
Viasat
+Inmarsat
INTRODUCING
INRANGE

RAPID IMPLEMENTATION OF SPACE-BASED RANGE FOR LAUNCH TELEMETRY

THE PROBLEM

Today's launch operations are significantly constrained by existing terrestrial-based telemetry solutions. In order to achieve a consistent real-time telemetry link, the launch vehicle must always be within line-of-sight to a ground station. Therefore, launches are restricted to geographical locations with available down-range infrastructure.

This dependency on ground ranges can induce high operational inflexibility and a reduction in payload launch mass. Additionally, the operational coordination of these ground stations requires significant time and cost and can cause delays in launches.

OUR SOLUTION

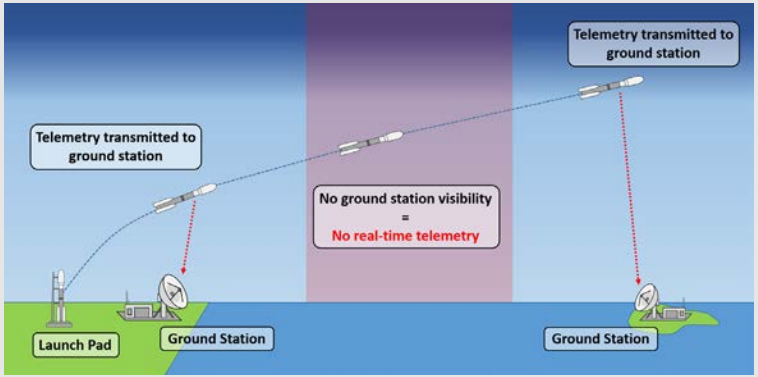
InRange solution offers a cost effective and flexible concept for rapid and responsive launch telemetry. The concept utilizes global coverage from our constellation of L-band geostationary (GEO) satellites as a data relay link for launch vehicles. With no dependency on down-range ground stations, InRange provides launch operators with complete geographical freedom for launch operations on-demand.

Furthermore, InRange will provide a commercial extension of TDRS-type of services, at more competitive prices and performance.

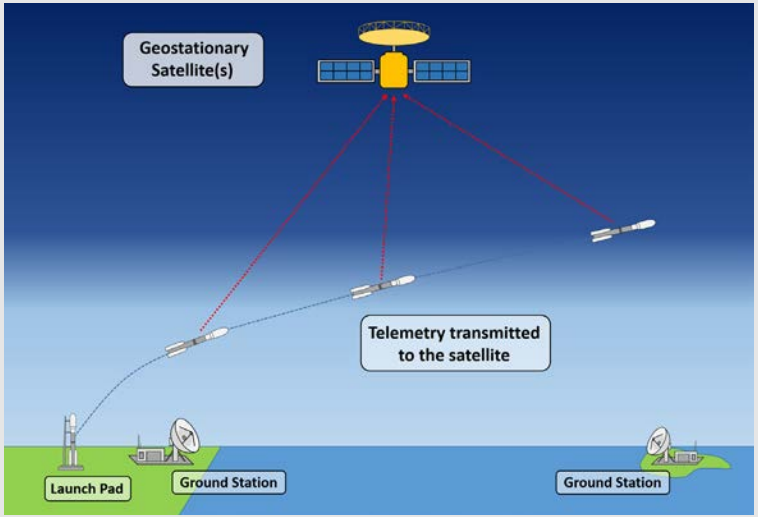
MAJOR VALUE

- Geographical freedom for launch operations on-demand
- Continuous real-time telemetry
- Opens up the capability to launch into new orbits from current launch sites
- Truly global, redundant and reliable coverage
- 99.9% reliability over the network
- Reduced operational management and cost
- Maximized launch trajectory efficiency
- Data rates 192 kbps to 768 kbps; >1 Mbps dependent on specific target trajectory and vehicle power availability

EXISTING TERRESTRIAL-BASED TELEMETRY SOLUTIONS



INRANGE SOLUTION



KEY FEATURES

- On-board terminal primarily formed of a transmitter and an array of antennas
- Composed of advanced technologies with proven flight heritage adapted to be compatible with Inmarsat's network
- Solution adopts robust standard protocols

TO LEARN MORE

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INRANGE SOLUTION SYSTEM ARCHITECTURE