

Media release

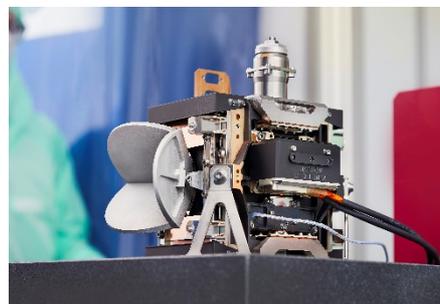
Advanced Swiss technology for measuring global warming

Neuchâtel, 3 December 2019 – From 2 to 13 December, Madrid is hosting the annual United Nations Climate Change conference – the COP25. CSEM, which is headquartered in Neuchâtel, is marking this event by emphasizing the decisive role played by Swiss technology in the measurement by satellite of global warming and the observation of associated meteorological phenomena. Instruments resulting from Swiss research programs are contributing to the provision of critical data for meteorologists and climatologists.

High-performance instruments resulting from Swiss technological research programs are contained in the three MetOp meteorological satellites placed in heliosynchronous polar orbit between 2006 and 2018. Developed jointly by the European Space Agency (ESA) and the European organization EUMETSAT, the MetOp satellites will generate critical observation data on the evolution of the climate over the next few years, thanks in particular to the Infrared Atmospheric Sounding Interferometer (IASI), created by Thales Alenia Space. This device would be partially inoperative without the use of a high-precision instrument called “Corner Cube Mechanism,” developed by CSEM in close collaboration with various Swiss SMEs working at the cutting edge of technology. These “Corner Cube Mechanisms” enable the observation in real time of the IR spectrum and thus measure the quantity and temperature of the planet’s water vapor, the proportion of which depends on climate change, and influences the latter.

From 2021, three pairs of new meteorological observation satellites will be positioned in a geo-stationary orbit. The mission – called MTG (Meteosat Third Generation) – will provide much more precise data on the evolution of the climate, in particular on atmospheric pollution and the micro-particles present in the atmosphere. It will also enable the observation, with great celerity, of disorderly weather patterns linked to warming, and allow warnings to be communicated to those countries affected, thereby enabling preventive measures to be taken as early as possible. The MTG satellites will also be equipped with new generation “Corner Cube Mechanisms” perfected by CSEM and its Swiss partners.

The scientists and experts at CSEM are fully engaged with Swiss research in the development of new technologies in such domains as space observation, meteorological analysis, renewable energies and computing. They will be delighted to respond to your questions on their contribution to meteorological and climate forecasting, as well as on their many other projects associated with climate change, during the whole of the COP25 summit and beyond..



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