JASON-1 IBIZA 2003 CAMPAIGN AND PRELIMINARY RESULTS


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The main objective of this communication is the description of the IBIZA 2003 and its preparation.

A Spanish with French support, Mean Sea Surface Mapping (MSS)-Geoid Determination/ JASON-1 Absolute Altimeter Calibration campaign has been made on June 10-17, 2003, in the area of Ibiza island in the NW Mediterranean Sea. The Universidad Politecnica de Cataluña, Real Instituto y Observatorio de la Armada en San Fernando, Instituto Cartografico de Cataluña, Observatoire de la Côte d’Azur-CERGA-GRGS, Puertos del Estado, Universidad Complutense de Madrid and Universidad de las Islas Baleares-IMEDEA have participated with support of CNES and NOVELTIS in that campaign. Experience has been obtained from three preliminary altimeter calibration campaigns in March 1999 and July 2000 for Topex/Poseidon and August 2002 for JASON-1 in the cape of Begur area. The last two have included the MSS determination by GPS buoys.
The determination of the marine geoid by GPS catamarán technique has been one of the main objective of the campaign. This marine geoid will be used to rely the coastal tide gauge data and the off of coast Jason-1 altimeter data. In situ measurements using mainly tide gauges. The GPS catamaran has been designed at ICC taking in account the catamaran used in Senetosa/Corsica campaigns. Also has been used a GPS buoy with its toroidal design used at the University of Colorado at Boulder. GPS reference stations have been located at Ibiza, San Antonio and Portinatx. Data from tide gauges at Ibiza and San Antonio have been used. A spirit levelling has been made in these two places.

A secondary objective has been the Jason-1 absolute altimeter direct calibration made on June 14. The global objective is that Ibiza could be considered in the near future a Permanent Calibration Site as Senetosa and Harvest.

The IBIZA 2003 campaign has been made within a Project R+D from the Spanish Space Program of the Ministry of Science and Technology ref:ESP2001-4534-PE.