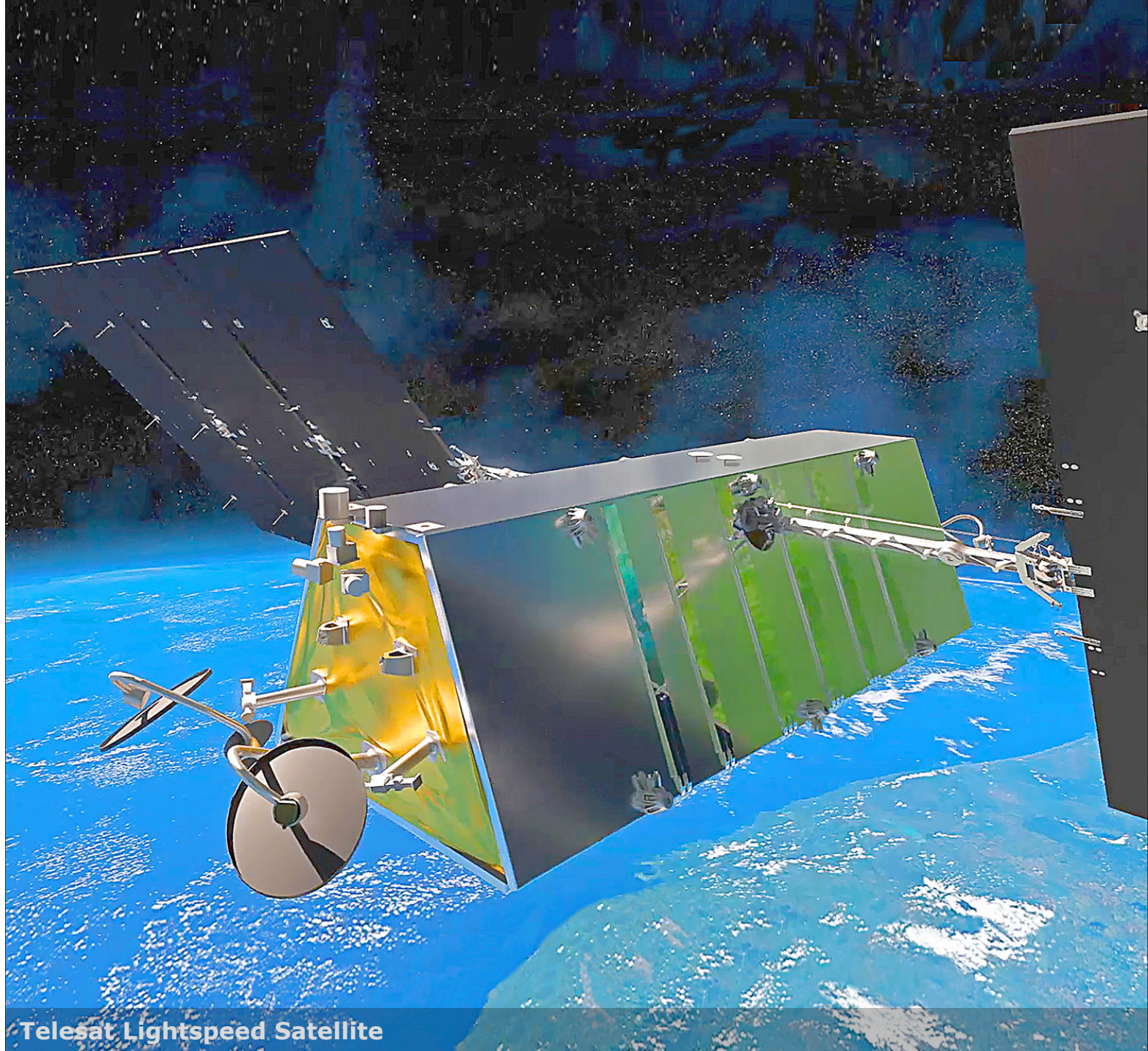


Telesat Lightspeed Constellation

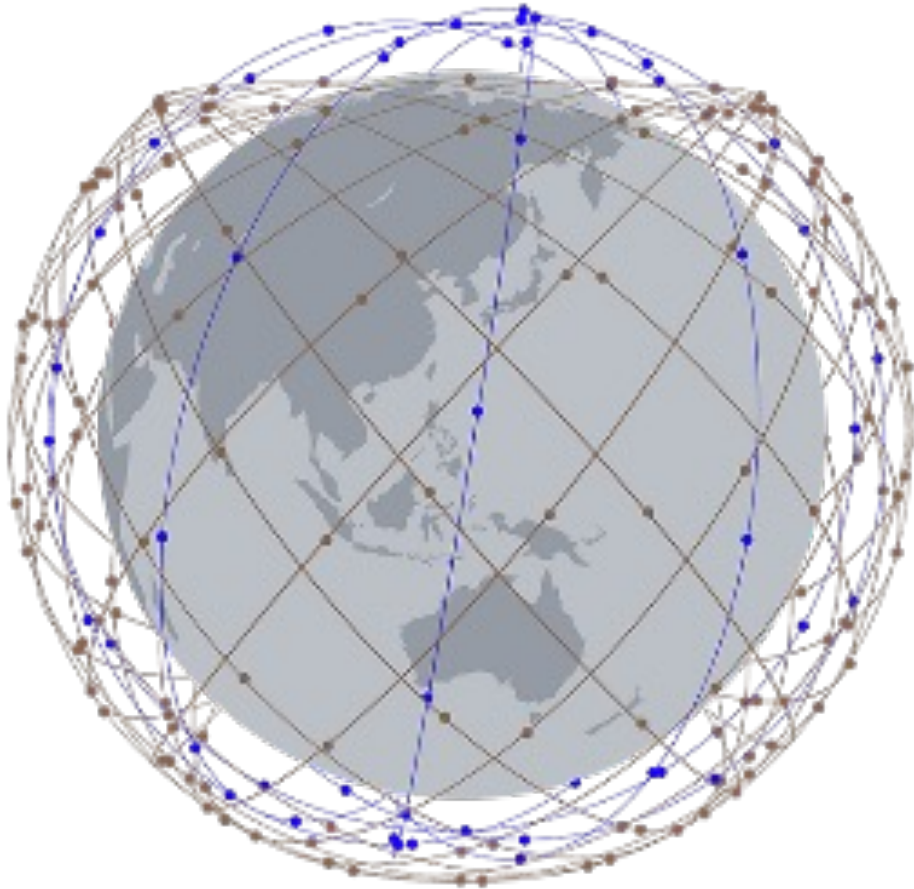
TELESATTM

28 June 2022



Telesat Lightspeed Satellite

Telesat Lightspeed Constellation



■ Inclined Orbit

■ Polar Orbit

- ▲ Constellation is optimized for coverage and capacity with a minimum number of satellites
- ▲ Initial constellation will have 198 satellites
 - 78 Polar Satellites at 1,015 km
 - 120 Inclined Satellites at 1,325 km
- ▲ High-capacity Ka-band satellites; initial constellation has approximately 10 Tbps total capacity
- ▲ Constellation is designed to scale incrementally to higher capacity by launching additional satellites as required
- ▲ First growth increment, plan to add capacity by launching 100 additional inclined satellites to get to 298 total
- ▲ Telesat has filed with regulators for further incremental expansion up to 1,671 satellites

Telesat has been an Innovator in Space for 53 Years

- ▲ We operate our own fleet of 14 GEO satellites, plus one low earth orbit satellite LEO Phase-1. We also operate a number of satellites for other service providers.
- ▲ Telesat has always been a good citizen in the space environment. We take care regarding launch, debris, deorbit, interference and other considerations.
- ▲ We are taking into account these same considerations as we develop our Lightspeed Constellation, for example:
 - **Orbit/Deorbit:** inject into low altitude orbit; fully redundant navigation and propulsion systems for active deorbit; a grappling fixture to allow for a “space tug” to connect
 - **Debris:** inert fuels, no pyro-devices – all electromechanical deployments; vehicle design for total destruction upon reentry
 - **Glint:** requirements to minimize reflected light; satellite body shaped to reflect light away from earth; yaw steering to minimize reflections off solar arrays, smaller constellation; altitudes all above 1000 km reduces intensity of any light that does reflect
- ▲ Telesat wishes to protect the space environment for everyone who relies on space for science, communications, exploration and all other activities that make life better for us down here on earth.