

OCEANSAT_2 : an Indian space mission devoted to Earth observation

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The first OCEANSAT, a satellite devoted to Ocean applications, was launched in May 1999 and had a lifetime of 6 years. It carried two Payloads: the Ocean Color Monitor (OCM) and Multi-frequency Scanning Microwave Radiometer (MSMR). These payloads provided valuable data which were used for various applications helpful for India as well as by International users.

The main applications of the OCM were the identification of Potential Fishery Zones (PFZ); while from the sea surface field of temperatures got by the MSMR, the prediction of Monsoon arrival.

The second OCEANSAT mission is exactly a follow on of the first but with improved releases of the payloads. The OCM is 8-narrow Band multi-spectral camera with 360 m Resolution, 1420 Kms Swath and 2 days revisiting time. The scatterometer is a Ku-band (13.515GHz) radar with V & H polarization and works with two-beam conical scanning.

On last October a memorandum of Understanding between the Indian and the Italian qSpace Agencies (ISRO & ASI) was signed just to enrich the mission with another payload developed by ASI: the space-borne GPS receiver devoted to radio occultation (ROSA).

The goals of the mission, the payloads and their applications will be described in detail.