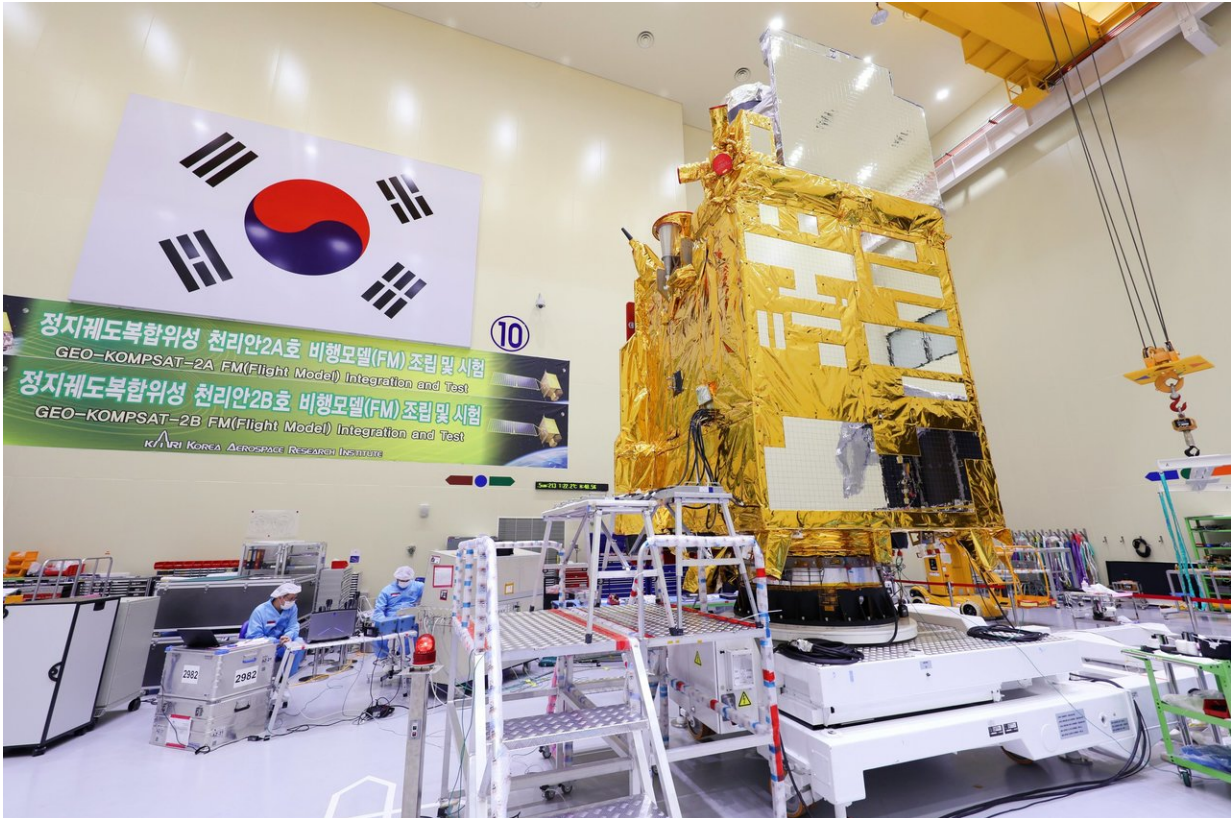


Space weather 'piggyback'

December 6 2018



Credit: KARI

The first ESA-funded space weather monitoring instrument was launched on 4 December 2018, hitching a ride on South Korea's new geostationary satellite, GEO-KOMPSAT-2A – the Geostationary Korea Multi-Purpose Satellite-2A.

The satellite, seen in this image, was lofted into orbit on an Ariane rocket from Europe's Spaceport in Kourou, French Guiana, and will provide meteorological monitoring over the Asia-Pacific region as well as data on space weather.

'Space weather' describes the constantly changing conditions in space as a result of the unpredictable behaviour of our active Sun.

This dynamic solar activity changes the [space environment](#), causing variations in magnetic and electric fields, and levels of high-energy particles and radiation around our planet. Such changes can cause impair satellites, disturb telecommunication and [satellite navigation](#), and damage with crucial infrastructure on Earth, such as power grids.

ESA's Service Oriented Spacecraft Magnetometer (SOSMAG) instrument has four tiny sensors that will measure Earth's magnetic field and provide data on how space weather affects it.

The SOSMAG kit is designed ultimately to be mounted on a variety of different spacecraft, in an array of orbits, which together will give a fuller picture of Earth's [space weather](#) environment. These 'hosted payloads' boost efficiency and reduce cost, while providing critical data to be fed into ESA's Space Weather Services Network.

Find out more about the network, ESA's future Distributed Space Weather Sensor System, and the upcoming Lagrange mission to monitor the Sun, all part of the Agency's plan to monitor hazards in space and one day to mitigate them.

Provided by European Space Agency

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