Applications Product

Phytoplankton

AATSR, 01 June 2002

This Advance Along Track Scanning Radiometer (AATSR) image shows a clear day over most of the United Kingdom, the Brittany region of France, and Spain. Off the coast of Brittany, a large green phytoplankton patch is visible. It appears green because these small organisms contain chlorophyll, just like plants and trees, their terrestrial counterparts. Chlorophyll is the substance by which phytoplankton retrieve their energy from the sun. This energy in then used to absorb carbon dioxide from the atmosphere, one of the gases responsible for the greenhouse effect, and stimulate their growth. Phytoplankton have also contributed for billions of years to progressively releasing the oxygen we breatheThe most important feature of the AATSR instrument is its capability to measure the world's ocean temperatures, a key parameter to monitor and understand planetary climate changes. AATSR, with its visible and infrared channels, is a key instrument onboard Envisat that helps climate researchers better understand the role of oceans in our biosphere. As this image demonstrates, the instrument also has the capability to detect phytoplankton, tiny algae living in the first tens of meter below the water's surface.

Technical Information:

Instrument:	**Advance Along Track Scanning Radiometer (AATSR)**
Date of Acquisition:	**1 June 2002**
Orbit number:	**01322**
Instrument features:	**Full resolution image (1000-meter resolution)**
Coordinates:	
NW Lat/Long:	**N 61.00/ W 06.50**
NE Lat/Long:	**N 61.00/ E 01.50**
SW Lat/Long:	**N 42.00/ W 06.50**
SE Lat/Long:	**N 42.00/ E 01.50**