



DRAGONFLY  
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# Infrastructure & Operations for Satellite Systems



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# Infrastructure



- Development labs
- Mechanical workshop
- Solder and rework area
- Assembly Facilities
- Environmental Testing Facilities

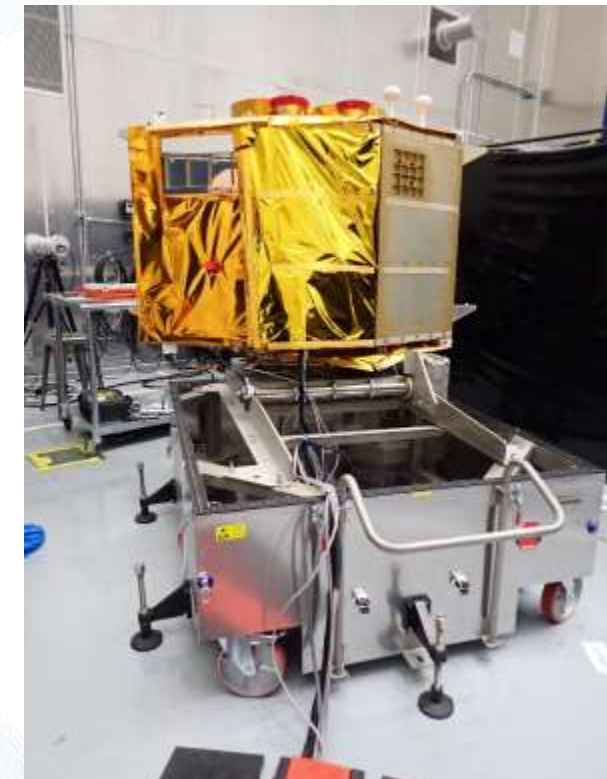




# EOSSAT-1 production to launch



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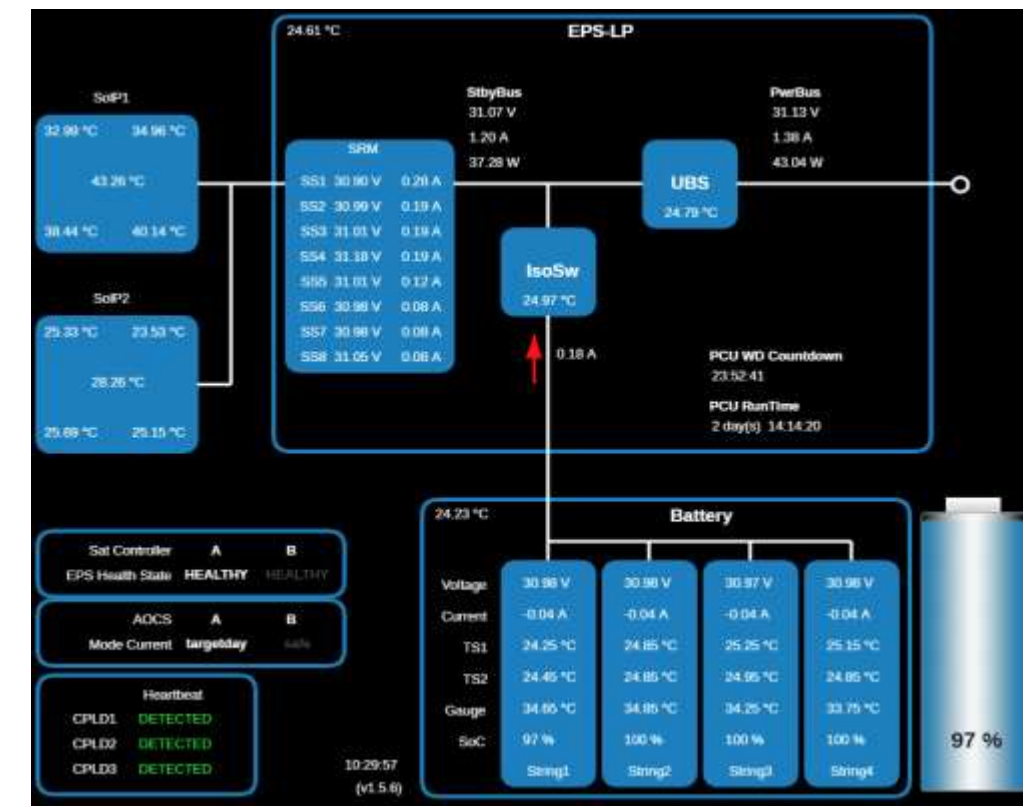
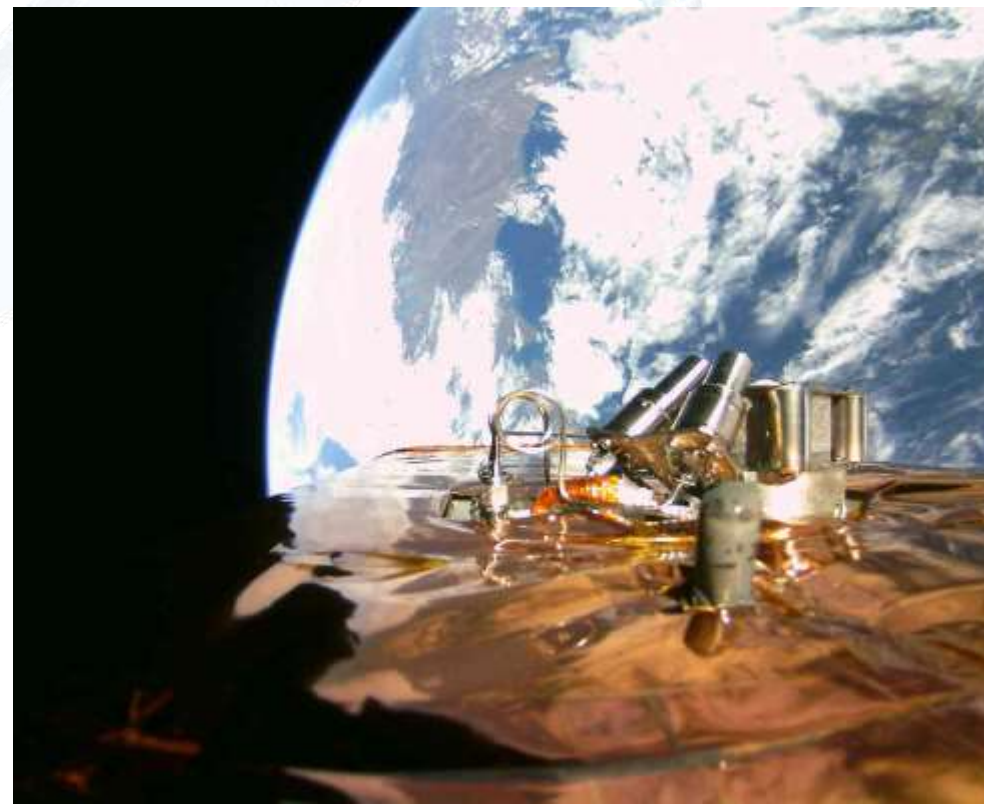
# MISSION OPERATIONS

## LEOP & Commissioning

### Mission Control Software (MCS)

- Automated all operator functions;
  - Calculating tasks parameters for GS tracking, Imaging, Maintenance, Payload data downloading
  - Task generation and transmission during overpass
  - Live telemetry view during overpasses
  - GS management
  - Whole Orbit Data (WOD) unpacking and viewing
- GUI and API interface to MCS, only human intervention currently is image scheduling

**Instant latest telemetry on cellular phone (including current location, health status, etc)**



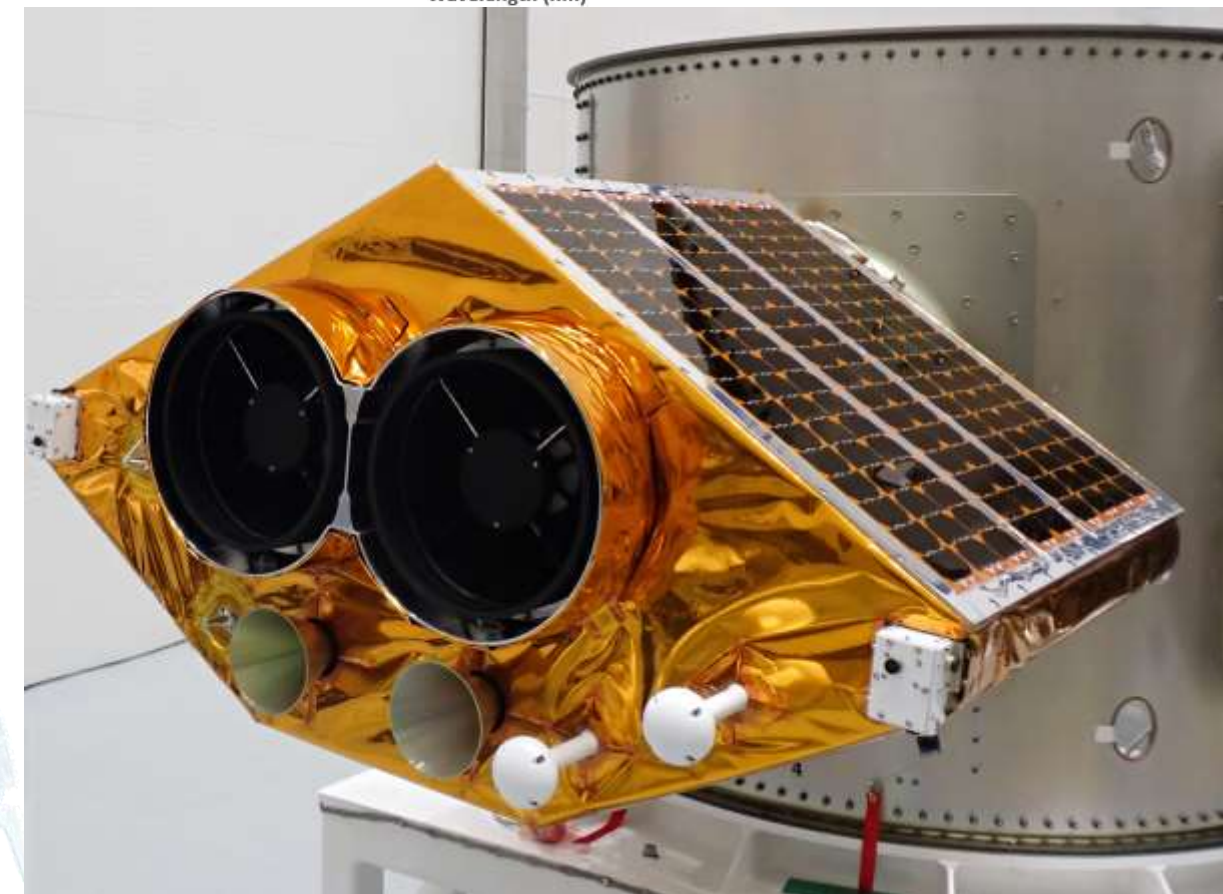
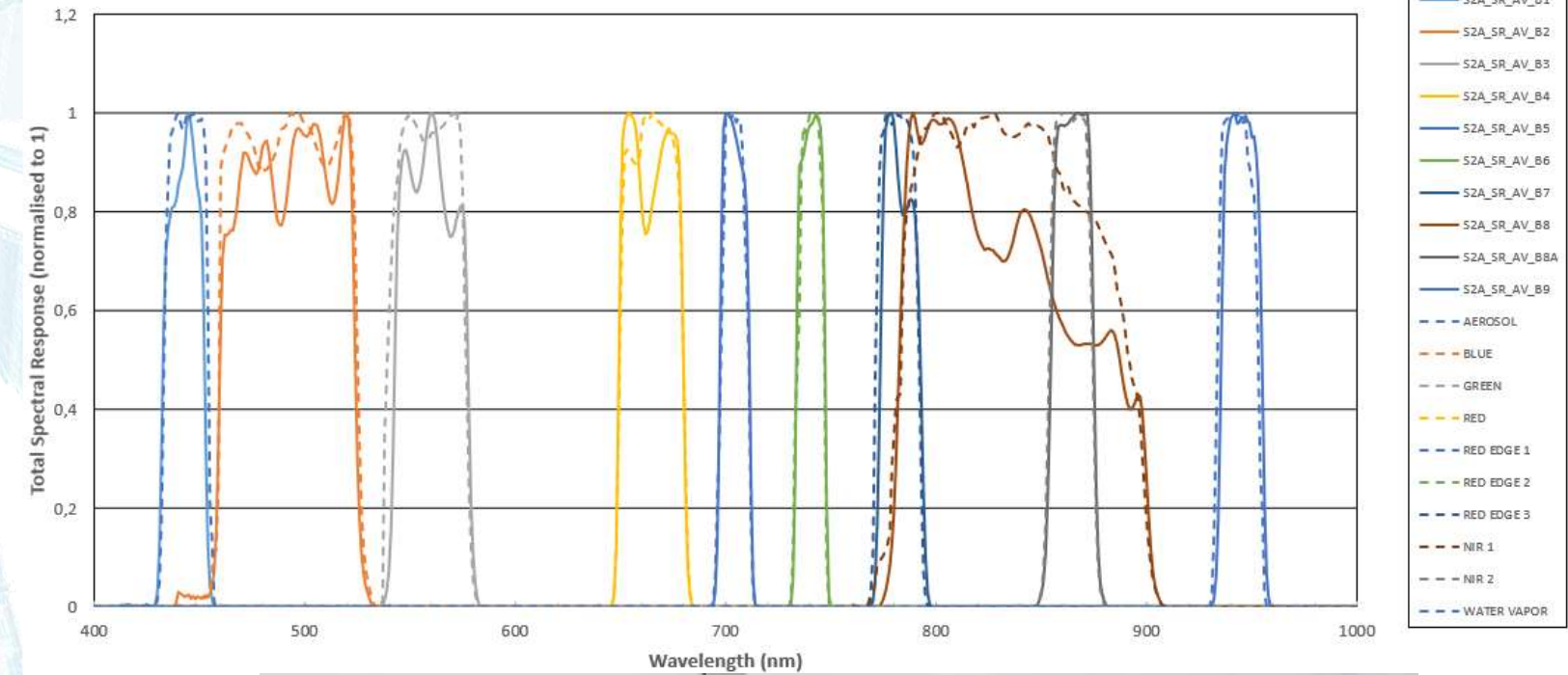


# EOS SAT-1



## μDRAGONFLY + 2 X DRAGONEYE

Mass	180 kg
Imaging Resolution	1.4 m @ 500 km
Imaging Swath	44 km @ 500 km
Spectral Bands	Panchromatic + 10 Multispectral bands Matched to Sentinel-2
Downlink	X-Band 890 Mbps (peak)
Data Storage	4 TB
Imaging Capacity	1.4 million km <sup>2</sup> per day
TMTC	S-Band 150 kbps up / 400 kbps down
Geolocation Accuracy	< 120 m (3-sigma)
Propulsion	Xenon 5 mN thrust / 17 kNs impulse
Lifetime	5 years





# EOSSAT-1 Current Status



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- Days in orbit: 240
- # of orbits: 3642 (as of this morning)
- # comm sessions: 2100+
- # ground station locations 4
- Distance travelled 145,705,494 km
- # successful images taken: 513, equating to 2,890,000 km<sup>2</sup> (big data)
- Peak downlink speed achieved 890 Mbps
- # of scripts executed: 19,000+

