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CNES and Thales Alenia Space sign contract for SWOT programme

Tuesday 6 January, in the presence of Geneviève Fioraso, Secretary of State for Higher Education and Research, CNES and Thales Alenia Space (TAS) signed a contract to develop the spacecraft bus for the French-U.S. SWOT satellite, which also covers future integration and testing at TAS's facility in Cannes, France.

The SWOT mission (Surface Water and Ocean Topography) will fly an Earth-observation satellite dedicated to measuring surface water levels in lakes and rivers and river discharges, and to acquiring highly precise and detailed data on ocean topography. It is designed around a key leap-ahead technology using wide-swath interferometry that promises to revolutionize oceanography and land surface hydrology. The mission is the latest in a long line accomplished in partnership with NASA, beginning in 1992 with the launch of the TOPEX/Poseidon satellite and since continued through the series of Jason satellite missions.

The SWOT spacecraft bus supplied by CNES for NASA will fly the K_a-band Radar Interferometer instrument (KaRIn) designed by the Jet Propulsion Laboratory (JPL) and will ultimately replace conventional altimetry payloads. The bus designed by Thales Alenia Space stands apart from the majority of satellites in low-Earth orbit on account of its exceptional size, which is a result of the level of power consumed by the radar and the mission's stability and pointing requirements. The mission will also call for storage, downlinking and processing of 7 terabytes of data acquired by the payload every day.

Development of the spacecraft bus and integration of the satellite will receive €78 million in funding under France's PIA future investment plan and the contract plans to give work to numerous French small- and medium-sized firms.

SWOT is scheduled to be delivered to NASA in 2020 and launched at the end of that year.

After the signature, CNES President Jean-Yves Le Gall commented: "This contract puts SWOT firmly on the rails and demonstrates CNES's and Thales Alenia Space's strong commitment to accomplishing this key mission that is set to provide new insights into our environment. CNES is very proud to begin the year with this contract signing in the presence of Geneviève Fioraso, our Secretary of State for Higher Education and Research. For France, 2015 will be focusing on climate with the COP 21 global climate summit in Paris and the start of SWOT is testament to CNES's intention this year to get space working for climate."

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