
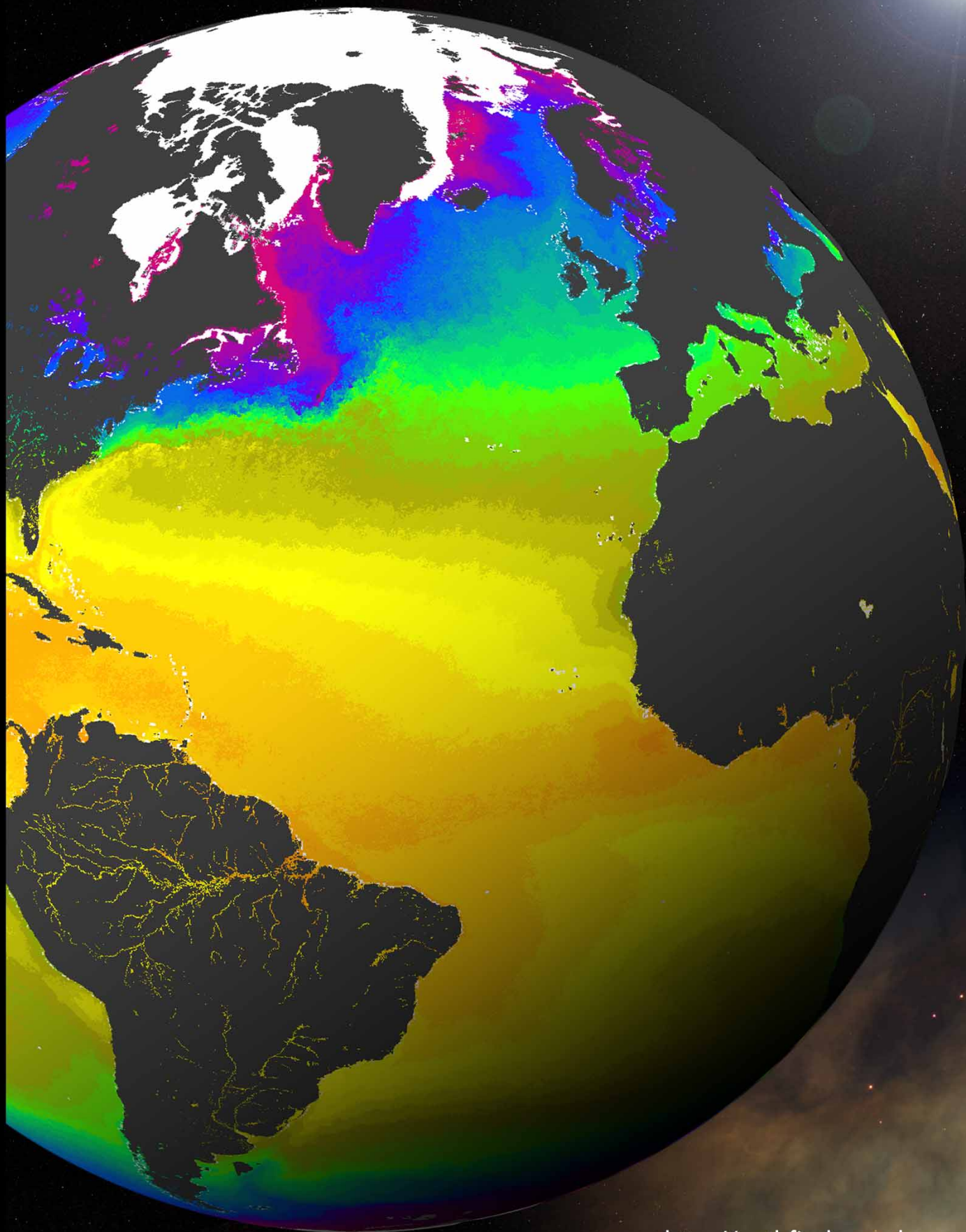


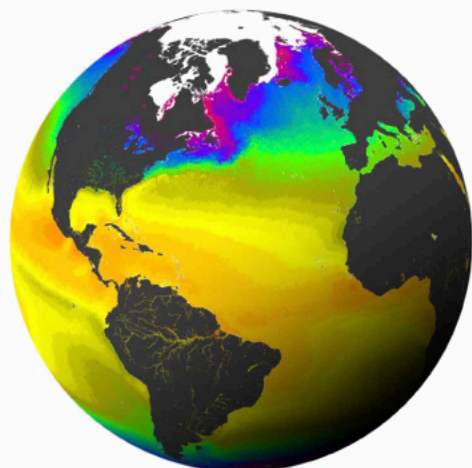
Pathfinder Sea Surface Temperature

 NOAA National Oceanographic Data Center



<http://pathfinder.nodc.noaa.gov>

Pathfinder Version 5 Sea Surface Temperatures



About this image: Climatological SST for Week 50 from 1985-2001 Pathfinder V5 data with ice mask from Week 50 of 2003.

The Pathfinder Version 5 (V5) data set is a 27-year sea surface temperature (SST) record based on NOAA Advanced Very High Resolution Radiometer (AVHRR) observations and an improved Pathfinder algorithm developed by the NOAA National Oceanographic Data Center (NODC) and the University of Miami Rosenstiel School of Marine and Atmospheric Science (RSMAS). The goal of the Pathfinder Project is to develop a comprehensive Climate Data Record for SST. Pathfinder V5 is the successor to the NOAA/NASA AVHRR Oceans Pathfinder Program, which developed global SSTs at 9.28 km resolution throughout the 1990's and culminated in the Version 4.x (V4) dataset.

Despite its success, some problems with the V4 data limited its use. For example, the relatively crude and in some areas incorrect land mask created significant problems for coastal applications, and lack of sea ice information limited the use of the data in the

ice-prone high latitudes. The Pathfinder Project corrects these and other deficiencies and implements numerous improvements over previously available V4 Pathfinder and operational AVHRR SSTs. These include a more accurate, consistent land mask, higher spatial resolution, and inclusion of sea ice information. Further improvements including a more robust coefficient estimation scheme, error estimates, and compliance with the Group for High Resolution SST (GHRSSST) standards are planned for the future Version 6 reprocessing.

Pathfinder V5 SSTs are available twice-daily at a resolution of approximately 4 km, the highest possible for a global AVHRR data set. In addition to SST, Pathfinder V5 includes an overall quality mask, first guess SSTs, number of observations per pixel, standard deviation, and two additional quality fields. Formal V5 data are available for late 1981-2006, along with an interim product for 2007-2008. Daytime and nighttime averages for daily, 5-day, 7-day, 8-day, monthly, and yearly periods are produced, along with corresponding sets of climatologies. Numerous advances have also been made to improve access to and use of the V5 Pathfinder data. These improvements include the creation of FGDC metadata records and inclusion of the data set in systems such as NOMADS (National Operational Model Archive and Distribution System) and NVOADS (National Virtual Ocean Data System). Full, online access to the entire data set is possible through services such as:

- OPeNDAP: - <http://data.nodc.noaa.gov/cgi-bin/nph-dods/pathfinder>
- FTP: - <ftp://data.nodc.noaa.gov/pub/data.nodc/pathfinder>
- HTTP: - <http://data.nodc.noaa.gov/pathfinder>

In addition, the V5 data are also being served in partnership with the NASA JPL PO.DAAC's sophisticated online POET interface - <http://podaac.jpl.nasa.gov/poet>. To date, more than 60,000 users have accessed over 50 terabytes of Pathfinder data to address a wide range of applications including fisheries and coral reef management, coastal environment characterization, and climate studies. For more information, see the NODC Satellite Oceanography Group website at: <http://pathfinder.nodc.noaa.gov>.

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