Paris, 23 November 2006

PRESS RELEASE

CNES AND IFREMER JOIN FORCES TO DEVELOP OPERATIONAL OCEANOGRAPHY

On November 23, Yannick d'Escatha, President of CNES (the French Space Agency), and Jean-Yves Perrot, President of Ifremer signed an agreement committing the two organisations to a joint effort in the field of operational oceanography.

Operational oceanography is based on three elements, numerical simulation and space-based and *in situ* observation. In their respective spheres of responsibility, CNES and Ifremer will be coordinating their efforts and are already working together on various projects.

At the European level, operational oceanography is one of the three priorities of the 'European Global Monitoring for Environment and Security' (GMES) programme. This includes an ocean part, for the development and exploitation of services to meet various needs such as improving the safety and efficiency of maritime transportation, contributing to studies of ocean climate variability, setting up support services for the integrated management of coastal areas, anticipating the consequences of pollution, etc…

In this context, CNES and Ifremer have decided to reinforce their collaboration, which is centred on research and operational oceanography, for their mutual benefit. For its own needs, research is the first 'customer' for operational oceanography products, but it is also involved before they are produced. Research can improve the scientific and technical efficiency of services and thus the quality of products for future users. CNES and Ifremer are already partners on various national and international committees and in programmes and will now make an effort to pursue joint research for the scientific application of space oceanography measurements.

Cooperation will include the following themes:

- The CATDS+ (*Centre Aval de Traitement des Données de la mission SMOS* – data processing centre for the SMOS mission) will be developed by CNES in collaboration with Ifremer. The SMOS (Soil Moisture and Ocean Salinity) mission, which is a joint CNES / ESA mission that also involves other European partners, will for the first time enable satellite observation of the salinity of the ocean's surface. Salinity is a basic parameter for ocean research and for the operational applications developed by Ifremer.

- CNES and Ifremer, in association with Météo-France and CNRS/INSU, will study a project for concentrating expertise to investigate the Winds/Flux theme, in the framework of activities such as 'data and expertise centres' for processing and disseminating measurements taken for operational oceanography and oceanographic research.

- Within the work groups organised by CNES on applications for future high-resolution images, Ifremer will introduce the use of high-resolution optical techniques for coastal oceanography applications and for validating new measurement concepts.

As for operational oceanography, Ifremer designs and deploys floating beacons that are used to supply the numerical models with in situ data (Coriolis project). These floaters take measurements of sea temperature and salinity in a vertical column of water. At the same time CNES provides sea surface height (SSH) measurements (Jason-1 mission) or other parameters at the ocean's surface from instruments carried by satellites, which also transmit the data to Earth. Using these measurements, the numerical models (such as those developed by GIP MERCATOR Océan, of which both organisations are members), are then used to construct an instantaneous image of the structure of masses of water and the intensity of currents, and to predict the evolution of the oceans.

CNES
From the start, France has proclaimed its ambitions for Space. It has thus now achieved unrestricted access to Space and is a leading stakeholder in both European space policy and in international projects. CNES has developed end-to-end capability and know-how for implementing space systems. To do this it relies on many partners, organisations, manufacturers and research laboratories. Because of its capacity to innovate and anticipate, it helps further our knowledge, developing new technologies that benefit all of us and are used in Space applications

Ifremer
Ifremer, the French institute for marine research, designs, develops and implements tools and systems for the observation, study and surveillance of marine environments, from coastal zones to great depths. Through their work, the Ifremer scientists and engineers help increase our knowledge of the seas and oceans and the species that inhabit them, in order to reinforce conditions for sustainable development in the various sea-related sectors of the economy.

Ifremer employs 1,700 people, has a budget of 160 million euros, 7 ships outfitted for scientific research, a manned submarine, (*Nautile*), a remote controlled device for great depths (*Victor 6000*) and a set of testing facilities.

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