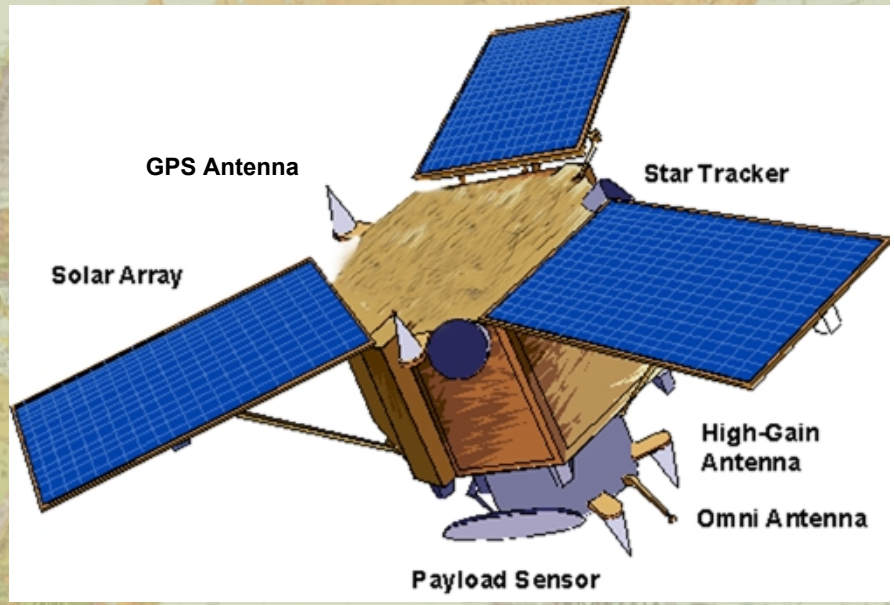
Space Imaging
IKONOS Overview

Gene Dial

Product Engineer

IKONOS Features

- 1m Ground Sample Distance in panchromatic band
- 4m ground sample distance in 4 multispectral bands (Blue, Green, Red, NIR)
- Simultaneous Pan and Multispectral collection
- "Pushbroom" collection with spacecraft motion scanning linear detector arrays along the ground
- Solid State focal plane for stable interior orientation
- GPS, Star Trackers, & Gyros for exterior orientation
- >11-km ground image swath at nadir
- Same pass stereo imaging
- 680 km sun-synchronous orbit for uniform lighting & global coverage
- 1m GSD images every 3 days
- Daily coverage with 2.7m GSD images



IKONOS satellite provides unique imaging capabilities

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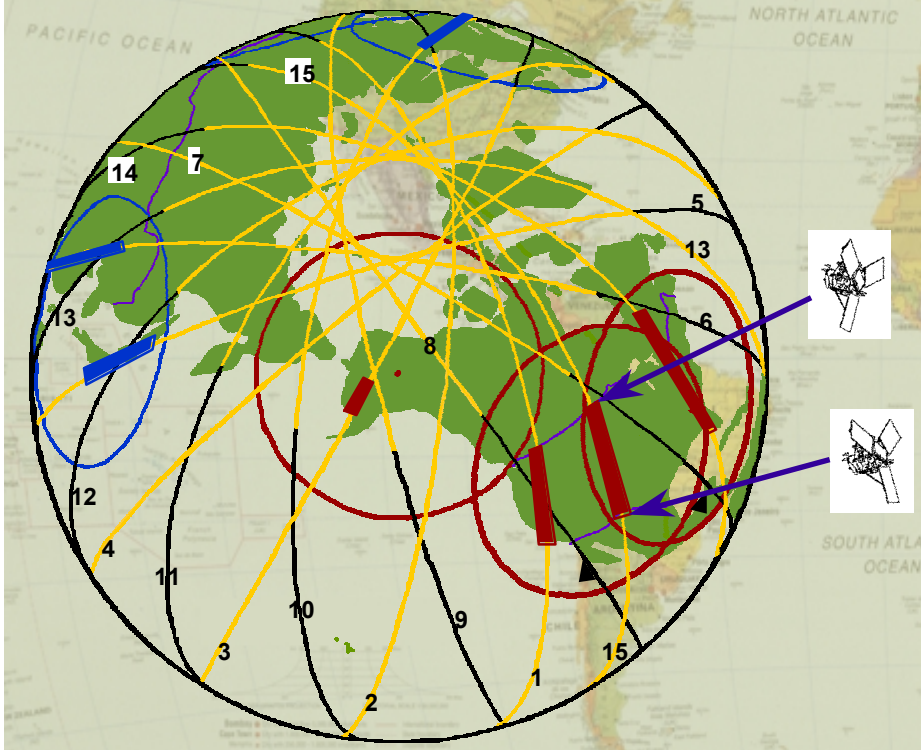
One Day during Mission Operations



- Sun Synchronous 680 km orbit
  - 15 revs per day
  - Satellite overhead same time 10:00 - 11:00
  - Ground track "walks" to provide near nadir viewing world wide

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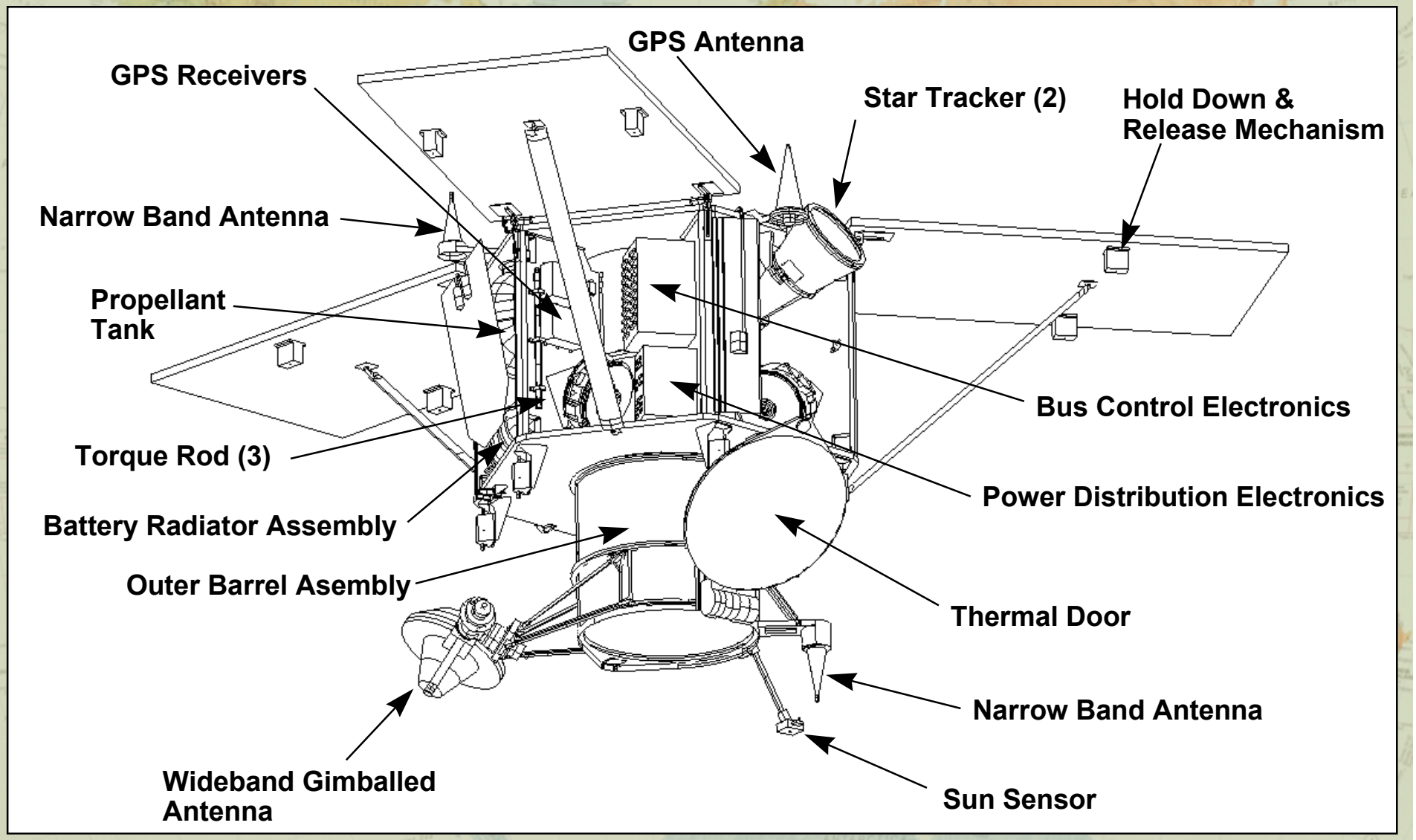
IKONOS Spacecraft Configuration



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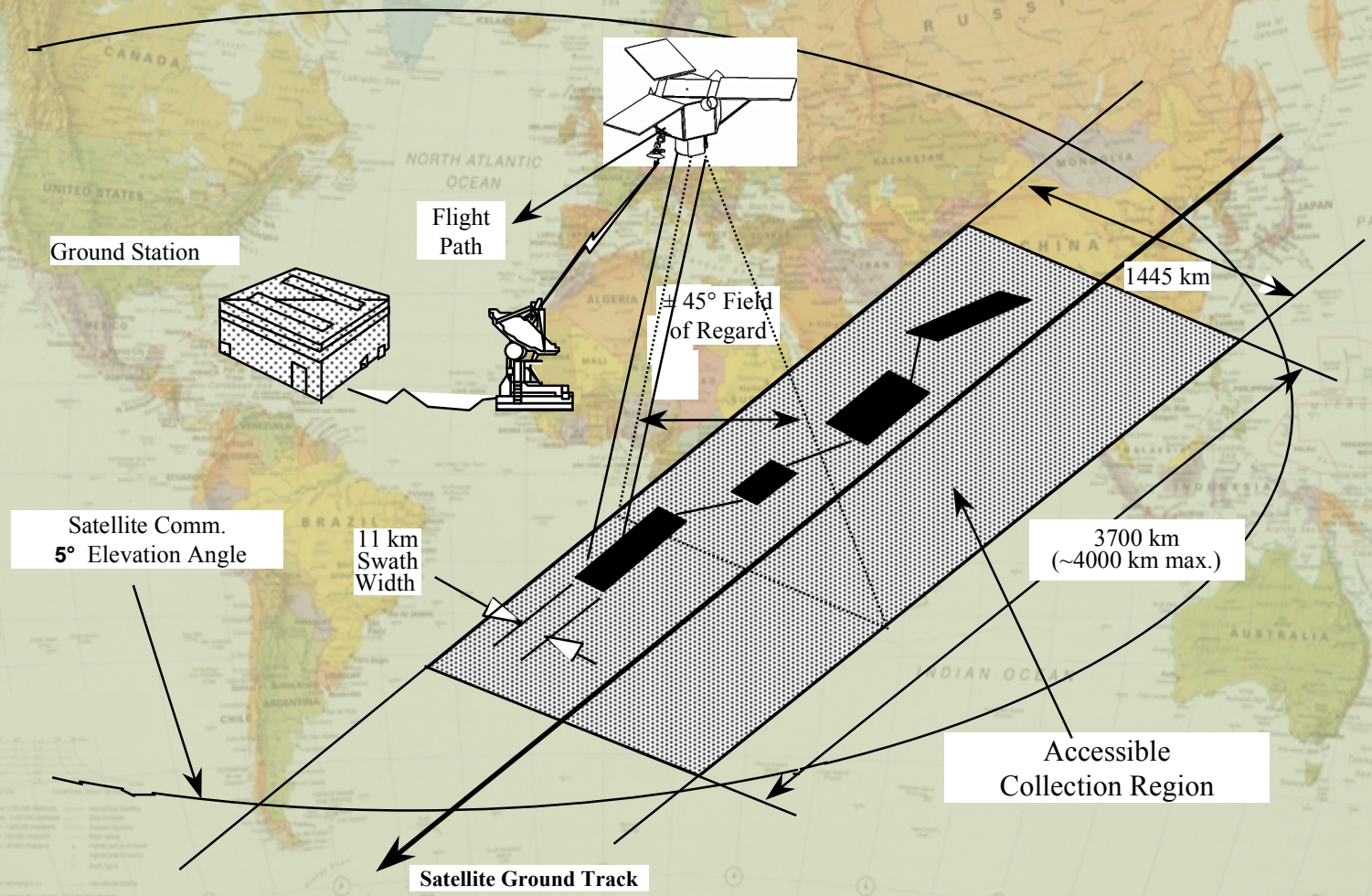
Spacecraft Maneuvering Capability



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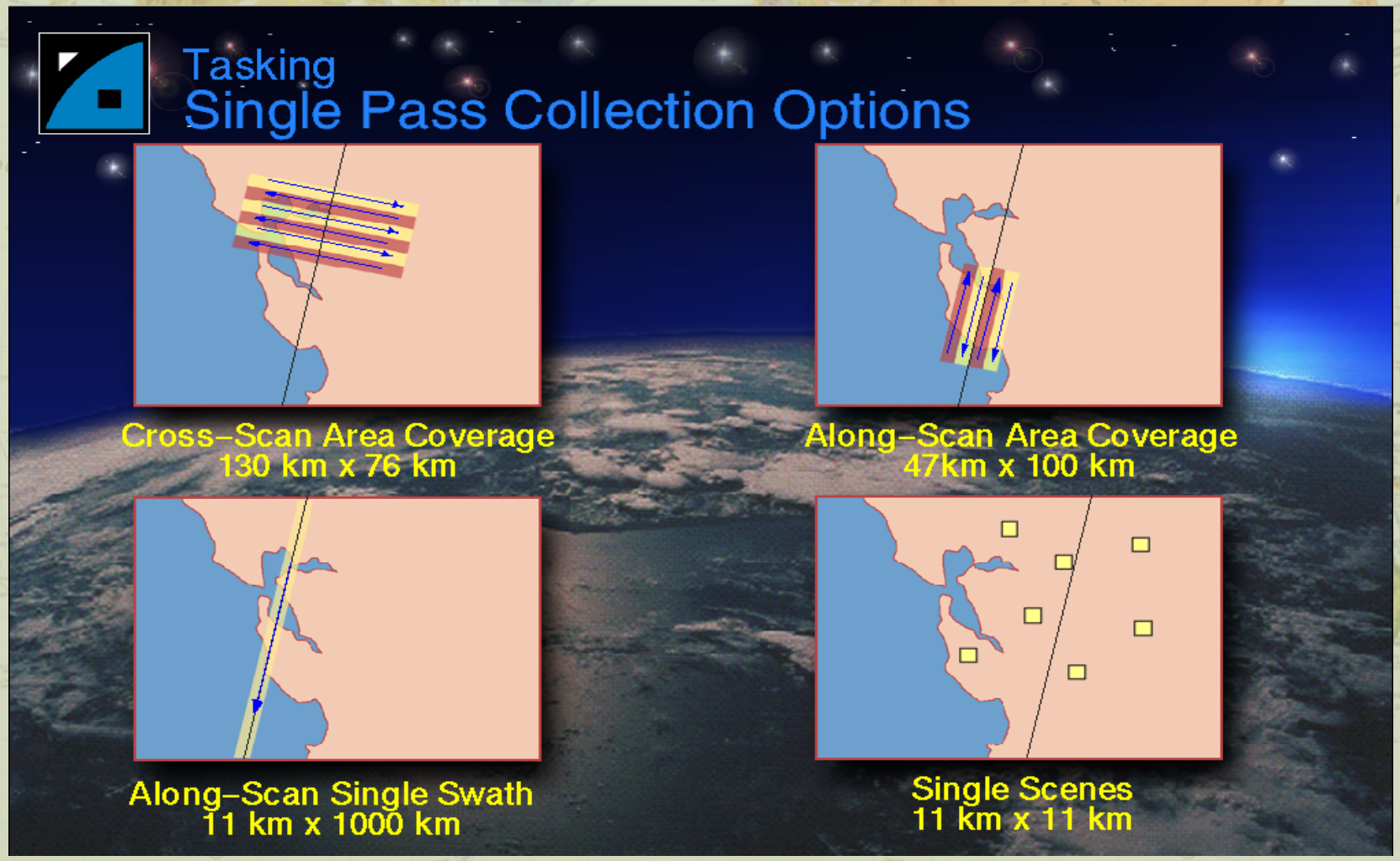
Tasking

Single Pass Collection Options



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