

# Learn more about Envisat MERIS Full Resolution Level-1 data

## The data

The **Medium Resolution Imaging Spectrometer (MERIS)** onboard Envisat **operated in the solar reflective spectral range, with a high spectral and radiometric resolution and dual spatial resolution.**

MERIS Full Resolution Level-1 data contain the **Top of Atmosphere (TOA) upwelling spectral radiance measurements.**

The Level-1 product is composed of reference irradiances at each of the 15 MERIS bands, including in-band reference irradiances adjusted for the Earth-Sun distance at the time of measurement. The product has a global coverage in descending mode and covers the complete instrument swath

## Applications

The Level-1 data enable research related to:

- **Atmospheric processes**
- **Clouds, water vapour and aerosols**
- **Climate studies**
- **Meteorology**

## Mission and instrument

<b>Mission</b>	Envisat
<b>Instrument</b>	Medium Resolution Imaging Spectrometer (MERIS)
<b>Measurements</b>	Optical data in the visible and near-infrared range

### MERIS

originally designed for **measuring ocean colour**, the **sensor's scope** was broadened to serve **atmospheric and terrestrial applications**

## Coverage

<b>Temporal</b>	17 May 2002 – 8 April 2012
<b>Spatial</b>	You can check the yearly and global distribution of the data using these <a href="#">maps</a>
<b>Resolution</b>	260 m across track / 290 m along track
<b>Waveband</b>	15 bands across range 390 nm to 1040 nm

## Products

The **Envisat MERIS Full Resolution Level-1b product** has Sentinel-3-like NetCDF format and can be [browsed and assessed online](#)

## Data access

Access to the **Level-1b product** is free and open:

[earth.esa.int/eogateway/catalog/envisat-meris-full-resolution-full-swath-level-1-mer\\_frs\\_1p-](http://earth.esa.int/eogateway/catalog/envisat-meris-full-resolution-full-swath-level-1-mer_frs_1p-)

