

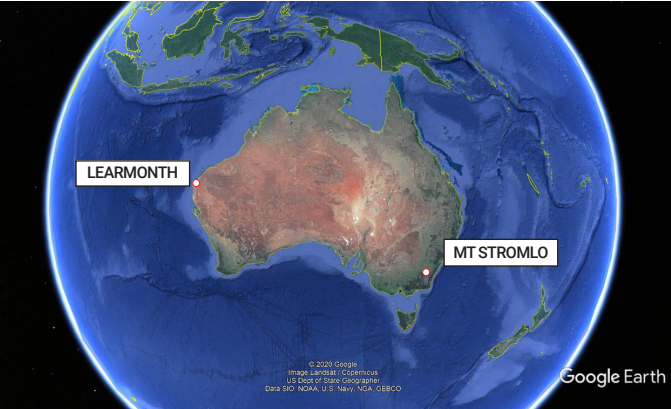
# SPACE OBSERVATION DATA SUBSCRIPTIONS



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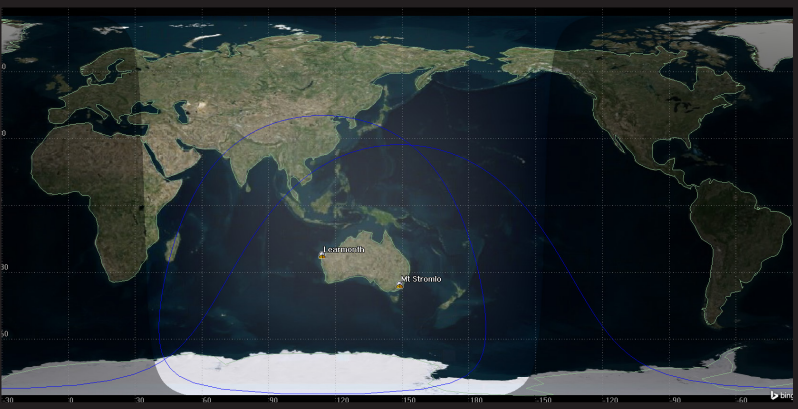
## TRACKING NETWORK

EOS’ tracking network comprises two sites with world-leading tracking capabilities in passive optical and laser ranging. These sensors are highly-precise large-aperture telescopes. The Mount Stromlo and Learmonth sites are shown below:



## COVERAGE

The coverage of each site is shown below. The blue represents the coverage of the passive optical systems for the Mt Stromlo and Learmonth sites. Laser ranging to debris without retro-reflectors is restricted to <3,500 km and can operate above 20 degrees elevation. The passive tracking systems are valid down to 10 degrees elevation.



### MOUNT STROMLO: SITE A



Latitude: -35.316°  
Longitude: 149.010°  
Height: 805.027m

TELESCOPE	APERTURE	FUNCTIONS
A1	1.8m	Laser ranging LEO and passive tracking LEO/GEO
A2	0.7m	Deep space WFOV tracking, passive tracking down to LEO, high speed photometry, kHz light curves
A3	1.0m	Satellite laser ranging to compliant targets (with retro-reflector), day or night

### LEARMONTH: SITE B



Latitude: -22.221°  
Longitude: 114.104°  
Height: -0.456m

TELESCOPE	APERTURE	FUNCTIONS
B1	1.0m	Passive visible LEO-GEO, thermal passive LEO (day-night)
B2	1.0m	Laser ranging LEO, passive visible LEO-GEO, thermal passive LEO (day-night)
B3	0.7m	Deep space WFOV tracking, passive tracking down to LEO
B4	0.7m	Deep space WFOV tracking, passive tracking down to LEO

FEATURES	SUBSCRIPTION LEVELS					
	1	2	3	4	5	CUSTOM
Tracks/Month	1,500	3,500	5,000	10,000	20,000	Contact EOS
Additional Tracks (cost per track)	\$33	\$28	\$27	\$25	\$24	
Laser Ranging (additional cost per track)	\$15	\$15	\$15	\$15	\$15	
Search / Survey (cost per hour)	\$1,650	\$1,400	\$1,350	\$1,250	\$1,200	
Emergency Tasking				✓	✓	
Monthly Fee*	\$50,000	\$100,000	\$135,000	\$250,000	\$480,000	

\* EOS observation data subscriptions prices assume a 12 month subscription. All costs are in Australian Dollars.

### OBSERVATION DATA SUBSCRIPTIONS

- Each track provides 30 seconds of data with at least 5 data points (observations) within the 30 seconds.
- A track includes slew and acquisition time so that a typical track takes up to 60 seconds (i.e. 30 seconds to slew and acquire, 30 seconds track time)
- Multiple objects can be tracked if in the same field-of-view. EOS sensors provide LEO-to-GEO coverage.
- All data delivered is screened and track correlation / object identification performed.

### OBSERVATION DATA TYPES

- Each track is autonomously processed to filter out noise.
- The track is then statistically correlated with an object.
- Data is provided as an extracted file of observation points including epoch, azimuth, elevation, range (if used).
- Imagery products or raw laser ranging data can also be provided.

### DATA PROCESSING

- Observation data can be provided in any format. EOS is a member of the Unified Data Library. Measurement types include:
- Range
  - Azimuth, elevation.
  - Right ascension, declination
  - Object magnitude fluctuations (light curves)

### SPACE SITUATIONAL/DOMAIN AWARENESS

- Services, include:
- Special perturbation (SP) ephemeris generation with error information
  - TLE generation
  - Satellite manoeuvre detection
  - Proximity analyses