

Oceansat's Ocean Color Monitor: An Instrument Whose Time Has Come

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Abstract: The Indian Space Research Organization launched the polar orbiting Oceansat (IRS-P4) satellite in 1999. On board, is the Ocean Color Monitor (OCM) instrument, which has identical spectral bands to the SeaWiFS instrument but with a spatial resolution of 236 x 360 meters. OCM has been acquiring data since late 1999 but has largely been ignored in the scientific community. This neglect is possibly due to a lack of advertising and announcements to the scientific community, its launch immediately following the launch of the long awaited SeaWiFS instrument, the lack of algorithm development for the platform, or that the data is provided at cost to the user. Whatever the case, scientific quality data and products are now available and should certainly be addressed by those doing ocean color research, especially in coastal waters.

The similarities between OCM and SeaWiFS have allowed scientists at SeaSpace Corporation and Rutgers University's Coastal Ocean Observation Lab to use the NASA SeaWiFS algorithms to produce scientific quality data. The high resolution allows retrievals close to beaches, and in wetlands, where other instruments drop data. OCM uses a linear array of CCD detectors, not a rotating mirror, which allows for identical ground resolutions at nadir and at the swath edge, and may ultimately increase the lifetime of the instrument due to minimal wear and power consumption. Comparisons of OCM to in situ data sets, other color sensors, and improvements in retrievals will all be presented here.