About SSC

Swedish Space Corporation (SSC) provides advanced space services to public and private organizations worldwide. Built on decades of experience, we offer proven expertise in space engineering, satellite ground station services and launch services.

We help Earth benefit from space.

SSC Lunar service

SSC is the only commercial company who has been supporting lunar communications for more than a decade.

SSC has supported in total more than 10 lunar missions all the way back to the Apollo-program. We currently support the LRO mission (NASA) and have recently supported ISRO and SpaceIL in their lunar endeavors.

We are proud to say we have a Lunar Service of the highest quality, using a global optimized ground network of SSC stations and partner stations.

Our Network ensures reliable operations of your lunar vehicle.

Contact information
For further information please contact info@sscspace.com and we would connect you with a representant from our regional sales or engineering team.
The SSC Lunar service is highly reliable and cost-effective, utilizing an unparalleled network of worldwide locations.

SSC’s Global Ground Station Network is designed to provide comprehensive communications and ground system support to a variety of missions. The network has been constructed for high availability in a multi-mission concept.

Full range of services
- Establishment
- Mission control
- Flight dynamics
- Monitor & Control
- Launchpad support
- Launcher tracking
- LEOP
- Re-orbit to the Moon
- Re-entry to lunar orbit
- Landing
- Lander / Rover support

Included in the service
- Scheduling support
- Telemetry playback
- Ground Network Communication
- Reporting
- Localization Service
  - Angular
  - Doppler
  - Ranging
- Online-voice support

Options in the service
- Data storage
- Engineering support

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Antenna & band selection

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Antenna performance

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<th>Earth Orbit</th>
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X = Included  O = Optional

Communication - SSC Network to PoP

SSC stations
Dual MPLS

Partner stations
MPLS + Internet VPN

SSC MPLS Specification

| Latency | ≤ 45 ms |
| Jitter  | ≤ 15 ms |
| QoS     | Available |

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The last image taken from SpaceX's Beresheet spacecraft, of the moon’s surface.
Zoom

Customer Case SpaceIL – April 2019

- LEOP, Earth orbit, lunar orbit, re-entry, landing
- Telemetry, Command and accurate Range and Doppler data for a very precise orbit determination during the journey to moon and during the last week after lunar orbit insertion.
- SSC was prime for the whole mission
- Additional subcontracted partners
- Partner antennas for image reception mainly after landing (supporting higher data rates)

With the SSC Lunar service, SpaceIL has been able to maintain communications with the spacecraft around the clock using the strategically located ground antennas that comprise SSC’s Global Ground Station Network. This includes stations in Australia, Chile, Hawaii, South Africa, Sweden and the collaborative German Aerospace Center (DLR).

“SSC was instrumental in developing a communication solution for our mission to the Moon”

Eran Shmidt
Deputy Manager of SpaceIL Program
Head of SpaceIL Ground Segment

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