



NOAA's Climate Database Modernization Program: Preserving Marine History



Utilizing a National Resource

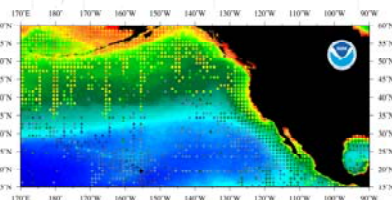


Utilizing a National Resource

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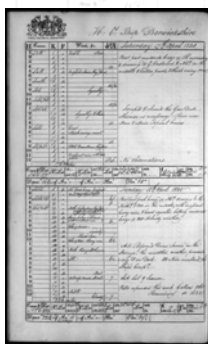
NOAA's Climate Database Modernization Program (CDMP) is managed by the National Climatic Data Center (NCDC). CDMP is dedicated to preserving global climate and environmental data. With a commitment to making data available online for research, CDMP supports one of NOAA's core missions to archive, store and provide public access to valuable historical data, which without preservation, could be lost forever. By working with various national and international agencies, a wide variety of rescue projects has been ongoing since CDMP's inauguration in 2000. Although CDMP preserves many kinds of environmental data, the program continues to faithfully support the global marine community by locating, imaging and keying historical and current marine records and merging the data into national and international databases.

Sample marine/ocean projects:



DATE	TIME	LATITUDE	LONGITUDE	DEPTH	TEMPERATURE	SALINITY	WIND	WAVE	SEA	WEATHER	REMARKS
1998-01-15	08:00	45.5N	125.0W	10	10.0	35.0	10	2	1	100	...

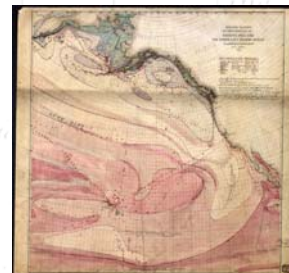
Zooplankton biomass values (top) as keyed in CDMP's Plankton Data Rescue project in cooperation with NOAA's National Marine Fisheries Service (NMFS). Other projects with NMFS include digitization of humpback whale sighting and movement data (bottom left); digitization of historical fish landings, Bering Sea Crab surveys, groundfish surveys (bottom right), and data recovery on cetaceans.



Logbook image from the East India Company Ship 'Berwickshire'. CDMP is currently involved in an international effort to digitize East India Company logbooks held at the British Library.



Swedish lightship sample log from a project with NOAA's National Oceanographic Data Center (NODC) to image and key surface, profile, and meteorological lightship data from Finland and Sweden. Other projects with NODC include preservations of Coast and Geodetic Survey motion pictures and California Coastal Marine Ecosystem Survey slides.



Adolf Lindenkolb's original watercolor of specific gravity in the Bering Sea and North Pacific Ocean. CDMP is working with the US Library of Congress to image the Coast and Geodetic Survey Library and Archives Collections. Red represents less dense values and blue represents more dense.



Working with NOAA's National Ocean Service, data such as historic US coastal high and low water levels are being keyed as well as historical US Great Lake water levels (left). CDMP also assists in a collaborative effort to rescue shoreline data and produce Geographical Information Systems (GIS)-compatible data in vector and georeferenced raster formats for use with visualization tools such as the NOS Data Explorer (center and right).

Making data available online:



Web Search Store Retrieve Display (WSSRD) is a web database developed by Information Manufacturing Corporation (IMC) for displaying document images over the Internet. WSSRD contains images of original weather records, documents, rare books and environmental photographs. Images are designated to appropriate cabinets for storage and viewing.



In order to preserve historic observing practices and metadata, CDMP images various reference manuals and instructional materials for observers, past and present. Pictured from left to right: International Ship Code Reference Sheet (Netherlands Edition), WMO Pub. No. 47, Instructions to US Marine Meteorological Journals 1883.



Many different items are being preserved from the Thunder Bay National Marine Sanctuary and Underwater Preserve Research Collection. Through this imaging task, nearly 27,000 ship blueprints (top left), enrollment certificates with metadata (top right), photographs (bottom left), negatives, and slides are being preserved.



Partnering with four private sector contractors, CDMP has placed approximately 52 million images online and are now available to researchers around the globe.



Sample image from the Maury Journal (German) Cabinet as viewed in WSSRD. Access is user and password protected.

For access, please contact Cynthia.B.Karl@noaa.gov

Background image: Weather observations made by Captain R.W. Foster aboard the ship 'Garrick', July 1854, on his voyage from New York to Liverpool. The logbook entry is from an 1855 publication by Admiral M.F. Maury, imaged by CDMP as part of the rare books collection.

CDMP Project Partners:

