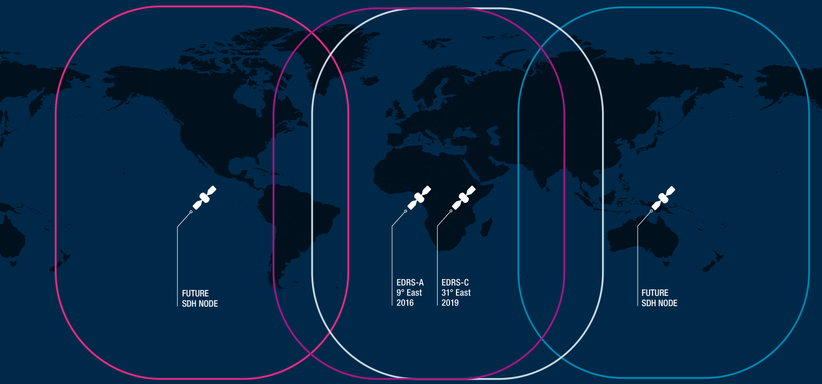
The SpaceDataHighway™ (SDH) is an innovative laser data relay service, enabling Beyond Line Of Sight (BLOS) capabilities for transferring data for space, airborne, ground & maritime users.

Laser relay delivers unprecedented bandwidth and protection.



Why choose Laser Communications for your mission

- After decades of analysis and testing free-space optical communications has matured, and is now evolving towards customisation and broadband applications (Gbps)
- Finite amount of radio spectrum available for high bandwidth applications
- Independent from sovereign with local ground stations
- Overcrowded RF spectrum is prone to interference, interception, or jamming
- Laser Communication feature Low Probability of Intercept/ Detection (LPI/LPD)
- Broadband Communication demand is insatiable (e.g. unmet demand with higher resolution and next-generation sensors)

Want to learn more about SpaceDataHighway?

securecommunications.airbus.com (in) **Airbus Defence and Space**

DEFENCE AND SPACE
SECURE COMMUNICATIONS

SpaceDataHighway
Laser Communications Services

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AIRBUS

AIRBUS

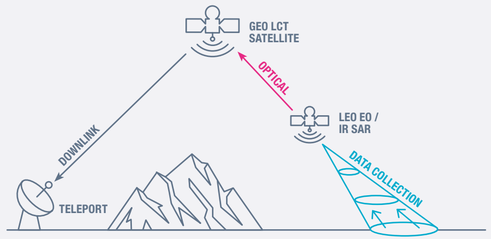
Proven Capability: Outstanding Success to the first Customer of the SpaceDataHighway

>40,000
SUCCESSFUL RELAY LINKS VIA EDRS-A SINCE 2017

The SpaceDataHighway service utilises the Airbus owned and operated EDRS laser communication infrastructure to enable the transfer of data from LEO satellites. Leveraging on Laser Terminal technology, SpaceDataHighway data relay services enhance capabilities of LEO satellites through increased data acquisition, agile tasking, and real time delivery.

The four Sentinel-1 & 2 satellites, the European Commission's Earth observation programme, are equipped with laser communication terminals that have significantly accelerated the delivery of large volumes of time-critical data to Earth monitoring centres.

- Over 40,000 successful relay links via EDRS-A since 2017
- SDH has delivered >99.5% service availability
- Sentinel 1 data collection doubled
- Sentinel 2 refresh time halved



Remote Sensing Satellite Real Time Delivery

High volume delivery of LEO EO/IR SAR data to expand collection capabilities.

Near instantaneous delivery of sensing satellite data to enable rapid decision making

Expanding the SpaceDataHighway service for third party customers
EDRS-C, the second GEO-stationary satellite of SpaceDataHighway network was launched in 2019. Through doubling SpaceDataHighway capacity, extending availability and global coverage, Airbus further strengthens its commitment to serving Copernicus existing program and as well as future Sentinel missions. The additional capacity brought by EDRS-C will also enable Airbus to accommodate further customer needs for very high bandwidth data connectivity.

A fully End-to-End Airbus Capability
From 2021, onwards, Pleiades Neo, Airbus' most advanced optical Earth Observation constellation with four identical 30cm resolution satellites will be the next satellites to benefit from SpaceDataHighway's infrastructure.
As an integral part of Pleiades Neo full end-to-end value proposition, SpaceDataHighway will further optimise mission reactivity

- Providing NRT data delivery, minimising latency of data collected within and Beyond Line Of Sight
- Up to 90% latency reduction and reduction of delay time in tasking when compared to traditional ground services
- Increasing capacity providing for real time tasking and data offload at 1.8Gbps.

Enhancing your future mission success

Enabling high-bandwidth protected communications to support next generation platforms and future multi-domain operations.

Ultra-Bandwidth

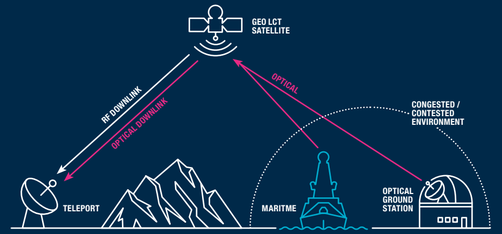
- Data transfer bandwidth of up to 1.8Gbps
- Uncompressed ISR sensor data available in real-time
- Sensor suite dissemination capacity
- Ability to transfer up to 19+ TB per day
- Up to 24 hours link duration

Enabling High Performance Applications

- Airborne tactical and strategic gateway: optimized
- Use of secured BLOS and LOS comms
- Persistent airborne aggregation node for OpSEC,
- InfoSec, ISR C&C missions, LTE nodes
- Robust and agile network infrastructure

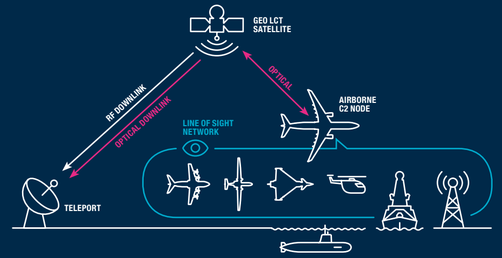
Protected Communications

- Intrinsic anti-jam characteristics
- Protected Low Probability of Intercept/Detection (LPI/LPD)
- Air-to-space connectivity to repatriate user data
- Data Backhaul for ISR and AWACS



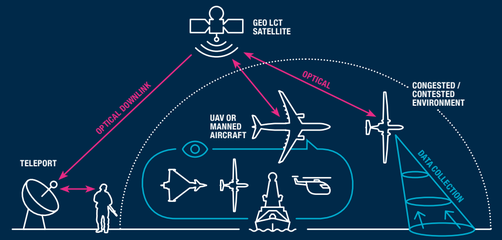
Protected Secure Data Backhaul

Secured, connectivity to repatriate vast amount of sensitive data from austere environments



Combat Cloud / Airborne Command & Control

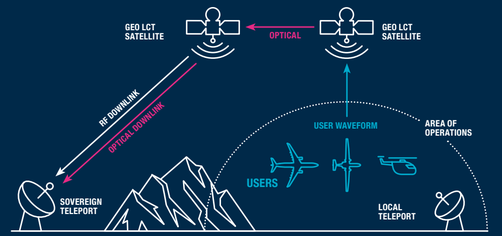
Simple secure beyond line of sight command and control providing operational flexibility



Protected Airborne ISR & Sensors

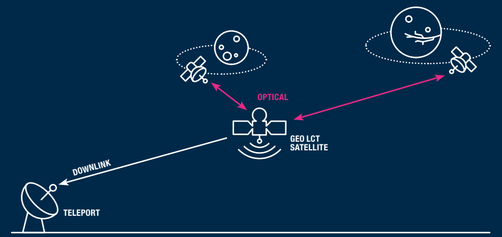
Secure LPI/LPD Airborne communications for combat cloud, real time ISR or sensor backhaul

Enabling your future battlespace requirements



Crosslinks

Protection of critical information with assured delivery outside of the Area of Operation



Lunar / Deep Space Data Backhaul

High bandwidth communications for communications beyond GEO