EOS Direct Broadcast Applications available at Sodankylä, Finland

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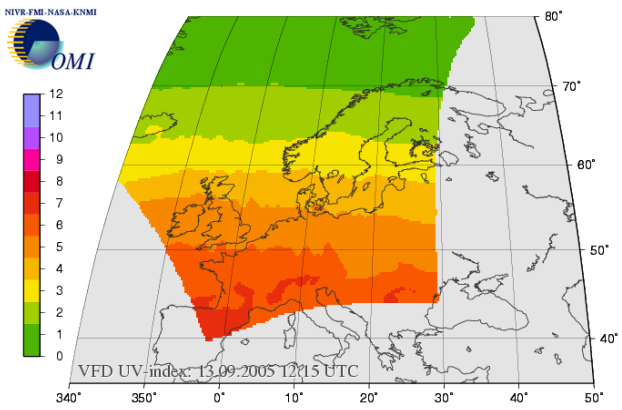
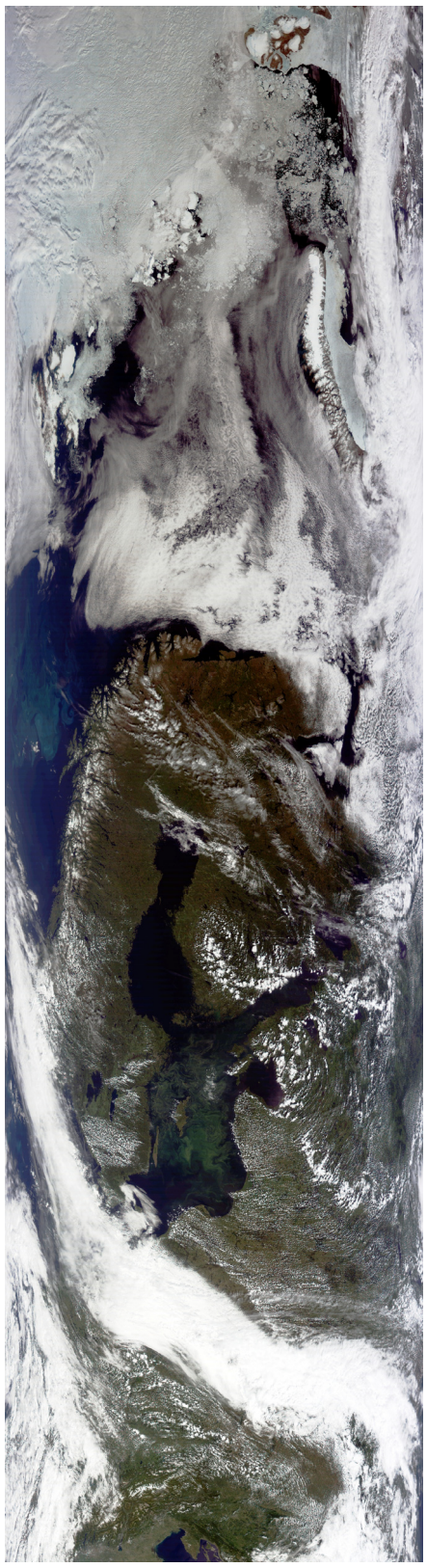
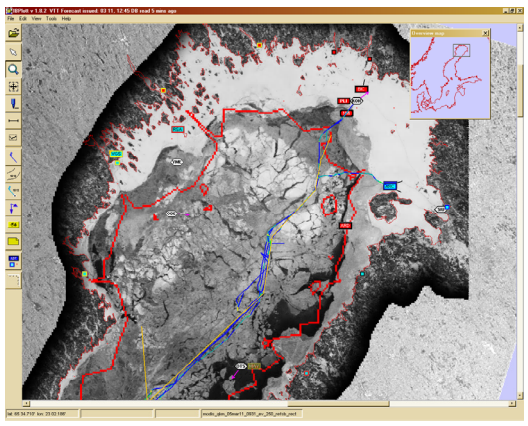
The Direct Broadcast Receiving station in Sodankylä (**67.368 °N, 26.633 °E)**, Northern Finland, was built in spring 2003 for receiving OMI data from EOS Aura satellite and MODIS data from EOS Terra and Aqua satellites. Operational receiving of MODIS data started in April 2003 and OMI data in autumn 2004.

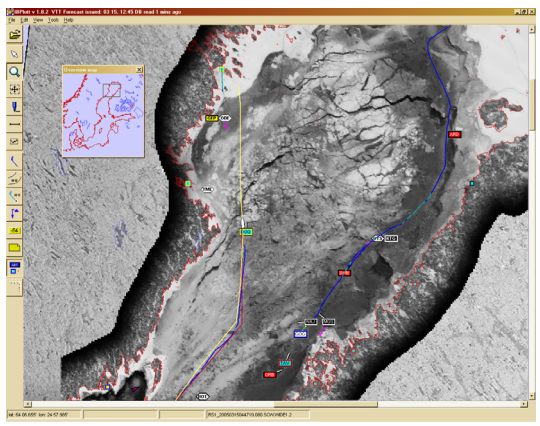


Near-Real-Time UV-index calculated from OMI Direct Broadcast data.

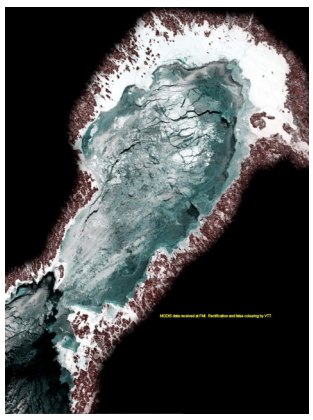




1.

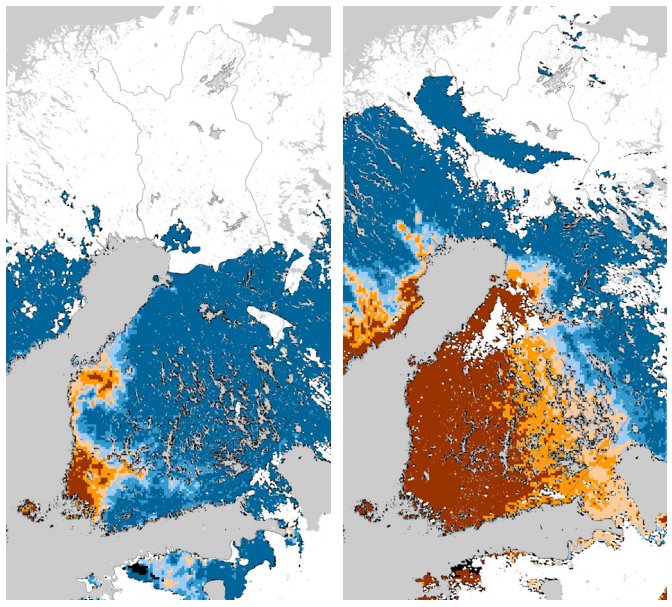


2.

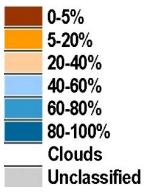


3.

Pictures1 and 2 are from IBPlott - an application used onboard the icebreakers. The rectified MODIS image (channel 1) is used together with position information from the IBNet system showing the ships and icebreakers moving in the area (Bay of Bothnia). Red lines indicate shallow water areas, the dark yellow lines show the recommended routes issued by the icebreakers and the green-blue trails show the actual routes of the ships. MODIS image from March 11, 2005. Picture 3. shows a false coloured 250 m resolution image where MODIS channels 1 and 2 are mapped to the red, green and blue channels. The different types of ice are clearly visible. Land is masked out to reduce the amount of data when sending the image to the users at sea. Data received at Sodankylä and pictures provided by VTT Technical Research Centre of Finland.

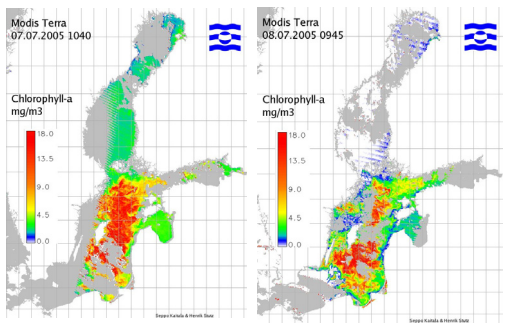


April 1st 2005 April 25th 2005



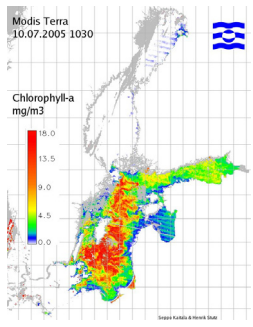
Snow cover area

These pictures indicates snow coverage percentage at 5km*5km ground area using MODIS 500m resolution channels along with cloudmask emissive 1km channels. Data is used for example to predict flooding and other hydroelectric power purposes. Snow cover is monitored on daily basis during the season. These pictures are made out of MODIS data by Finland's Environmental Administration.



Chlorophyll-a research

The amount of chlorophyll-a in seawater is monitored around the year. These pictures are made out of MODIS data by Finnish Institute of Marine Research.



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