

THIRD PLANET ORBITAL

COMPANY

Third Planet Orbital (TPO) is based in the heart of the UK. Drawing from the multidisciplinary experience of its founders and team, to focus on services and products designed to help customers ensure their space mission success.

TPO leverages the heritage and ecosystem of partners and suppliers to ensure precise and timely delivery of services and products - to simplify the critical path to mission success whilst containing costs and encapsulating risk.



SERVICES & TARGET AUDIENCE

Expert Advisory

TPO supports its customers, regardless of space experience, designing their missions starting from the requirements and specifications, to select the satellite platform and systems through an iterative trade-off process. Assistance ensures payloads get from concept to in-orbit operations.

FlatSat

Users can experiment and debug their design and mission parameters. TPO provides access to a hardware FlatSat platform promoting "Try-Before-You-Buy" capability, thus enabling economical Hardware-In-the-Loop design, development and testing allowing informed procurement - eliminating wasted time and spend.

for...
VISIONARIES & INSTIGATORS

Mission Creators
Payload Optimisers
Requirements Scopers

for...
SYSTEM EXPERTS

Payload Designers
Software Integrators
Development Testers

for...
INTEGRATORS & OPERATORS

Small Constellations
In-Orbit Demonstrators
Sensitive Payloads

VISION

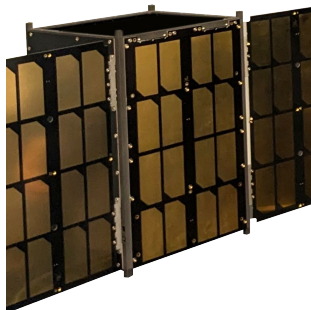
MISSION

PRODUCTS

Satellite Buses

TPO uses a 'functionally standardised' approach for the SmallSat buses it supplies, utilising flight and test proven architecture.

The satellites are effectively 'Off-The-Shelf' where known technology is employed meaning they are ready for payload integration and test with confidence of success.



CubeSat Deployers

TPO designs and builds state of the art satellite deployers (TPODs) with a simple yet robust and reliable ejection mechanism.

The driving requirements for the design include: short supply lead time, minimised integration time and effort, low mass and additional volume within the deployer to increase satellite capability.



SIMPLIFYING TIME TO MISSION SUCCESS

THIRD PLANET ORBITAL

HERITAGE & ECOSYSTEM

The team draws from its extensive experience in end-to-end space mission design and operations. The multi-industry knowledge accrued across Aerospace, Exploration, Telecoms, and top-flight Motorsport enables rapid engineering and manufacturing ecosystems to be utilised, as well as a wide range of methodologies to address and simplify complex engineering challenges.

BENEFITS

- We use expert **KNOWLEDGE**.
- We draw from broad **EXPERIENCE**.
- We know how to **HELP YOU** achieve your goals.
- We partner **WITH YOU** to make the whole supply chain work.
- We understand it is **YOUR PAYLOAD**.
- We understand it is **YOUR MISSION**.

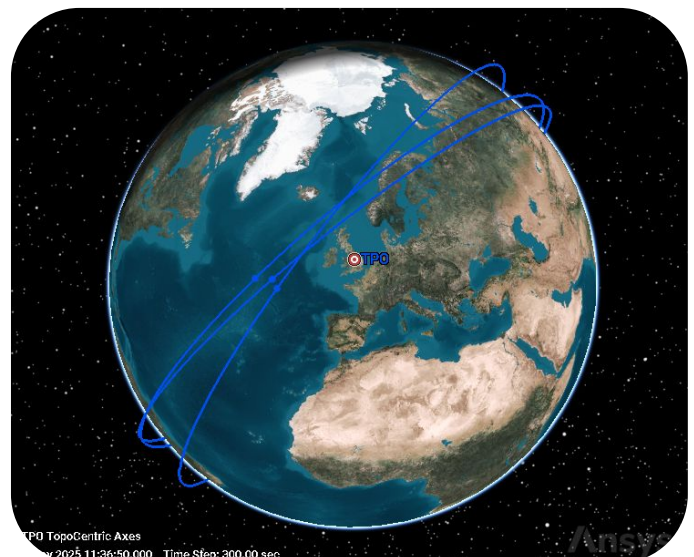
TEAM EXPERIENCE - New Space



- Complex Multi-Payload, Multi-Passenger 12U mission (scheduled launch 2026).
- Sixteen 6U satellites into LEO since 2017.
- Performing EO RF reconnaissance.
- Optimised global Ground Station Network data streaming and customer interfaces.
- System level analysis and budgeting for digital twinning activity.

TEAM EXPERIENCE - Cross Domain

- [ESA-TRP, UK-TSB, UKSA] - Ultrasonic Drill Tool - Thermal Protection System - Martian Solar Panel Clearing - Windows for Manned Spaceflight - Acoustic Fluid Manipulation - Ultrasonic Autoresonant Control.
- [BepiColombo] - Mechanical exo-structural design of Remote Interface Units - Design & manufacture of mechanicals for the MIXS instruments.
- [ExoMars Rover] - Mechanical design of Inertial Management Unit, design of {downselected} Life Marker Chip instrument.
- [MetOpSG] - Design and manufacture of the calibration rig {Structure and EGSE} for Microwave Sounder instrument.
- [TechDemoSat-1] - Mechanical design of GARASH payload.
- [Formula 1] - Design of TMG gearbox and differential 2001/2002 Seasons.
- [ESA GRAS] - Radiation analysis using Geant4-based tool.
- [Beagle-2] - Design of EDLS and Mars Express disconnect components.
- [Exploration] - Micro-robot design for archeological exploration.
- [Packaging] - Design and implementation of ultrasonic tooling for canning.
- [Oil & Gas] - Advanced deep drill tip design and testing.



SIMPLIFYING TIME TO MISSION SUCCESS