

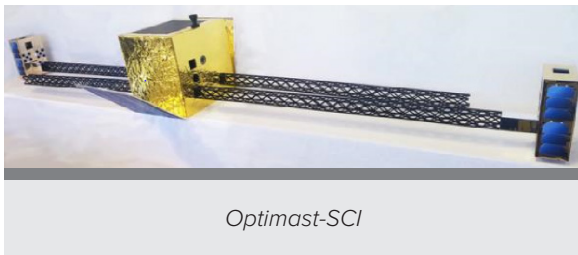
OPTIMAST-SCI (OSCI)

SELF-ASSEMBLING INTERFEROMETRY



Made In Space, Inc. (MIS) develops state-of-the-art space manufacturing technology to support exploration, national security, and industrialization of the space environment. MIS has worked with NASA, DoD, and various commercial entities on space-related projects.

OPTIMAST-SCI OVERVIEW



Optimast-SCI

Equips an ESPA-class satellite bus with the ability to position outboard mirrors for optical interferometers with a separation of up to 50 meters.

Enables the deployment of large

primary trusses unconstrained by launch load or volume restrictions that meet operational requirements for the precise angular resolutions.

Meets science requirements for the high angular resolutions (less than 0.3 arcseconds) necessary to detect planets near bright stars and measure individual objects in star clusters. Enables a critical Space Domain Awareness (SDA) capability for future cislunar operations and other DoD objectives.

TECHNOLOGY DEVELOPMENT

Utilizing technologies derived from Archinaut, a NASA Tipping Point award winner, large infrastructure is manufactured on orbit and enables a multitude of missions. The overall Archinaut system is at TRL 6 and will be at TRL 9 after the Archinaut One mission in 2022. The Optimast manufacturing system is at TRL 6 with successful thermal vacuum testing of extended structure manufacturing.

Optimast uses Archinaut technology to manufacture on-orbit the extended structures, 10-50 m, to offset the outboard mirror units.

Future Mission Possibilities:

- + *Space observatories such as Space Infrared Interferometric Telescope (SPIRIT)*
- + *SSA missions for DoD defense operations. Customers for SSA systems may include the Air Force Space Development Agency, Air Force Research Laboratory (AFRL), Space Command, and the National Reconnaissance Office (NRO)*
- + *Department of Defense missions focused on space activities*
- + *Space traffic monitoring services provided by civil authorities or private companies*