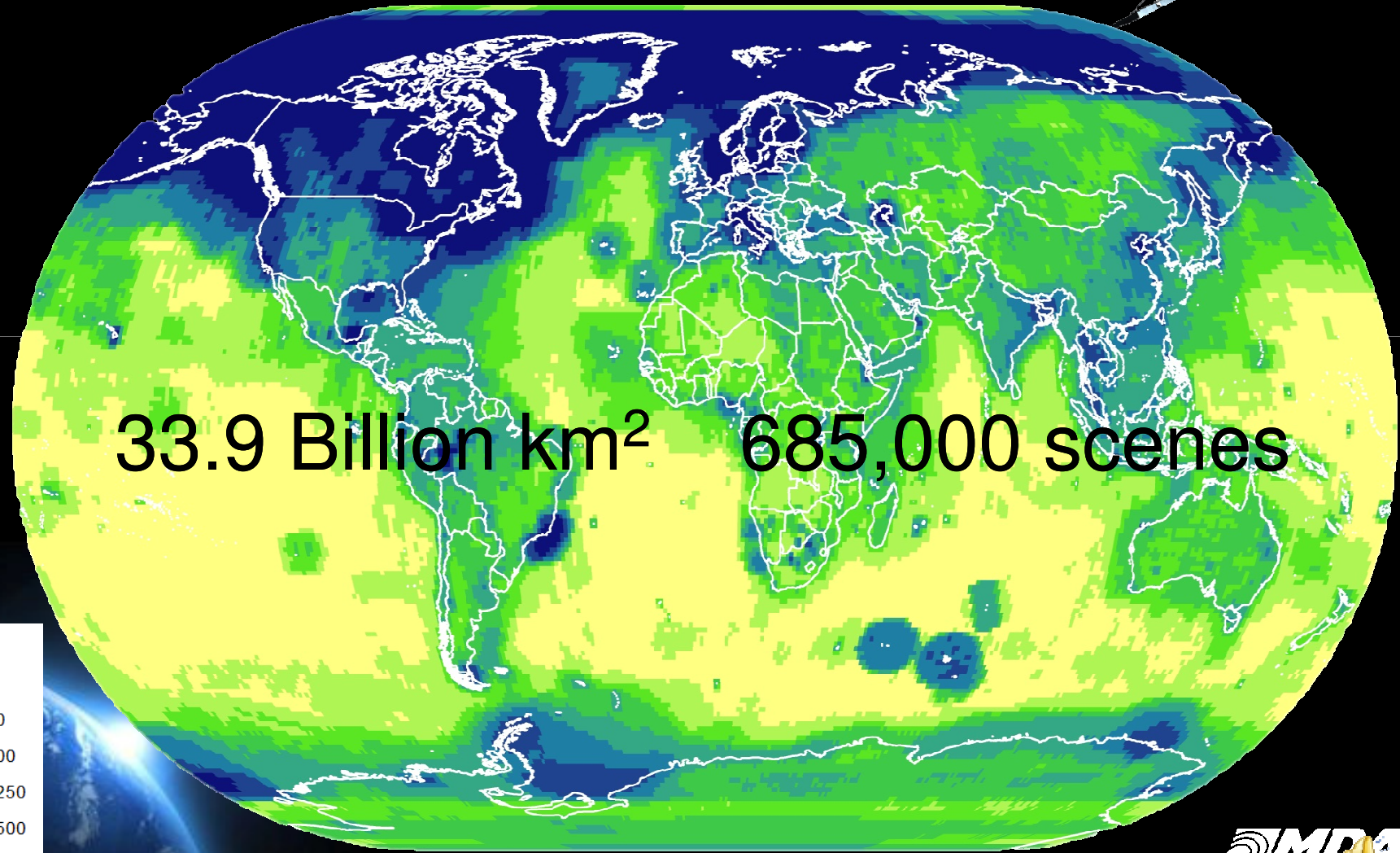
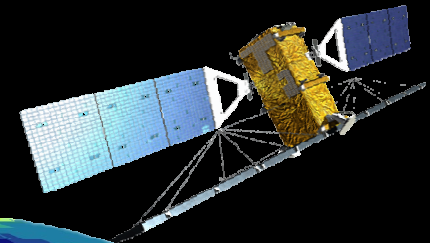
**ACQUIRED OVER 4,000
HOURS (> 5.5 MONTHS)
OF DATA**

**7 NEW BEAM MODES
ADDED SINCE LAUNCH**

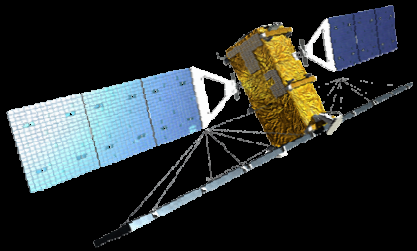
**RADARSAT-2 HAS ORBITED THE
EARTH 36,500 TIMES, THE
EQUIVALENT OF TRAVELLING
TO THE SUN AND BACK 5.5 TIMES**



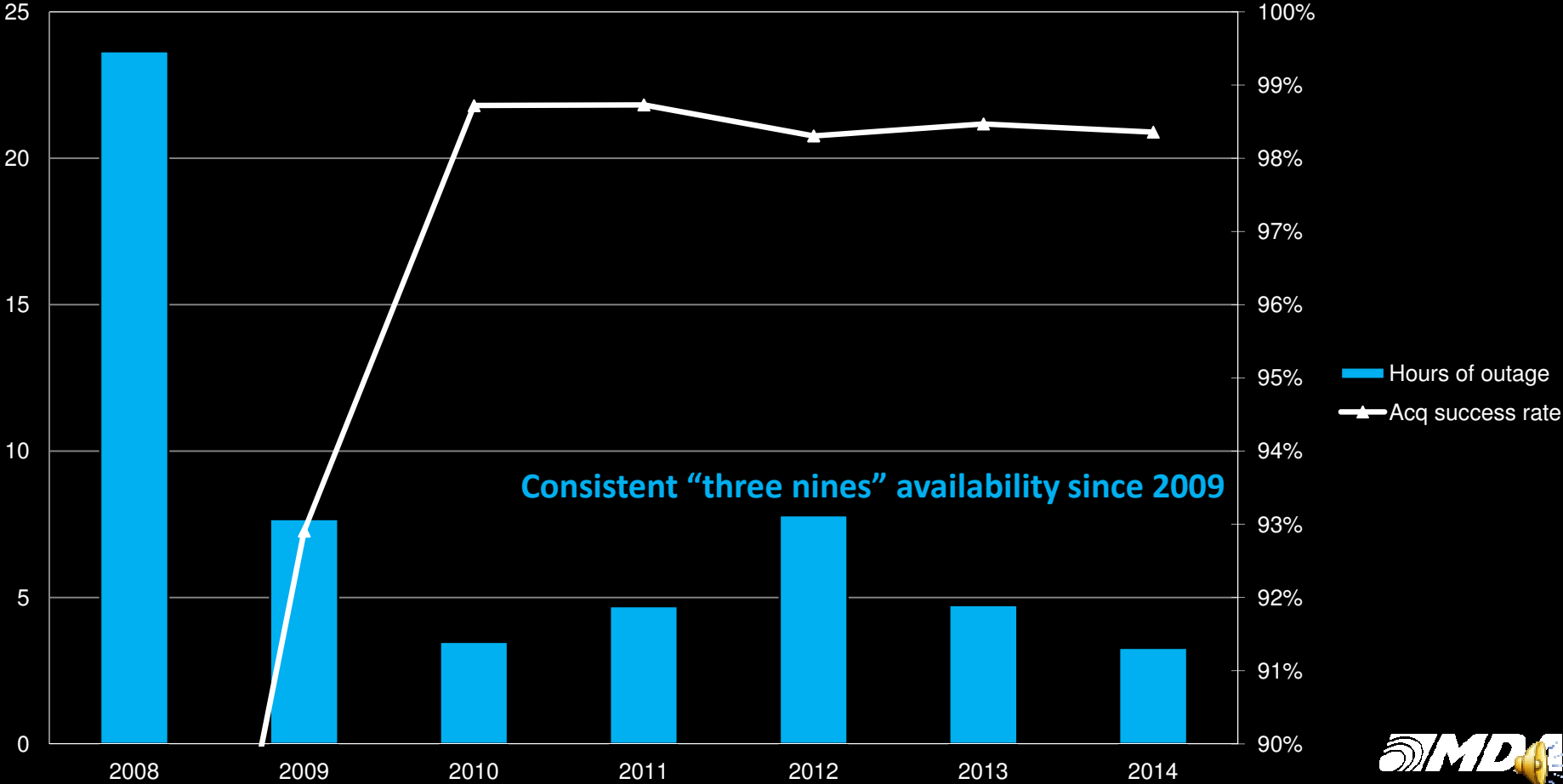
HIGH ACQUISITION CAPACITY



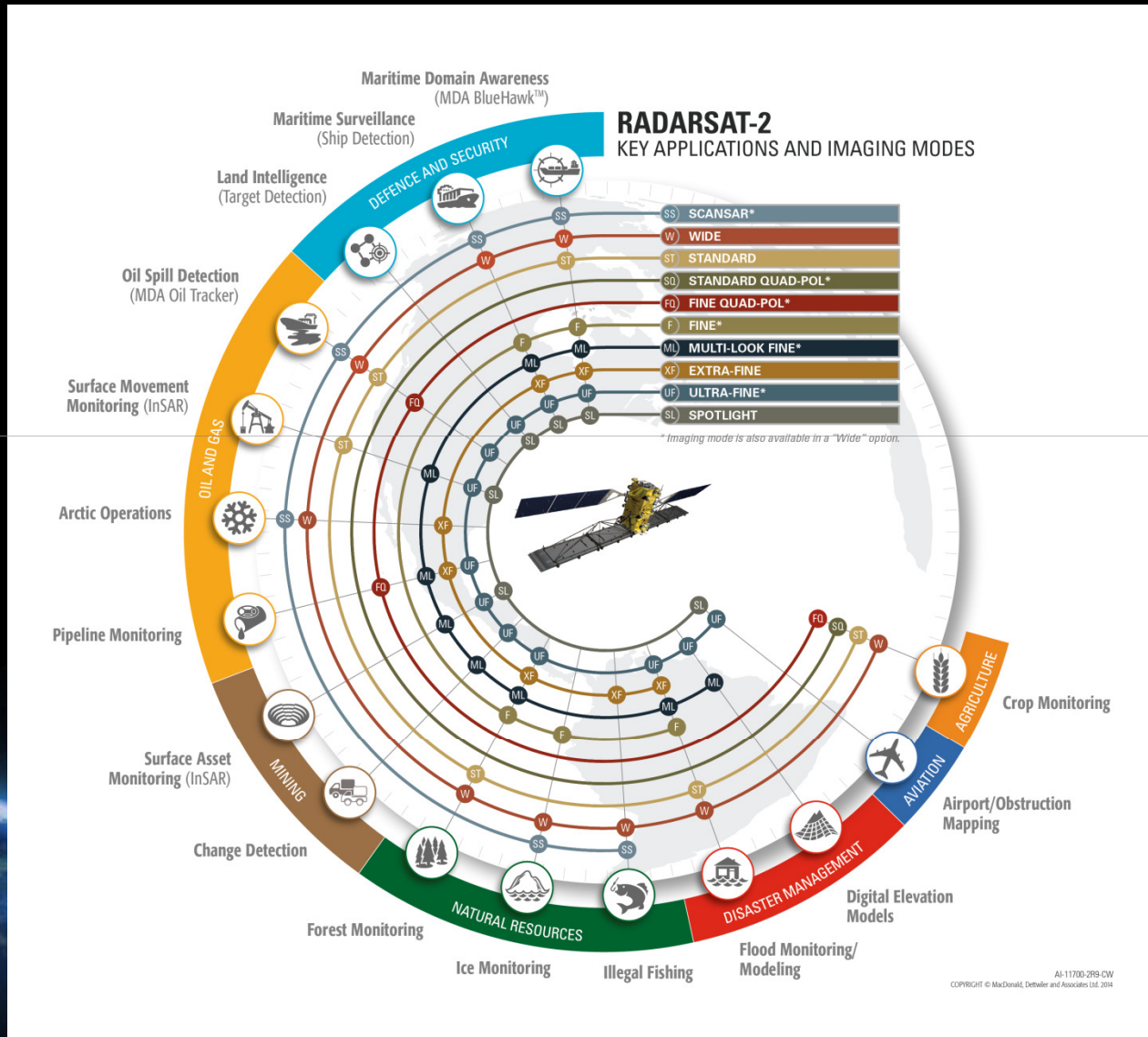
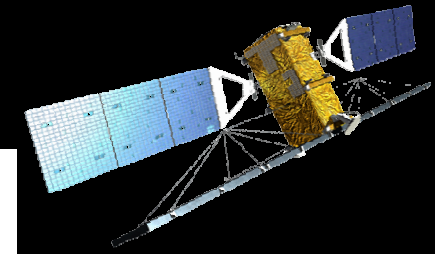
HIGHLY AVAILABLE



Monthly Average Per Year



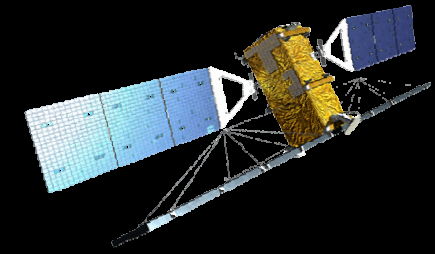
A FOCUS ON APPLICATIONS



AI-11700-2F9-CW
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KEY FACTORS IN SPACECRAFT HEALTH AND LONGEVITY



FUEL & POWER



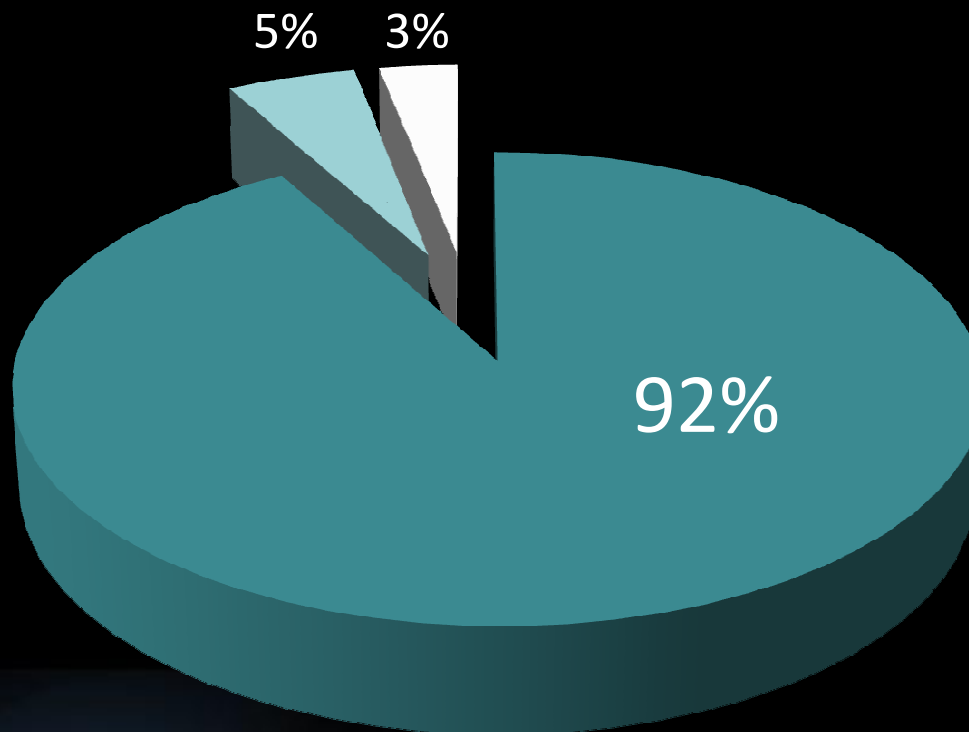
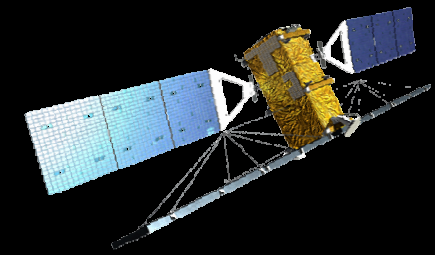
COMPONENT HEALTH



DESIGN LEGACY



RADARSAT-2 FUEL RESERVES



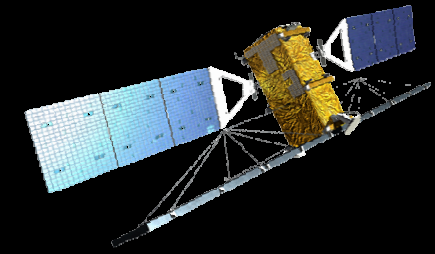
- Fuel Reserves
- Launch Adjustments
- Operations

FUEL IS NOT A LIMITING FACTOR

THE MISSION COULD EASILY OPERATE
FOR 30 YEARS OR MORE



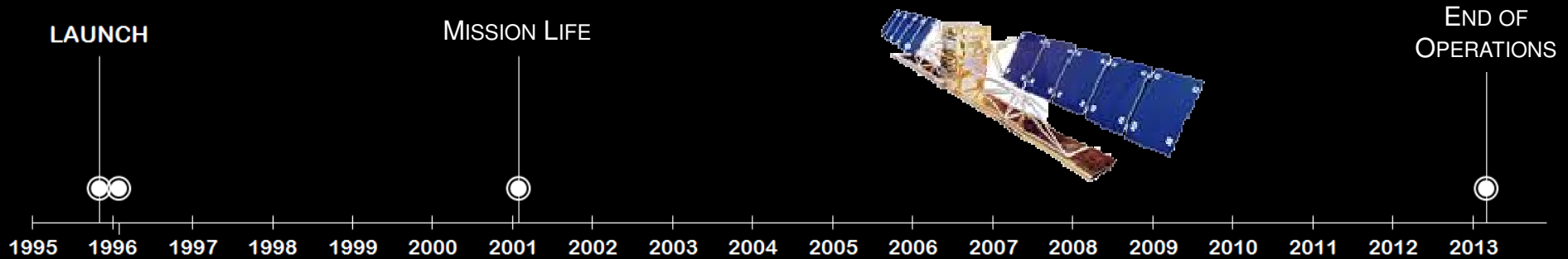
COMPONENT HEALTH



- Spacecraft health is excellent
- RADARSAT-2 is healthier now than RADARSAT-1 was after commissioning
 - RADARSAT-1 still lasted almost 18 years
 - RADARSAT-2 incorporated design lessons from RADARSAT-1
 - RADARSAT -2 has 7 year design life vs. RADARSAT-1's 5 years
- There has been no measurable performance degradation during operations
 - None of the components that have switched to secondary units impact image quality



MDA – A LEGACY OF RELIABILITY



RADARSAT-1 EXCEEDED ITS MISSION DESIGN LIFE BY ALMOST 3.5X – DOUBLE THE INDUSTRY AVERAGE



AVERAGE DESIGN LIFE

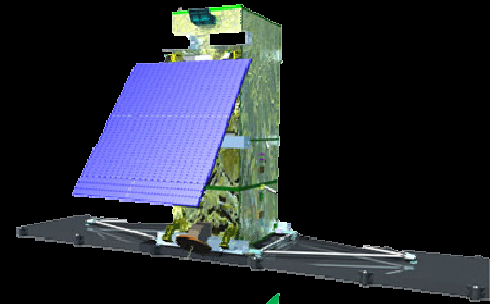


AVERAGE OPERATIONAL LIFE

1.6X



RADARSAT CONSTELLATION MISSION (RCM)

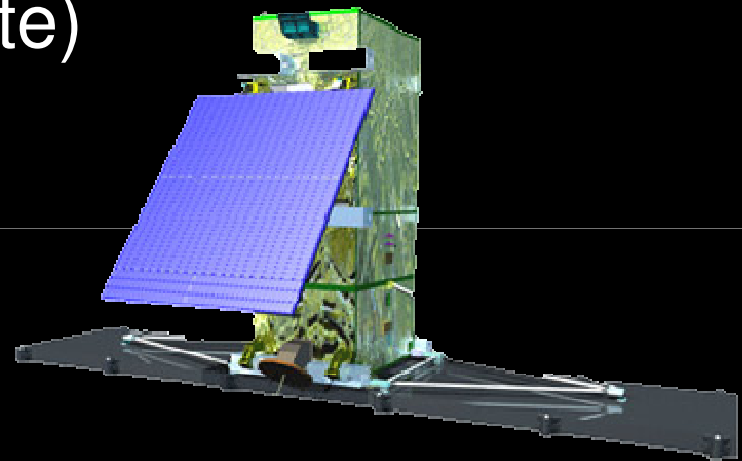


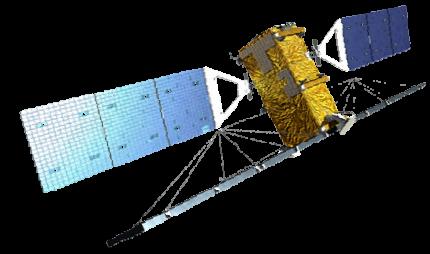
- RCM is a Canadian C-band SAR mission
- Consists of three satellites, as a follow on mission to RADARSAT-2
- Being developed by MDA for the Canadian Space Agency
- Mission development began in 2005
- Has completed MCDR and is 2 years into Phase D (Build)
- Satellite launches are planned for 2018



RCM Spacecraft Characteristics

- Orbit
 - 12-day repeat (each satellite)
 - 600 km altitude
- Imaging Capacity
 - 12 to 15 min/orbit (mean)
 - 20 to 25 min/orbit (peak)





Thank You!



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