



More than 60 oceanographers work daily at CLS for better understanding of our seas and oceans..

PISTACH

CLS is constantly striving to better understand our planet

Increased sea levels and reduced freshwater reserves are the findings at the start of the century. But what is the scale of these phenomena and how can we properly measure the level of the sea on our coasts and the state of water systems and reserves on our planet? To answer this question, the French National Centre for Space Studies (CNES) has assigned CLS with the PISTACH* project, a programme to provide increasingly accurate sea level measurement for coastal and continental waters.

*Prototype Innovant de Système de Traitement pour l'Altimétrie Côtière et l'Hydrologie (Innovative Prototype Processing System for Coastal Altimetry and Hydrology)

30 experts in altimetry and CLS developers have worked to improve the data collected by the JASON-2 satellite ocean observation. In collaboration with LEGOS (the French space geophysics and oceanography research laboratory), Cemagref (the French research institute specialising in the sustainable management of land and water) and the IRD (Institute of Research for Development), CLS teams have improved the Franco-American satellite's processing algorithms, enabling it to measure the level of the sea on our coasts more accurately and to provide improved understanding and monitoring of our main water systems and lakes. In this way CLS is extending its sphere of knowledge from open ocean to coastal waters and thus improving its oceanographic

data and products for offshore operations, regional modelling and fisheries management.

Thus CLS can determine sea levels between 5 and 50 km off our coast to within as little as 1-5 cm and this can be done almost in real time!

Measurements by JASON-2 also allow the level of major lakes and river basins to be monitored regularly and globally, albeit less precisely than for the seas.

The global coverage provided by this satellite is of great benefit, since we know that very few measurement networks exist in situ, particularly in Africa, and that fresh water reserves such as Lake Victoria, may extend over several countries.

It represents a revolution in the field of hydrology, with data that enables monitoring and hence better management of freshwater reserves that are spread over various countries.

CLS IN FIGURES

1.5 cm

the accuracy within which coastal sea levels can be measured by CLS

30

altimetry experts and CLS developers have worked on the PISTACH project

330




staff

3

areas of operation

-  sustainable resource management
-  environmental monitoring
-  maritime safety

3
specialist fields

-  location
-  collection of data
-  ocean observation



Franck Mercier

fmercier@cls.fr - 00 33 (0)5 61 39 48 53

Amélie Proust

aproust@cls.fr - 00 33 (0)5 61 39 37 95



KNOW TODAY



LIVE BETTER



TOMORROW



CLS

COLLECTE LOCALISATION SATELLITES

