

## PRESS RELEASE

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### **FRANCE-BRAZIL SUMMIT: 4 SPACE SECTOR AGREEMENTS SIGNED BETWEEN FRANCE AND BRAZIL**

**French and Brazilian space agencies have formalised their desire to increase cooperation by signing 4 space sector agreements, in the presence of Luiz Inacio Lula da Silva, President of the Federal Republic of Brazil and Nicolas Sarkozy, President of France.**

**On Tuesday 23 December 2008, Yannick d'Escatha, President of CNES (Centre National d'Etudes Spatiales), and Carlos Ganem, President of AEB (Brazil Space Agency) confirmed their desire for cooperation by signing 4 agreements covering a general Programme and three specific Projects.**

France and Brazil have already signed 13 cooperation agreements for Space since 1965. These 4 new agreements extend the history of space cooperation between the two countries to include a range of sectors and reinforce partnership for the development of space technology and its applications for agriculture, fighting and adapting to climate change, preventing and mitigating natural disasters, protecting the environment, and managing natural resources, as well as telecommunications and satellite navigation.

**The general Programme aims to encourage development of scientific and technical cooperation between AEB and CNES and research organisations** specialising in space technology and its applications, including Earth observation, telecommunications, meteorology, navigation, space sciences or in any other sector considered appropriate by the two Parties. The programme, which precludes any exchange of funds, notably plans for the joint design and implementation of plans and projects, from technical assistance to contract supervision, exchange and training of personnel, participation of staff in integrated teams and exchange programmes for doctorate and post-doctorate students.

**The first specific project involves offering CNES expertise to help Brazil develop a generic launcher, known as the Multi Mission Launcher,** which could enable it to achieve independent scientific missions based on low orbit satellites. This assistance would focus on the orbit and attitude control sub-system, thus opening the path towards industrial cooperation. Brazilian experts will come to the Toulouse Space Centre to develop testing and simulation tools for the future launcher, also of interest to CNES.

**The second specific project concerns the SGB (Brazilian Geostationary Satellite), and aims to develop technical cooperation on satellite systems for geostationary telecommunications**, navigation and meteorology. CNES will help to define a mission specification for the SGB Brazilian geostationary satellite project. Based on initial data supplied by its Brazilian counterpart, CNES will analyse service requirements, programming constraints, make a preliminary analysis of various mission and system scenarios, and a risk analysis of the SGB mission. This assistance notably includes setting up an integrated, mixed team. In addition CNES will supply an instrument to be integrated into the satellite which will allow CNES to study propagation of high frequency waves (Ka band), used for future satellite telecommunications.

The third specific project concerns **cooperation in the field of global warming and the water cycle (Global Measures of Precipitation: GPM)**. The aim is to develop short, medium and long-term cooperation using satellite systems to characterize precipitation, the water cycle and energy budgets in the Tropics. All these phenomena are essential to understanding and modelling climate change on our planet. In the short term, it means that French and Brazilian scientists will decide on a programme for validating scientific data products derived from measurements made by existing satellites, notably Megha-Tropiques (a French-Indian satellite due to be launched in 2010). Exchanging students and researchers, as well as undertaking joint field campaigns, will in particular lead to cross-pollination and improvement of methodologies for both sides. The medium term outlook means working together to design a satellite for joint development, possibly with India, which would follow on the heels of international missions on the theme of GPM 'Global Precipitation Measurement', notably Megha Tropiques.

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