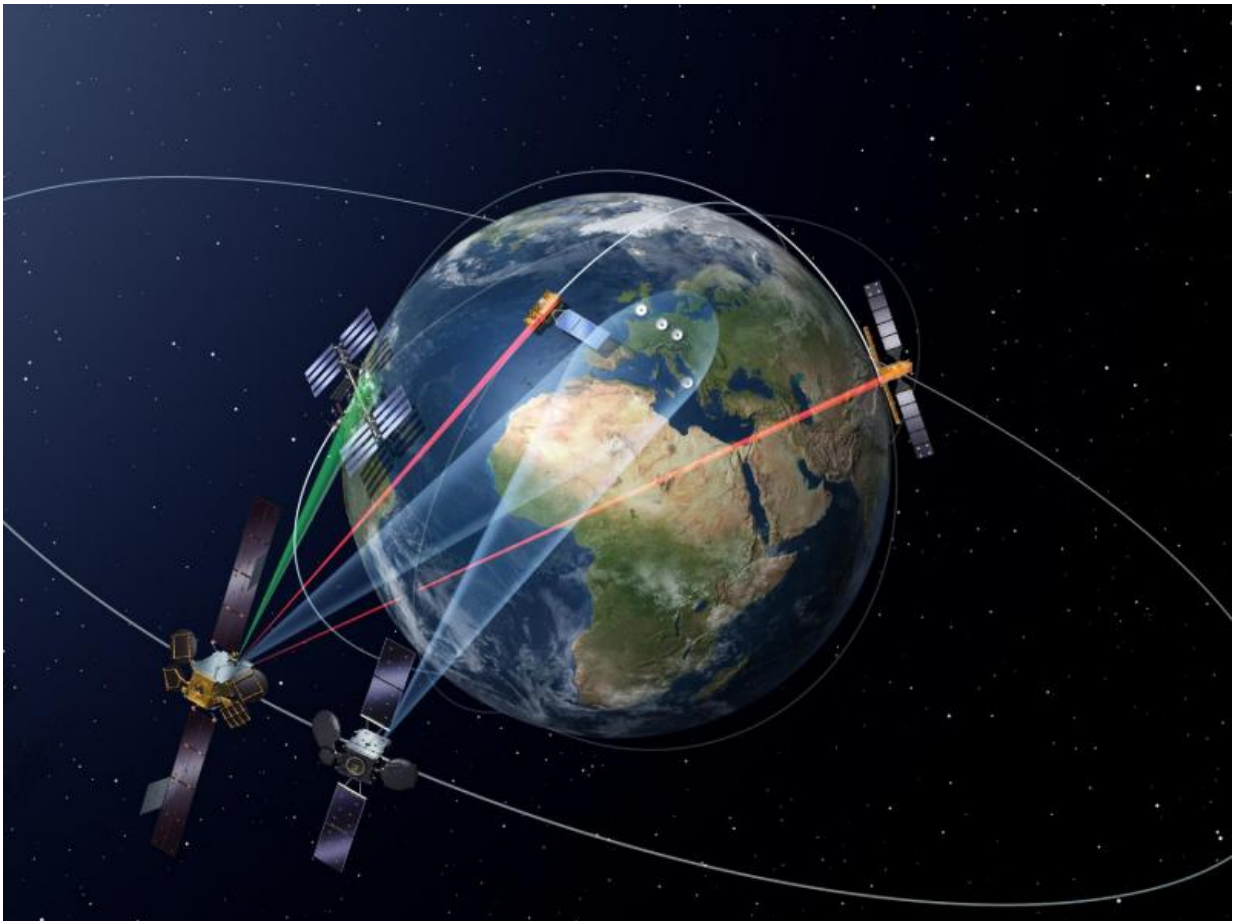


Counting down: First SpaceDataHighway laser node set for launch

January 25 2016



The European Data Relay System (EDRS) is designed to transmit data between low earth orbiting satellites and the EDRS payloads in geostationary orbit using innovative laser communication technology. Composed of a hosted payload (EDRS-A) on a commercial telecom satellite and a dedicated satellite (EDRS-C) in geostationary orbit, EDRS will dramatically increase the speed of data transmission for satellites in lower orbits and airborne platforms to relay their

information to users on the ground. Nicknamed the 'SpaceDataHighway' by industry, EDRS complements current downlink infrastructures and allows for near-realtime services on a global scale. EDRS-A is planned for launch in the first quarter of 2015, with EDRS-C to follow a year later. The system has Mission Operations Centres in Ottobrunn (DE) and Redu (BE), Spacecraft/Payload Control Centres in Oberpfaffenhofen (DE) and ground stations in Redu (BE), Harwell (GB) and two in Weilheim (DE). Credit: ESA

The first node of the European Data Relay System will be launched on 29 January from Baikonur, Kazakhstan.

EDRS is one of a kind and ESA's most ambitious telecom programme to date, creating the means for an entirely new market in commercial satellite communications.

Dubbed the 'SpaceDataHighway', EDRS will uniquely provide near-realtime Big Data relay services using cutting-edge laser technology. It will dramatically improve access to time-critical data, aiding disaster response by emergency services and maritime surveillance, for example.

Airbus Defence and Space are ESA's programme partner and operator of the service. The first node, called EDRS-A, will begin relaying information this summer from its first customers: the ESA/European Commission Copernicus Sentinel-1 and -2 satellites.

From that point on, ESA and Airbus will use the first and future EDRS nodes to increase the time low-orbiting satellites, the International Space Station and unmanned aircraft can send data to Earth from intermittent to near-continuous, opening up a wealth of new possibilities.

Once fully deployed, EDRS will relay up to 50 terabytes of data from [space](#) to Earth every day. It will eliminate the downlink delay currently

prohibiting immediate access to satellite information and phase out Europe's reliance on foreign ground stations.

EDRS-A will be launched as a hosted payload on the Eutelsat-9B satellite on 29 January at 22:20 GMT (23:20 CET, 04:20 30 January local time) on a Proton rocket, with [satellite](#) separation around 9 hours later. In-orbit tests will begin on the EDRS laser payload three weeks later. The payloads were built by Airbus subsidiary TESAT-Spacecom and funded by the DLR German Aerospace Center Space Administration.

More information: www.esa.int/EDRS

Provided by European Space Agency

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