

Paris, 8 December 2015
PR217 – 2015

COP21 space agenda CNES and DLR reaffirm commitment to developing MERLIN satellite

In the presence of Thierry Mandon, Secretary of State for Higher Education and Research, and Brigitte Zypries, Parliamentary State Secretary at the Federal Ministry for Economic Affairs and Energy and Federal Government Coordinator of German Aerospace and Information Technology Policy, CNES and its German counterpart DLR met on Tuesday 8 December at Le Bourget in Paris to reaffirm their commitment to jointly developing the MEthane Remote sensing LIdar mission (MERLIN) satellite that is set to measure concentrations of methane in Earth's atmosphere with unprecedented precision.

France and Germany are thus signalling their determination to engage in a large-scale bilateral space cooperation project, translating their intent to develop space missions dedicated to measuring greenhouse gases and their sources and to acquire tools vital to gain deeper insight into the mechanisms driving Earth's climate.

Methane is 25 times more potent than carbon dioxide, the main greenhouse gas responsible for global warming. Its contribution is therefore significant. The goal of MERLIN is to learn more about the processes underlying the methane cycle by characterizing sources of the gas, both natural (wetlands, thawing permafrost, etc.) and anthropogenic (transport and burning of coal, natural gas and ruminant livestock, etc.).

MERLIN is built around the new Myriade Evolutions spacecraft bus developed by CNES in partnership with industry. The payload being built in Germany under the supervision of DLR is an active lidar (LIght Detection And Ranging) instrument. Using a laser to emit light in two different wavelengths, the lidar is able to acquire highly precise day/night measurements of atmospheric methane concentration at all latitudes. Germany and France will jointly process and exploit the data from the mission through the close involvement of research laboratories, which are making a crucial contribution to defining science targets, to technical developments and to validating the system. MERLIN will be orbited in 2020 by a European launcher.

After this meeting, Thierry Mandon and Brigitte Zypries commented: "The development of MERLIN by CNES and DLR is highly symbolic and illustrates France and Germany's strong desire to accomplish this mission that is going to be crucial in enhancing our understanding of the processes driving climate change. With the COP21 climate conference now underway in Paris, this is a major milestone for the environment and its protection that shows we are fully committed to moving forward in this vital area for the future of our planet."

Contacts

Pascale Bresson
Alain Delrieu
Julien Watelet
Elisabeth Mittelbach

Tel. +33 (0)1 44 76 75 39
Tel. +33 (0)1 44 76 74 04
Tel. +33 (0)1 44 76 78 37
Tel. +49 (0)2 28 44 73 85

pascale.bresson@cnes.fr
alain.delrieu@cnes.fr
julien.watelet@cnes.fr
elisabeth.mittelbach@dlr.de

presse.cnes.fr