

## PML Level 1 EO database

The level 1 Earth Observation data held at Plymouth Marine Laboratory (PML) comprise data from a number of ocean colour sensors including the NASA Moderate Resolution Imaging Spectroradiometer (MODIS) carried on the Aqua satellite (2002- to date: e.g. Figure 1); European Space Agency Medium Resolution Imaging Spectrometer (MERIS) at reduced resolution carried on Envisat satellite (2002 – 2012) and the Sea-viewing Wide Field of View Sensor (SeaWiFS) carried on Orbview-2 (1997-2010). In addition PML has an archive of full resolution L1 MERIS data from ~2009-2012. Level 1 data comprise the top of atmosphere calibrated radiance measurements at a number of wavelengths as measured by the space borne sensors. In order to retrieve geophysical quantities such as the water reflectance or water-leaving radiance it is necessary to perform an atmospheric correction and apply various bio optical algorithms to retrieve biological quantities such as chlorophyll-a concentration. The PML database also includes data from the NOAA series of Advanced Very High Resolution Radiometer (AVHRR) sensors but these are stored as level 0 as supplied by the Dundee Satellite receiving station and these data are available from (1979 to date).



Figure 1. Level 1 MODIS image from 24 Jul 2012 12:45 UT.

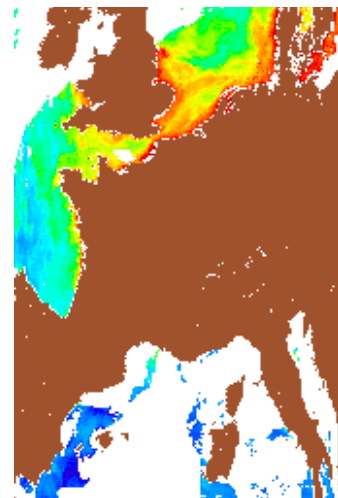


Figure 2. Level 2 MODIS image from 24 Jul 2012 12:45 UT for same area as Fig 1 showing chlorophyll-a product.