

Press Release

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France-India space cooperation First Argos4 instrument to fly on Oceansat3 satellite set for launch in January 2020

Argos is the only global satellite-based data collection and location system of its kind dedicated to studying and preserving the environment. Created in 1978 on the initiative of CNES and the U.S. National Oceanic and Atmospheric Administration (NOAA), it is today operated by CLS (Collecte Localisation Satellite), a subsidiary of CNES. Since Argos entered service, three generations of instruments have succeeded one another. Eumetsat and the Indian Space Research Organization (ISRO) joined the programme in 1997 and 2007 respectively.

Measuring variations in ocean temperature, currents and salinity, monitoring volcanic activity, tracking ice cover and wildlife migration, and supporting maritime transport management are some of the many applications that Argos serves. The Argos system is built around radiotransmitters whose signals are received by dedicated instruments flying on Earth-orbiting satellites. These signals are recorded and then downlinked to receiving stations and data centres for processing.

The first fourth-generation Argos4 instrument is set to fly in January 2020 on India's Oceansat3 satellite, which will serve marine biology and ocean-observing and monitoring applications. Delivery of the payload module is scheduled this June. CNES is system architect and overseeing development of the ground and space components, in partnership with a consortium of Toulouse-based SMEs—Mecano ID, Soterem, Alten SO, Nexio Steel, Scalian and NEXEYA—federated under the NewSpace Factory banner. In its role nurturing the space SME industrial base, CNES is giving close support to these firms to help them hone their skills. The instruments are being supplied by Thales Airborne Systems. Argos4's objective is to assure continuity of the Argos2 and Argos3 missions while offering better performance and capacity, thanks chiefly to a wider range of frequencies.

Alongside this fourth generation of instruments, CNES is investing in the future to develop the Argos-Neo demonstrator, a miniaturized Argos4 instrument built with commercial-off-the-shelf telecommunications macrocomponents. Argos-Neo will fly on the ANGELS nanosatellite scheduled to launch at the end of this year.

France and India have established a longstanding partnership like no other in space. This cooperation has left an indelible mark on their relations, encompassing many areas of science, technology and applications, notably to develop sounding rockets and liquid-propulsion engines, to fly payloads, build joint satellites, devise training programmes, conduct satellite communications experiments and launch satellites.

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