

Paris, 21 July 2016
PR 135 - 2016

France-Australia space cooperation CNES and CSIRO sign agreement on PILOT balloon mission

Thursday 21 July in Sydney, CNES President Jean-Yves Le Gall and CSIRO Chief Executive Larry Marshall signed a cooperation agreement concerning the PILOT mission set to launch from Alice Springs in March-April 2017. PILOT intends to map the direction and intensity of the Milky Way's magnetic field and to gain new insights into the magnetic properties of interstellar dust grains.

CNES has been working with Australia since the 1980s, when a SPOT receiving station was set up there, and is continuing to do so today notably through two DORIS receiving stations. Australia has been in talks with France in recent months on scientific ballooning, leading to the cooperation agreement signed today with the Commonwealth Scientific and Industrial Research Organization (CSIRO) for the PILOT mission (Polarized Instrument for Long-wavelength Observations of the Tenuous interstellar matter).

Under this agreement, CNES will now start gearing up for an extensive balloon flight campaign operating out of Alice Springs, Australia, from mid-March to end April next year. Among the scientific experiments to be flown is the emblematic PILOT mission devised by the IRAP astrophysics and planetology research institute. PILOT intends to measure the polarized emission of dust grains in the interstellar medium in order to precisely map the polarization of galactic radiation from the southern hemisphere. Observations from Australia will cover parts of the sky that can only be viewed from this region of the globe, i.e., the galactic centre of the Milky Way, the Large and Small Magellanic Clouds and parts of the southern sky only seen from telescopes at bases at the South Pole in the Antarctic and in Chile. The challenge is to map our galaxy's magnetic field and analyse its role in the cycle of matter, looking at dust clouds and the formation of stars and planets. The balloon launch will be conducted from the Alice Springs base in Australia's Northern Territory, with support from teams at CSIRO and the University of New South Wales (UNSW).

Ed Kruzins, CSIRO's coordinator for the CNES/CSIRO balloon programme, commented: "This agreement is a fine example of the kind of joint studies that Australia and France have been doing together in recent years. We are delighted to be pursuing our relations in this way in exciting areas like astrophysics and science, and we hope this mission will deliver a rich harvest of results."

CNES President Jean-Yves Le Gall added: "This mission is the symbol of our excellent relations with Australia and we are keen to strengthen our ties further through important missions like PILOT, which will pave the way for future cooperation in other areas."

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