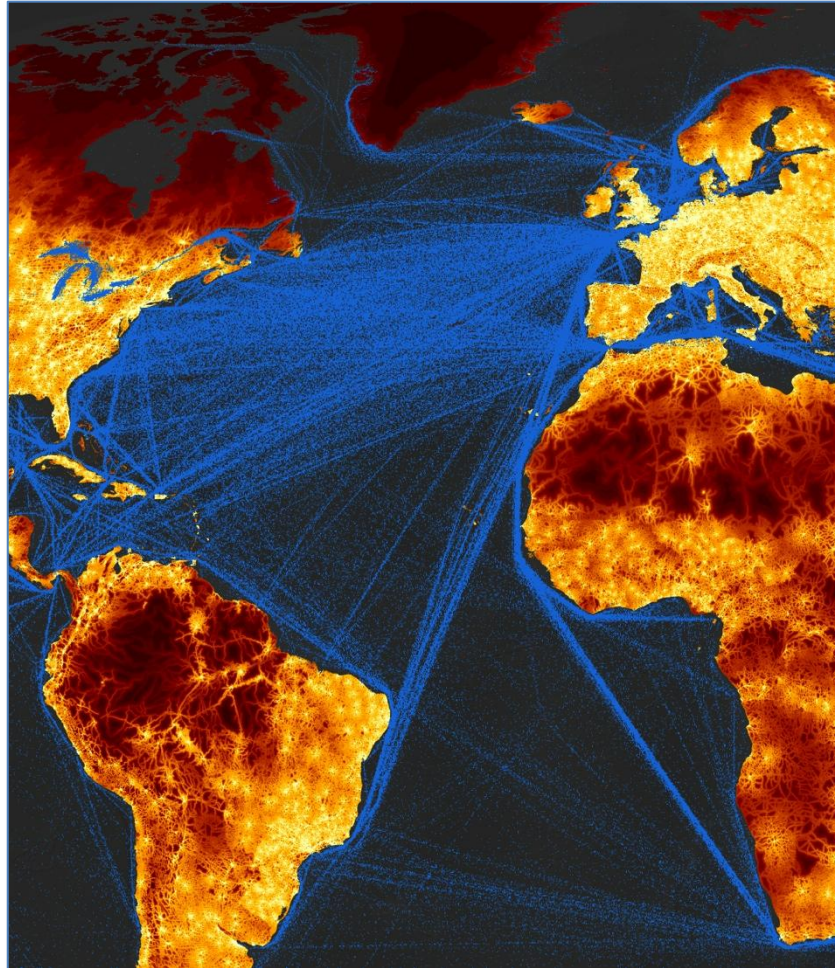


Advancing the generation of Climate Data Records from Earth Observing satellites through Transatlantic Collaboration

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European Commission
Joint Research Centre

www.jrc.ec.europa.eu



0 1 2 3 4 6 8 12 18 24 36 2d 3d 4d 5d 10d
Travel time to major cities (in hours and days)
and shipping lane density
Source Joint Research Centre

MODIS June 2006, courtesy NASA



MERIS June 2006, courtesy ESA

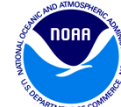


Preventing “dangerous” human
interference with the climate system

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A group of 18 men, mostly in suits, posing for a group photo on a grassy field. In the background, a large white satellite dish antenna is mounted on a pedestal. The sky is cloudy.

Vice Chair John
Bates (NOAA/NCDC)

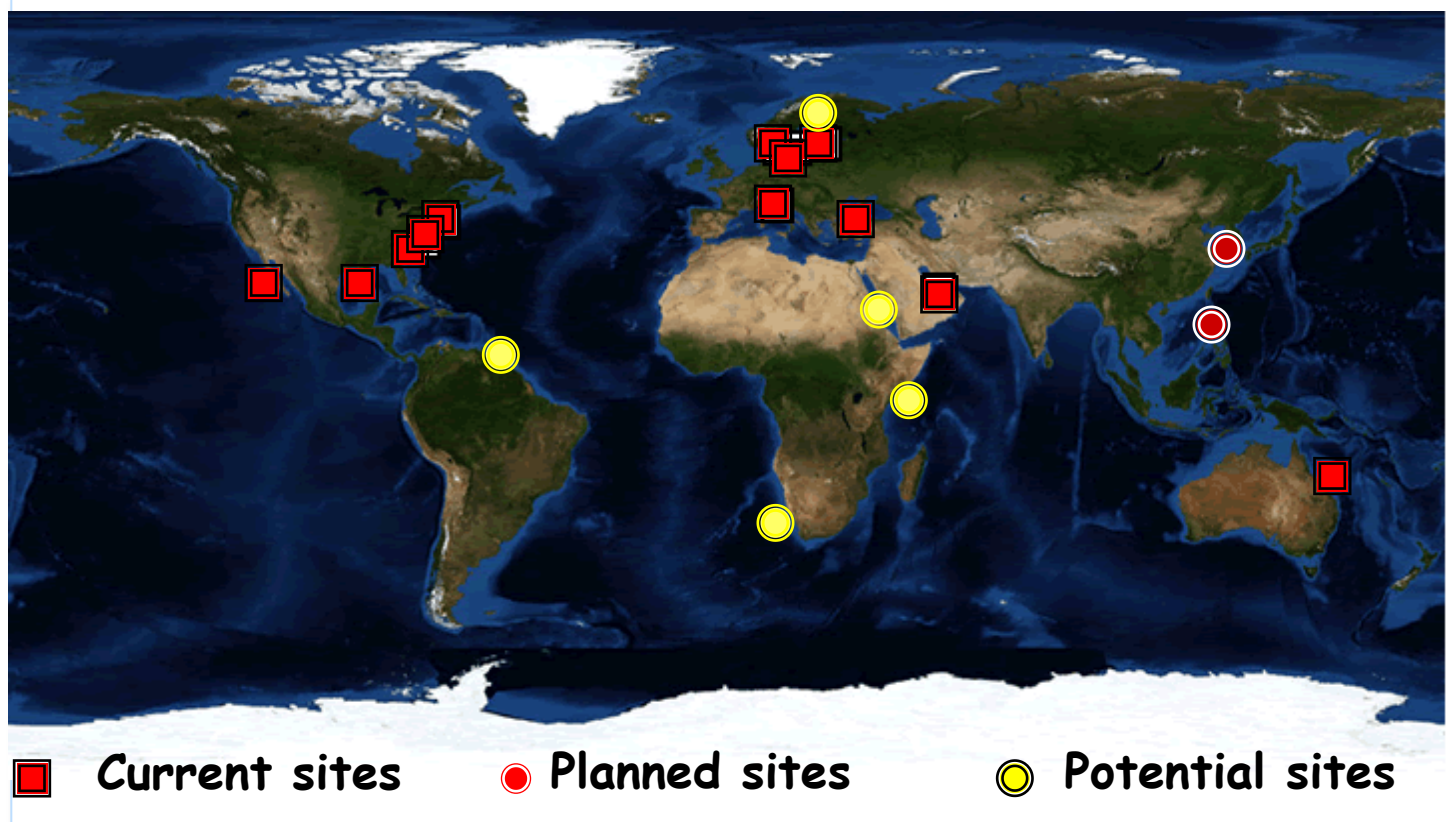


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[illegible]

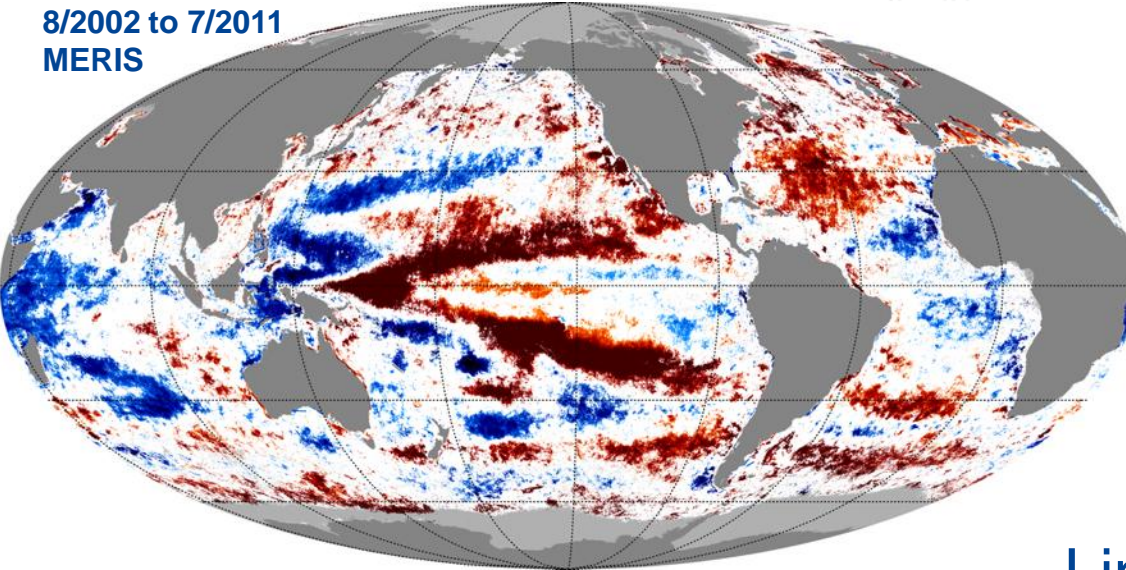
CEOS, World Meteorological Organization and
Coordination Group for Meteorological Satellites
www.ceos.org; www.wmo.int/sat; <http://www.cgms-info.org/>

A shared Global Network of measurements to standardize and validate the accuracy of ocean colour measurements from space (AERONET-OC)



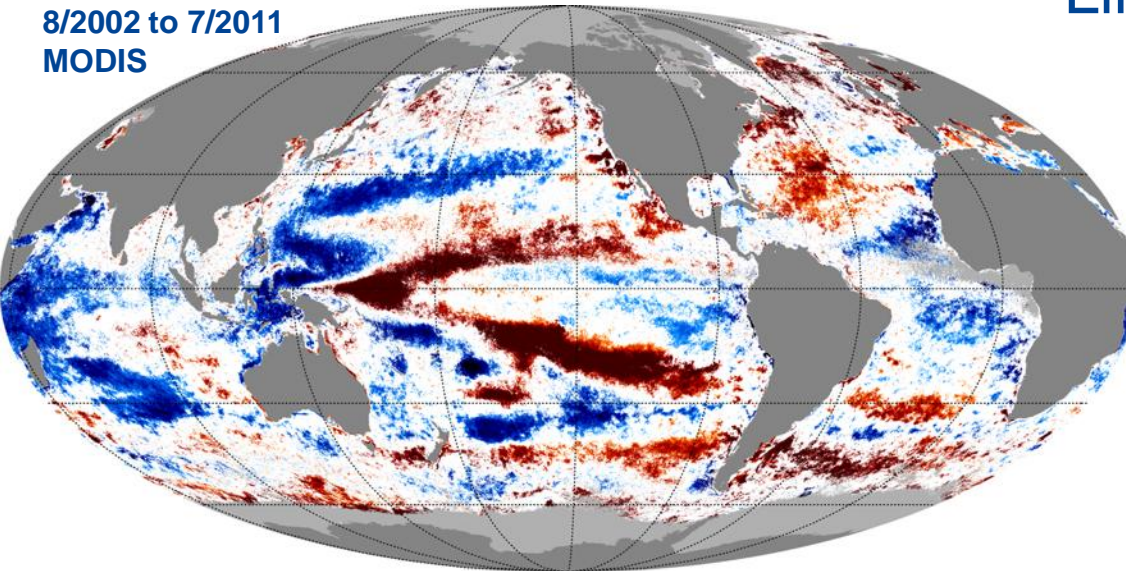
“A considerably increased exploitation of data from European satellites can be achieved if a concerted effort is made to coordinate and organise the processing, validation and standardisation of space data. “ – Horizon 2020

8/2002 to 7/2011
MERIS

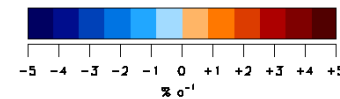


Improving data availability,
synergistic use, record
completeness, and hence
improving knowledge

8/2002 to 7/2011
MODIS



Linear trends in chlorophyll a
concentration



Source Vantrepotte & Mélin Joint Research
centre, see *Cont. Shelf Res.*, 2010; *Deep-
Sea Res.*, 2011; *Geophys. Res. Lett.*, 2011

Achievements and next steps

- ① A mechanism now exists for improving the generation of current (and future) climate data records in a systematic manner
- ② ... which is tightly linked to the requirements expressed by the Global Climate Observing System (and scientific community)
- ③ ... which are reviewed and endorsed by the governmental signatories to the UN Framework Convention on Climate Change.
- ④ This has led to shared data sets, greater accuracy, fewer gaps and new knowledge.
- ⑤ Next steps will focus on maximising synergy between and benefit from Europe's Sentinels, Canada's Radarsats, and US platforms such as Landsat and the Joint Polar Satellite System
- ⑥ ... through bilateral research partnerships and by sustaining European and North American leadership in international forums including GCOS, CEOS and the Group on Earth Observation.