

Orbital systems
Satellites
Ground segments
Transversal competencies



Loft Orbital deploys and operates space infrastructure as a service, providing rapid, reliable, and simplified access to orbit for customer payloads. The company has developed the Payload Hub, a hardware and software interface which enables Loft Orbital to fly dedicated missions or multiple customer payloads simultaneously on a standard satellite bus design. Loft Orbital has three missions planned for 2021, and quarterly missions in 2022.

COMPETENCIES & CAPABILITIES

Our business model emphasizes standardization over customization to remove the need for non-recurring engineering (NRE). This strategy consists of three elements:

1. Develop the hardware and software abstraction layers to decouple payloads from the bus and operations.
2. Use an identical, fixed satellite bus design for each mission.
3. Bulk buy satellite bus hardware from a third-party and hold in inventory for quick deployments of customer payloads.

This approach reduces schedule uncertainty as well as overall mission risk without introducing new constraints and saving years on the schedule. Though the spacecraft may carry different payloads, it retains its heritage by remaining untouched between missions.



LOFT ORBITAL

PRODUCTS & SERVICES

Loft Orbital is a provider of space infrastructure as-a-service. Its technologies act as universal adapters to accommodate missions in drastically reduced schedules.

The Payload Hub is a modular, bus agnostic and payload agnostic interface adapter that allows a plug-and-play approach to satellite missions. It offers flexibility in satellite design, decoupling the customer's responsibility and requirements (the payload) from the satellite. This minimizes schedule and costs.

Cockpit is a first-of-its-kind mission control system. Almost all satellites use a specifically design software stack to command and control it. This has led to most organizations working with mission control software that cannot incorporate different mission requirements, ground stations, or data types, or be scaled easily without re-architecting.

Together, these core technologies enable Loft Orbital to deliver unprecedented speed-to-orbit without compromising reliability or schedule for even the most demanding customer payloads.

MAJOR SPACE PROJECTS & REFERENCES

- Partnership with Scientific Systems Company Inc. (SSCI) to fly a demonstration of the Defense Advanced Research Projects Agency (DARPA) Pit Boss mission system on one of its satellite YAM-3.
- Eutelsat onboard the first Loft Orbital missions to fly telecommunication payloads on YAM-2 and YAM-3.
- Hyperspectral mission for the UAE Government on YAM-2.
- Partnership with LeoStella to provide YAM-3 and YAM-5 buses.
- Large range of partners: ground segment providers, payloads manufacturers, launchers, etc.

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