



# INMARSAT

## COMMUNICATIONS SERVICES PROJECT PARTNERSHIP

NASA's Communications Services Project (CSP) is pioneering a new era of near-Earth space communications by partnering with commercial industry to enable innovative networking for future missions. CSP will leverage \$278.5 million across six funded space act agreements with commercial industry to facilitate demonstrations, evaluate service performance, and identify future services and capabilities to meet mission needs.

Inmarsat Government Inc., a Viasat business, has been awarded \$28.6 million to demonstrate a commercial radio frequency L-band relay network in geostationary orbit. Services will include low-rate satellite communications for

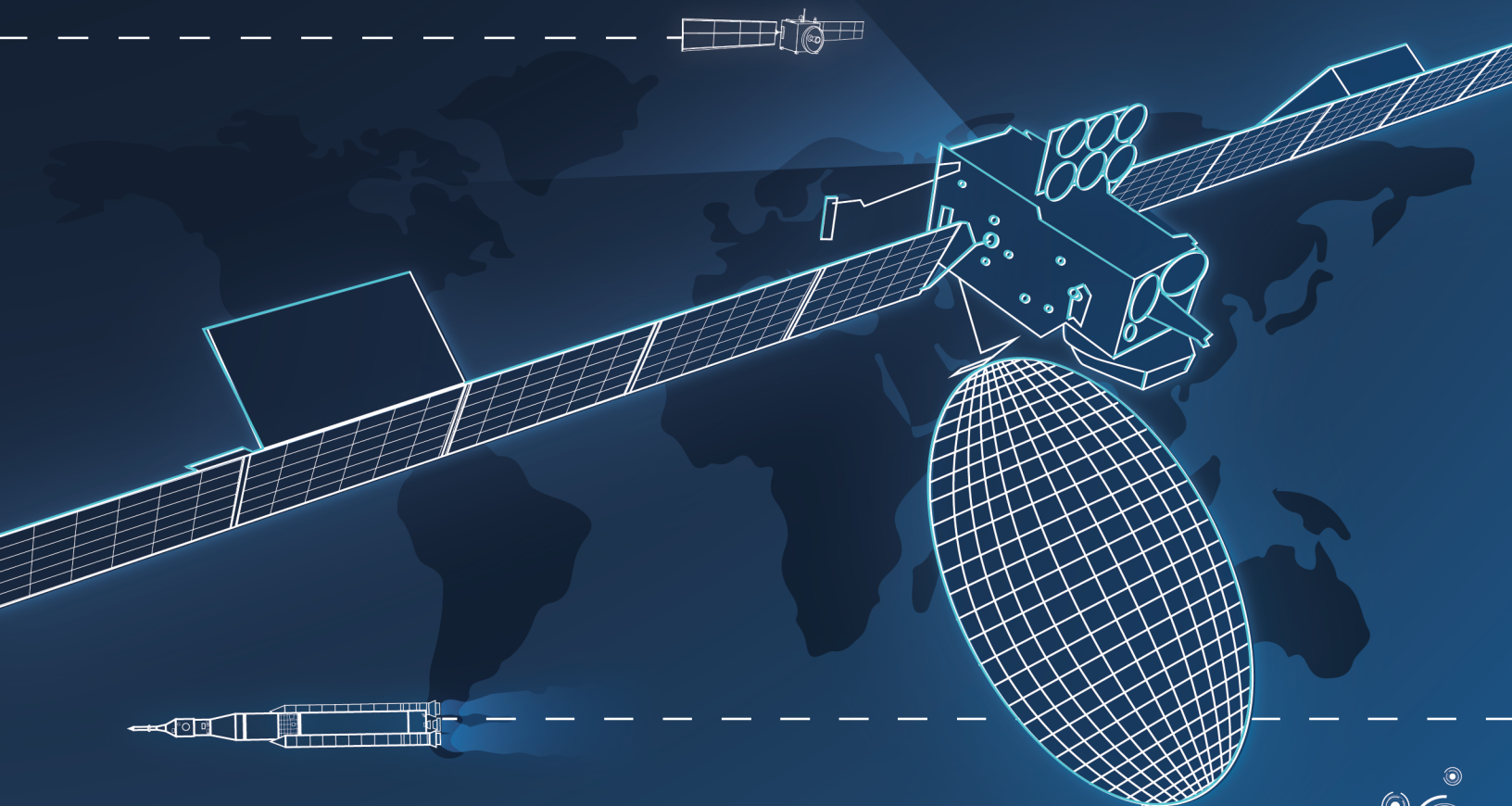
### VISION

Inmarsat Government will demonstrate a variety of space-based applications enabled by their established ELERA worldwide L-band network and ELERA satellites.

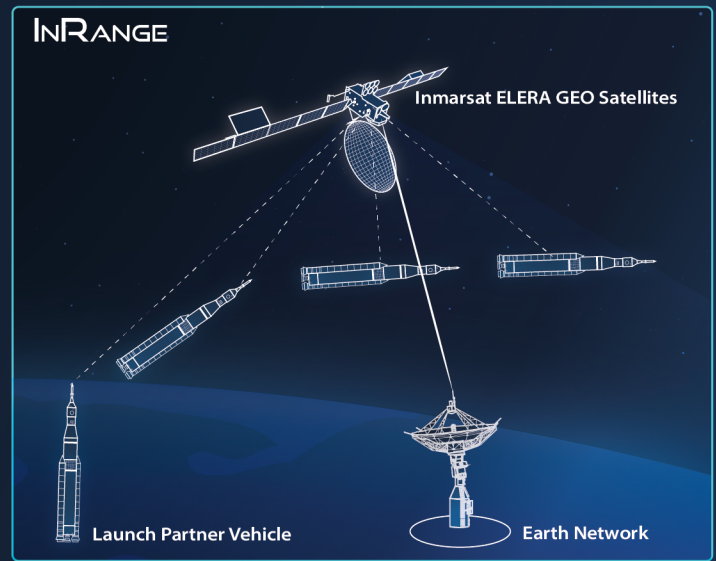
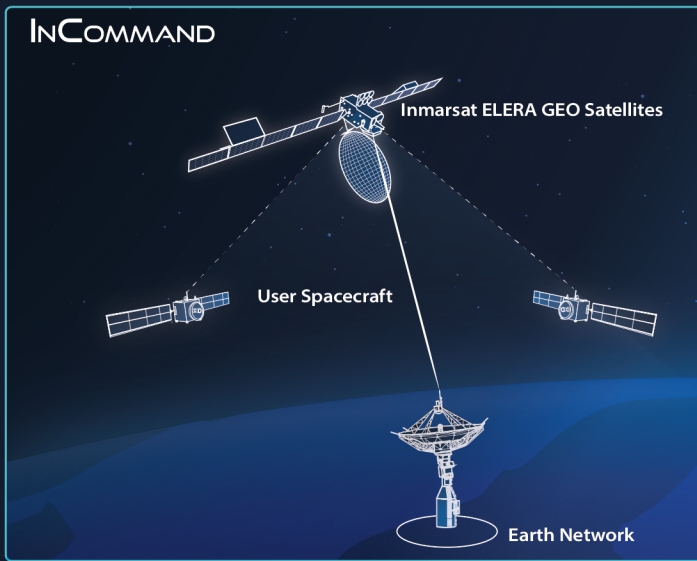
For launch support, the InRange capability is designed to provide rapid, responsive, and cost-effective launch telemetry from space, eliminating the need for costly ground-based launch infrastructure. InRange utilizes coverage from the ELERA worldwide L-band GEO satellites as a data relay link for launch vehicles. InRange is expected to alleviate the requirement for a large network of down range ground stations to

maintain telemetry coverage and help to remove gaps that exist with terrestrial coverage of launches when switching from one ground station to the next.

For space relay services, the InCommand solution is designed to allow commanding and telemetry on-demand for space assets operating below geostationary orbit. By providing real-time connectivity for space relay, InCommand is expected to remove the dependency on ground infrastructure by delivering a highly efficient, cost-effective, and time-critical space-based solution for LEO satellites.



## NETWORK ARCHITECTURE



Inmarsat Government will leverage their established ELERA L-band network and satellite constellations to support user satellite communication needs. The revolutionary InRange and InCommand capabilities powered by ELERA is expected to provide critical support for launch and space relay services.

## KEY FEATURES

- World-wide L-band network with 99.9% network reliability
- Eliminates dependency on ground infrastructure
- Continuous near real-time telemetry
- Rapidly deployable using existing space and ground infrastructure
- Decreased “black-out” communications phases post launch

## LEARN MORE

CSP is managed by NASA's Glenn Research Center in Cleveland, Ohio under the direction of the Space Communications and Navigation (SCaN) program. SCaN serves as the program office for all of NASA's space communications activities, presently enabling the success of more than 100 NASA and non-NASA missions.

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