

Press Release

Airbus will support France and India to monitor climate change with TRISHNA

[@CNES](#) [@AirbusSpace](#) [@ISRO](#)

Paris, 20 April 2020 – The French Space Agency (Centre National d'Etudes Spatiales, CNES) has recently signed a contract with Airbus Defence and Space for the development and manufacture of the thermal infrared instrument for the TRISHNA satellite.

TRISHNA (Thermal infraRed Imaging Satellite for High resolution Natural resource Assessment) will be the latest satellite in the joint Franco-Indian satellite fleet dedicated to climate monitoring and operational applications. CNES and ISRO (Indian Space Research Organisation) are partnering on the development of an infrared observation system with high thermal resolution and high revisit capability including a satellite and associated ground segment.

TRISHNA observations will enhance our understanding of the water cycle and improve management of the planet's precious water resources, to better define the impacts of climate change, especially at local levels.

In the international partnership workshare, ISRO will provide the platform, the visible and short wave infrared instrument and will be the prime contractor for the satellite, while CNES is co-responsible for the mission and will provide the thermal infrared instrument, to be developed by Airbus. The ground segment is shared between both countries.

For this mission, Airbus is leveraging the latest innovations and synergies from other programmes (IASI-NG, CO3D...) to offer an affordable high performance instrument, with the aim of encouraging development of a commercial market.

Measuring surface temperatures provides information on hydric stress - a lack of water - and its impact on the vegetative cycle, and this monitoring of water and energy cycles is one of the main objectives of the mission, to be applied particularly in agriculture and hydrology. This mission will also serve numerous other applications: surveillance of continental and coastal waters, follow up of urban heat traps, risk monitoring (fire detection and volcanic activity), study of the cryosphere (glaciers, frozen lakes) and radiation budget assessment.

TRISHNA represents a significant step forward, both in terms of resolution and refresh rate, compared with existing missions, improving research opportunities and enabling further development of applications.

While existing missions are limited in terms of resolution (above 1km) and with revisit only every few weeks, TRISHNA will image the Earth every three days, at 50m resolution, observing a wide temperature range, from approx. -20°C to +30°C, with high precision (0.3°C).

Jean-Marc Nasr, Head of Space Systems at Airbus said: "Thanks to ambitious science missions like TRISHNA, our industry has reached a technological maturity that opens up a

Press Release

new era of commercial observation of the Earth and all related applications. France's world-leading expertise in the Earth observation export market, combined with the unmatched efficiency and ambition of the Indian Space industry is going to bring thermal infrared imagery to a new level. This will enable breakthrough applications in agriculture, urban and coastal zone management, meteorology, climate science and many commercial applications."

* * *

About Airbus

Airbus is a global leader in aeronautics, space and related services. In 2019 it generated revenues of € 70 billion and employed a workforce of around 135,000. Airbus offers the most comprehensive range of passenger airliners. Airbus is also a European leader providing tanker, combat, transport and mission aircraft, as well as one of the world's leading space companies. In helicopters, Airbus provides the most efficient civil and military rotorcraft solutions worldwide.

Media contact

Guilhem BOLTZ

guilhem.g.boltz@airbus.com

+33 (0)6 34 78 14 08

This and other press releases and high resolution photos are available on: [AirbusMedia](#)