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Contents of the NASA Ocean Data System Archive

Version 11-90

Elizabeth A. Smith
Ruby A. Lassanyi

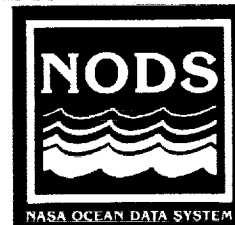
Editors

November 15, 1990

NASA

National Aeronautics and
Space Administration

Jet Propulsion Laboratory
California Institute of Technology
Pasadena, California



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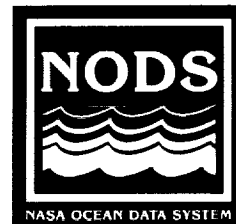
Editors

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National Aeronautics and
Space Administration

Jet Propulsion Laboratory
California Institute of Technology
Pasadena, California



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Abstract

The National Aeronautics and Space Administration (NASA) Ocean Data System (NODS) archive at the Jet Propulsion Laboratory (JPL) includes satellite data sets for the ocean sciences and global-change research to facilitate multidisciplinary use of satellite ocean data. Parameters include sea-surface height, surface-wind vector, sea-surface temperature, atmospheric liquid water, and surface pigment concentration. NODS will become the Data Archive and Distribution Service of the JPL Distributed Active Archive Center for the Earth Observing System Data and Information System (EOSDIS) and will be the United States distribution site for Ocean Topography Experiment (TOPEX)/POSEIDON data and metadata.

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Introduction

Welcome to the National Aeronautics and Space Administration (NASA) Ocean Data System (NODS).

Data are the lifeblood of the ocean sciences, and only satellites provide data on a global scale. It is widely accepted that long time series of key oceanographic variables with global coverage, such as sea-surface height, surface wind, sea-surface temperature, and surface-layer phytoplankton abundances, are needed for ocean-sciences research. Unrestricted and timely access to these data is critical to the success of many programs, including Tropical Ocean Global Atmosphere (TOGA), World Ocean Circulation Experiment (WOCE), Global Ocean Flux Studies (GOFS), Earth Observing System (EOS), and the International Geosphere–Biosphere Program (IGBP). Because NODS preserves data products for a long time and distributes high-level data sets, the cumulative value of data collection efforts will be better realized. Sharing data at a central location enables the creation of new data sets by merging two or more existing data sources.

The NODS archive includes satellite data sets for the ocean sciences and global-change research to facilitate multidisciplinary use of satellite ocean data. NODS will become the Data Archive and Distribution Service of the Jet Propulsion Laboratory (JPL) Distributed Active Archive Center for the Earth Observing System Data and Information System (EOSDIS) and will be the United States distribution site for Ocean Topography Experiment (TOPEX)/POSEIDON data and metadata.

NODS is devoted to the archiving and distribution of satellite ocean measurements related to altimetry, scatterometry, and microwave radiometry (excluding frozen-ocean applications) and has identified the following applications urgently needed by ocean scientists:

- (1) Access to high-level satellite ocean data sets
- (2) Rapid delivery of data
- (3) Temporal- and spatial-data subsetting services

- (4) User-friendly access to information about NODS data via electronic networks to the Master Directory at NASA Goddard and to inventories
- (5) Inventories to facilitate data-granule location and ordering
- (6) CD-ROMs containing single- and multi-sensor ocean data
- (7) Reprocessed high-level satellite ocean data sets
- (8) Standards for classifying, documenting, and archiving data to facilitate access to data
- (9) Practices that encourage researchers to share high-level data products within the oceanographic community

NODS looks forward to hearing from you. Please contact NODS regarding details of data-set granularity, available distribution media, and formats. Referenced documentation may be obtained from the open literature or by contacting the JPL Document Review Group for copies of JPL Internal Documents. Questions about NODS, requests for data, and comments or suggestions are welcomed. Please contact us at the addresses or phone numbers listed below.

For NODS information:

Jet Propulsion Laboratory
NASA Ocean Data System
M/S 300-320
4800 Oak Grove Drive
Pasadena, CA 91109, U.S.A.

NODS.JPL on OMNET
STANS::RAL on SPAN

818-354-0906 (Ruby Lassanyi)
818-354-6980 (Elizabeth Smith)

TELEX: 675429 (Attention: NODS)
FAX: 818-393-6720 (Attention: NODS)

For copies of JPL Internal Documents:

Jet Propulsion Laboratory
Document Review Group
M/S 111-120
4800 Oak Grove Drive
Pasadena, CA 91109, U.S.A.

818-354-3187 (Document Review
Group)

Sea-Surface Height

1. Geos-3 Altimeter

data type: Geophysical data record
coverage: 14 April 1975–1 December 1978, global
smallest granule: Specific periods and regions
data set volume: 170 MB
reference: Agreen, R. W. (1982) "The 3.5-Year Geos-3 Data Set,"
NOAA Technical Memorandum NOS NGS 33, 8 pp.

2. Seasat Altimeter

data type: Sensor data record
coverage: 7 July 1978–10 October 1978, global
smallest granule: 1 orbit
data set volume: 440 MB
reference: JPL/Seasat Project (1979) *Seasat-A Sensor Data
Record Tape Specification: Interface Control
Document and Telemetry Dictionary*, JPL Internal
Document 622-57, Rev. A.

3. Seasat Altimeter

data type: Geophysical data record
coverage: 7 July 1978–10 October 1978, global
smallest granule: Specific periods and regions
data set volume: .350 MB = 14 tapes
reference: (a) JPL/Seasat Project (1980) *Geophysical Data
Record (GDR) User's Handbook: Altimeter*, JPL
Internal Document 622-97, Rev. A.
(b) JPL/Seasat Project (1980) *Altimeter Geophysical
Algorithm Specifications*, JPL Internal Document
622-226.

4. Geosat Altimeter

data type: Zlotnicki-Fu interpolated along track
coverage: 6 November 1986–26 September 1989, global
smallest granule: Specific periods and regions
data set volume: 560 MB = 6 tapes
reference: Zlotnicki, V., A. Hayashi, and L. Fu (1989) *The JPL-
Oceans-8902 Version of the Geosat Altimetry Data*,
JPL Internal Document D-6939, 15 pp.



Surface-Wind Vector (and Sigma-Naught)

1. Seasat Scatterometer

data type: Sensor data record
coverage: 7 July 1978–10 October 1978, global
smallest granule: 1 orbit
data set volume: 8000 MB
reference: JPL/Seasat Project (1979) *Seasat-A Sensor Data Record Tape Specification: Interface Control Document and Telemetry Dictionary*, JPL Internal Document 622-57, Rev. A.

2. Seasat Scatterometer

data type: Geophysical data record
coverage: 7 July 1978–10 October 1978, global
smallest granule: Specific periods and regions
data set volume: 340 MB
reference: Boggs, D. H. (1982) *Geophysical Data Record (GDR) User's Handbook—Scatterometer*, JPL Internal Document 622-232.

3. Seasat Scatterometer

data type: Carsey and Pihos gridded, 100-km-by-100-km, polar, daily, unattenuated, sigma-naught statistics (mean, standard deviation, minimum, maximum)
coverage: 7 July 1978–10 October 1978, north and south polar grids
smallest granule: Entire data set (1 tape)
data set volume: 149 MB
reference: Carsey, F. and G. Pihos (1983) "SASS Polar Gridded Data," Unpublished Manuscript.

4. Seasat Scatterometer

data type: Wentz forward and aft sigma-naught data collocated into 50-km-by-50-km cells

coverage: 7 July 1978–10 October 1978, global

smallest granule: 6 days (1 tape)

data set volume: 1767 MB = 16 tapes

reference: Wentz, F. J. (1982) *Documentation for Program Order: Collocating SASS Sensor Data in 50 km Bins*, Remote Sensing Systems Technical Report 113082, Remote Sensing Systems, 1101 College Avenue, Santa Rosa, CA 95404, 23 pp.

5. Seasat Scatterometer

data type: Atlas et al. dealiased, gridded, 100-km-by-100-km, surface-wind vectors (SASS 1 algorithm with atmospheric general circulation model)

coverage: 7 July 1978–10 October 1978, global

smallest granule: Entire data set (2 tapes, binary; 4 tapes, EBCDIC)

data set volume: 635 MB

reference: Atlas, R., A. J. Busalacchi, M. Ghil, E. Kalnay, and S. Bloom (1987) "Global surface wind and flux fields from model assimilation of Seasat data," *Journal of Geophysical Research*, 92, 6477–6487.

6. Seasat Scatterometer

data type: Wentz, Atlas, and Freilich dealiased, gridded, 100-km-by-100-km, surface-wind vectors (SASS 2 algorithm)

coverage: 7 July 1978–10 October 1978, global

smallest granule: Entire data set (2 tapes)

data set volume: 258 MB

reference: Wentz, F. (1986) *User's Manual Seasat Scatterometer Wind Vectors*, Remote Sensing Systems Technical Report 081586, Remote Sensing Systems, 1101 College Avenue, Santa Rosa, CA 95404, 21 pp.

7. Seasat Scatterometer

data type: JPL-UCLA-AES dealiased, gridded, 1-degree-by-1-degree, 6-hourly, surface-wind vectors (SASS 1 algorithm)

coverage: 6 September 1978–20 September 1978, global

smallest granule: Entire data set (1 tape)

data set volume: 54 MB

reference: Wurtele, M. G., P. M. Woiceshyn, S. Peteherych, M. Borowski, and W. S. Appleby (1982) "Wind direction alias removal studies of Seasat scatterometer derived wind fields," *Journal of Geophysical Research*, 87, 3365–3377.

8. Seasat Scatterometer

data type: Chelton et al. gridded, 2.5-degree-by-2.5-degree, monthly, surface-wind vector (from Atlas et al. dealiased, surface-wind vectors; see Surface-Wind Vector, page 6, item 5)

coverage: 7 July 1978–10 October 1978, global

smallest granule: One month, global (1 tape)

data set volume: 0.5 MB

reference: Chelton, D. B., A. M. Mestas-Nunez, and M. H. Freilich (1990) "Global wind stress and Sverdrup circulation from the Seasat Scatterometer," *Journal of Physical Oceanography*, 20, 1175–1205.

9. DMSP Special-Sensor Microwave Imager

data type: Atlas 6-hourly, surface-wind vectors (directions assigned) at SSM/I data locations

coverage: June 1987–July 1988, global

smallest granule: One month, global (1 tape)

data set volume: 11 tapes

reference: Atlas, R. and S. C. Bloom (1989) "Global surface wind vectors resulting from the assimilation of satellite wind speed data in atmospheric general circulation models," *OCEANS '89 Proceedings*, IEEE Publication Number 89CH2780-5, 260–265.

10. Atlas Gridded, Surface-Wind Analysis

data type: Atlas gridded, 2-degree-latitude-by-2.5-degree-longitude, 6-hourly, surface-wind analysis combining SSM/I winds, ship, and buoy reports and model first-guess winds

coverage: June 1987–July 1988, global

smallest granule: One month, global (1 tape)

data set volume: 11 tapes

reference: Atlas, R. and S. C. Bloom (1989) "Global surface wind vectors resulting from the assimilation of satellite wind speed data in atmospheric general circulation models," *OCEANS '89 Proceedings*, IEEE Publication Number 89CH2780-5, 260–265.

Surface-Wind Speed

1. Geos-3 Altimeter

data type: Geophysical data record
coverage: 14 April 1975–1 December 1978, global
smallest granule: Specific periods and regions
data set volume: 170 MB
reference: Agreen, R. W. (1982) "The 5-Year Geos-3 Data Set," NOAA Technical Memorandum NOS NGS 33, 8 pp.

2. Seasat Altimeter

data type: Sensor data record
coverage: 7 July 1978–10 October 1978, global
smallest granule: 1 orbit
data set volume: 440 MB
reference: JPL/Seasat Project (1979) *Seasat-A Sensor Data Record Tape Specification: Interface Control Document and Telemetry Dictionary*, JPL Internal Document 622-57, Rev. A.

3. Seasat Altimeter

data type: Geophysical data record
coverage: 7 July 1978–10 October 1978, global
smallest granule: Specific periods and regions
data set volume: 350 MB
reference: (a) JPL/Seasat Project (1980) *Geophysical Data Record (GDR) User's Handbook: Altimeter*, JPL Internal Document 622-97, Rev. A.
(b) JPL/Seasat Project (1980) *Altimeter Geophysical Algorithm Specifications*, JPL Internal Document 622-226.

4. **Seasat Scanning, Multichannel Microwave Radiometer**

data type: Sensor data record
coverage: 7 July 1978–10 October 1978, global
smallest granule: 1 orbit
data set volume: 5680 MB
reference: JPL/Seasat Project (1979) *Seasat-A Sensor Data Record Tape Specification: Interface Control Document and Telemetry Dictionary*, JPL Internal Document 622-57, Rev. A.

5. **Seasat Scanning, Multichannel Microwave Radiometer**

data type: Geophysical data record
coverage: 7 July 1978–10 October 1978, global
smallest granule: Specific periods and regions
data set volume: 170 MB
reference: JPL/Seasat Project (1982) *Geophysical Data Record (GDR) User's Handbook: SMMR*, JPL Internal Document 622-205, Rev. A.

6. **DMSP Special-Sensor Microwave Imager**

data type: Wentz geophysical tapes, daily, 25-km-by-25 km cells of wind speed
coverage: July 1987–December 1988, global
smallest granule: Two weeks, global (1 tape)
data set volume: 2758 MB = 35 tapes
reference: Wentz, F. J. (1989) *User's Manual: SSM/I Geophysical Tapes*, Remote Sensing Systems Technical Report 060989, Remote Sensing Systems, 1101 College Avenue, Santa Rosa, CA 95404, 16 pp.

7. DMSP Special-Sensor Microwave Imager

data type: Wentz SSM/I collocated with Geosat
coverage: July 1987–December 1989, global
smallest granule: Entire data set (1 tape)
data set volume: 150 MB = 1 tape
reference: Wentz, F. J. (1990) *User's Manual: Collocated Geosat-SSM/I Tape, 1987-1989*, Remote Sensing Systems Technical Report 100190, Remote Sensing Systems, 1101 College Avenue, Santa Rosa, CA 95404, 3 pp.

Surface-Wind Stress Vector

1. Seasat Scatterometer

data type: Chelton et al. gridded, 2.5-degree-by-2.5-degree, monthly, wind stress (from Atlas et al. dealiased, surface-wind vectors; see Surface-Wind Vector, page 6, item 5)

coverage: 7 July 1978–10 October 1978, global

smallest granule: One month, global (1 tape)

data set volume: 0.5 MB

reference: Chelton, D. B., A. M. Mestas-Nunez, and M. H. Freilich (1990) "Global wind stress and Sverdrup circulation from the Seasat Scatterometer," *Journal of Physical Oceanography*, 20, 1175–1205.



Integrated Water Vapor

1. Seasat Scanning, Multichannel Microwave Radiometer

data type: Sensor data record
coverage: 7 July 1978–10 October 1978, global
smallest granule: 1 orbit
data set volume: 5680 MB
reference: JPL/Seasat Project (1979) *Seasat-A Sensor Data Record Tape Specification: Interface Control Document and Telemetry Dictionary*, JPL Internal Document 622-57, Rev. A.

2. Seasat Scanning, Multichannel Microwave Radiometer

data type: Geophysical data record
coverage: 7 July 1978–10 October 1978, global
smallest granule: Specific periods and regions
data set volume: 170 MB
reference: JPL/Seasat Project (1982) *Geophysical Data Record (GDR) User's Handbook: SMMR*, JPL Internal Document 622-205, Rev. A.

3. NOAA Tiros Operational Vertical Sounder

data type: Emery et al. gridded, 1-degree-by-1-degree, weekly, vertically integrated water vapor
coverage: 1 January 1987–16 August 1987, global
smallest granule: Entire data set (1 tape)
data set volume: 4 MB
reference: Emery, W., G. Born, D. Baldwin, and C. Norris (1990) "Satellite derived water vapor corrections for Geosat altimetry," *Journal of Geophysical Research*, Special Geosat Issue, Part 1, 95, 2953–2965.

4. DMSP Special-Sensor Microwave Imager

data type: Emery et al. gridded, 1-degree-by-1-degree, weekly, vertically integrated water vapor
coverage: 15 July 1987–16 August 1987, global
smallest granule: Entire data set (1 tape)
data set volume: 4 MB
reference: Emery, W., G. Born, D. Baldwin, and C. Norris (1990) "Satellite derived water vapor corrections for Geosat altimetry," *Journal of Geophysical Research*, Special Geosat Issue, Part 1, 95, 2953–2965.

5. DMSP Special-Sensor Microwave Imager

data type: Wentz geophysical tapes, daily, 25-km-by-25-km cells of integrated water vapor
coverage: July 1987–December 1988, global
smallest granule: Two weeks, global (1 tape)
data set volume: 2758 MB = 35 tapes
reference: Wentz, F. J. (1989) *User's Manual: SSM/I Geophysical Tapes*, Remote Sensing Systems Technical Report 060989, Remote Sensing Systems, 1101 College Avenue, Santa Rosa, CA 95404, 16 pp.

6. Fleet Numerical Oceanographic Center

data type: Wet and dry tropospheric corrections as applied to the Zlotnicki-Fu Geosat altimeter data (see Sea-Surface Height, page 3, item 4)
coverage: 8 November 1986–28 December 1988, global
smallest granule: Entire data set (2 tapes)
data set volume: 284 MB
reference: Cheney, R. E., B. C. Douglas, R. W. Agreen, L. Miller, D. L. Porter, and N. S. Doyle (1987) "Geosat Altimeter Geophysical Data Record Handbook," NOAA Technical Memorandum NOS NGS 46, 29 pp.

7. DMSP Special-Sensor Microwave Imager

data type: Wentz SSM/I collocated with Geosat
coverage: July 1987–December 1989, global
smallest granule: Entire data set (1 tape)
data set volume: 150 MB = 1 tape
reference: Wentz, F. J. (1990) *User's Manual: Collocated Geosat-SSM/I Tape, 1987-1989*, Remote Sensing Systems Technical Report 100190, Remote Sensing Systems, 1101 College Avenue, Santa Rosa, CA 95404, 3 pp.



Atmospheric Liquid Water

1. Seasat Scanning, Multichannel Microwave Radiometer

data type: Sensor data record
coverage: 7 July 1978–10 October 1978, global
smallest granule: 1 orbit
data set volume: 5680 MB
reference: JPL/Seasat Project (1979) *Seasat-A Sensor Data Record Tape Specification: Interface Control Document and Telemetry Dictionary*, JPL Internal Document 622-57, Rev. A.

2. Seasat Scanning, Multichannel Microwave Radiometer

data type: Geophysical data record
coverage: 7 July 1978–10 October 1978, global
smallest granule: Specific periods and regions
data set volume: 170 MB
reference: JPL/Seasat Project (1982) *Geophysical Data Record (GDR) User's Handbook: SMMR*, JPL Internal Document 622-205, Rev. A.

3. DMSP Special-Sensor Microwave Imager

data type: Wentz geophysical tapes, daily, 25-km-by-25-km cells of atmospheric liquid water
coverage: July 1987–December 1988, global
smallest granule: Two weeks, global (1 tape)
data set volume: 2758 MB = 35 tapes
reference: Wentz, F. J. (1989) *User's Manual: SSM/I Geophysical Tapes*, Remote Sensing Systems Technical Report 060989, Remote Sensing Systems, 1101 College Avenue, Santa Rosa, CA 95404, 16 pp.

4. DMSP Special-Sensor Microwave Imager

data type: Wentz SSM/I collocated with Geosat
coverage: July 1987–December 1989, global
smallest granule: Entire data set (1 tape)
data set volume: 150 MB = 1 tape
reference: Wentz, F. J. (1990) *User's Manual: Collocated Geosat-SSM/I Tape, 1987-1989*, Remote Sensing Systems Technical Report 100190, Remote Sensing Systems, 1101 College Avenue, Suite 220, Santa Rosa, CA 95404, 3 pp.

Sea-Surface Temperature

1. Seasat Scanning, Multichannel Microwave Radiometer

data type: Sensor data record
coverage: 7 July 1978–10 October 1978, global
smallest granule: 1 orbit
data set volume: 5680 MB
reference: JPL/Seasat Project (1979) *Seasat-A Sensor Data Record Tape Specification: Interface Control Document and Telemetry Dictionary*, JPL Internal Document 622-57, Rev. A.

2. Seasat Scanning, Multichannel Microwave Radiometer

data type: Geophysical data record
coverage: 7 July 1978–10 October 1978, global
smallest granule: Specific periods and regions
data set volume: 170 MB
reference: JPL/Seasat Project (1982) *Geophysical Data Record (GDR) User's Handbook: SMMR*, JPL Internal Document 622-205, Rev. A.

3. Seasat Visible and Infrared Radiometer

data type: Sensor data record
coverage: 7 July 1978–10 October 1978, global
smallest granule: 1 orbit
data set volume: 2400 MB
reference: JPL/Seasat Project (1979) *Seasat-A Sensor Data Record Tape Specification: Interface Control Document and Telemetry Dictionary*, JPL Internal Document 622-57, Rev. A.

4. TIROS-N/NOAA Advanced, Very-High-Resolution Radiometer

data type: U. Miami/RSMAS gridded, 18-km-by-18-km, weekly, interpolated, multichannel sea-surface temperature

coverage: October 1981–March 1990, global

smallest granule: Specific regions and weekly

data set volume: 4760 MB = 34 tapes; 1 tape = 12 weeks

reference: (a) McClain, E. P., W. G. Pichel, and C. C. Walton (1985) "Comparative performance of AVHRR-based multichannel sea surface temperatures," *Journal of Geophysical Research*, 90, 11587–11601.

(b) Olson, D. B., G. P. Podesta, R. H. Evans, and O. B. Brown (1988) "Temporal variation in the separation of Brazil and Malvinas Currents," *Deep-Sea Research*, 35, 1971–1990.

(c) NASA Ocean Data System (1990), "A User's Guide to the NOAA AVHRR MCSST Data Set Produced by The University of Miami/School of Marine and Atmospheric Science," Unpublished Manuscript.

Phytoplankton Pigment Concentration

1. **Nimbus-7 Coastal-Zone Color Scanner (West Coast Time Series)**

- data type: Abbott and Zion images of phytoplankton pigment concentration
- coverage: 27 February 1979–16 June 1986
20N–55N, 105W–140W
- smallest granule: 1 image per day; high resolution (tile), low resolution (mosaic), and cloud image
- data set volume: 2700 MB
- reference: Abbott, M. A. and P. Zion (1987) "Spatial and temporal variability of phytoplankton pigment off Northern California during Coastal Ocean Dynamics Experiment 1 (CODE1)," *Journal of Geophysical Research*, 92, 1745–1755.
- note 1: Single scattering Rayleigh atmospheric correction used
- note 2: All data available on magnetic tape from M. Abbott, College of Oceanography, Oregon State University, Corvallis, OR 97331
[M.ABBOTT/OMNET]
- note 3: Data from 27 February 79–31 December 81 available on CD-ROM together with software for use on IBM PC and Apple Macintosh computers



Sea-Ice Extent/Concentration

1. Seasat Scanning, Multichannel Microwave Radiometer

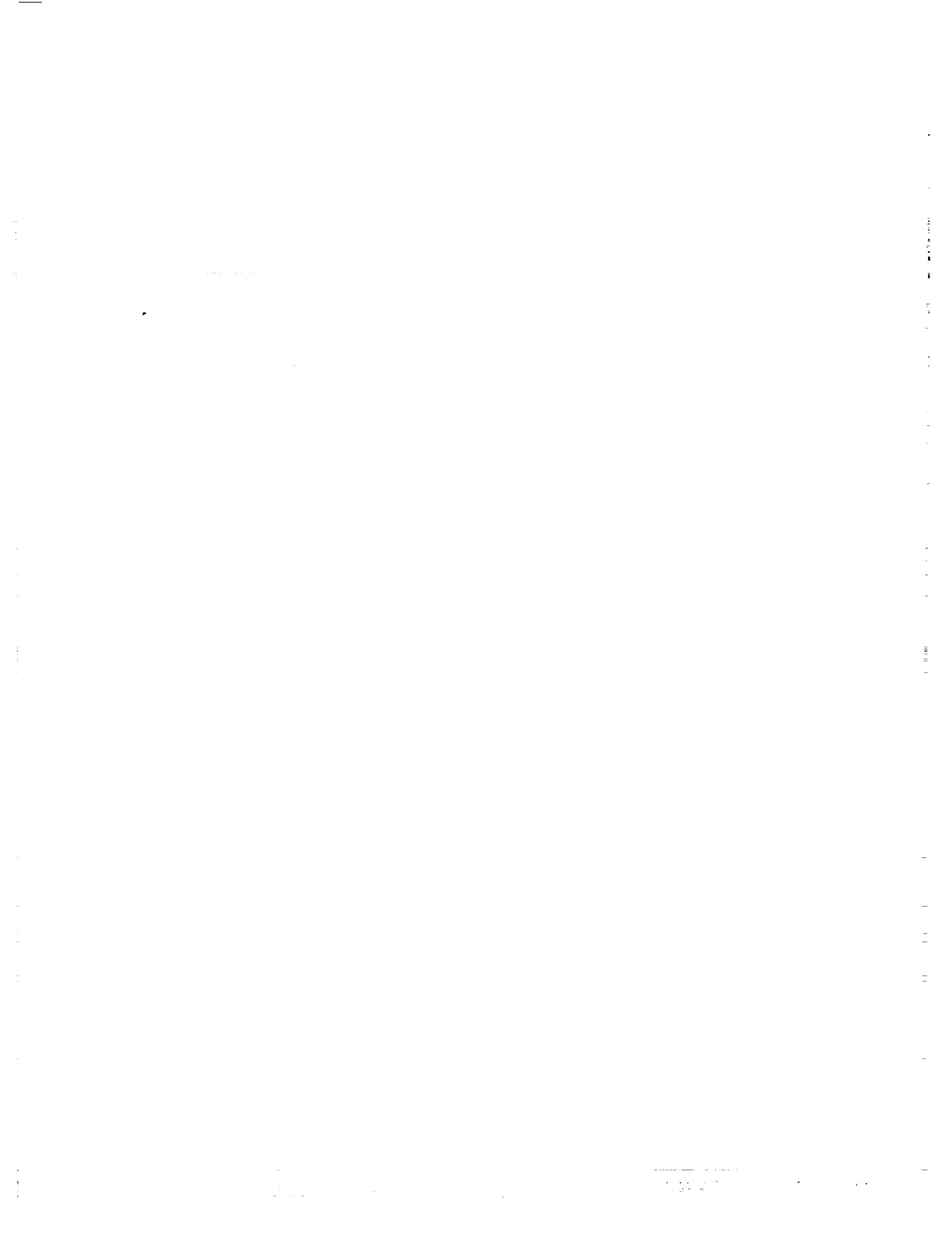
data type: Carsey and Pihos gridded, 100-km-by-100-km, polar, daily, brightness-temperature statistics (mean, standard deviation, minimum, maximum)

coverage: 7 July 1978–10 October 1978, north and south polar grids

smallest granule: Entire data set (1 tape)

data set volume: 70 MB

reference: Carsey, F. and G. Pihos (1983) "Seasat SMMR Polar Gridded Data," Unpublished Manuscript.

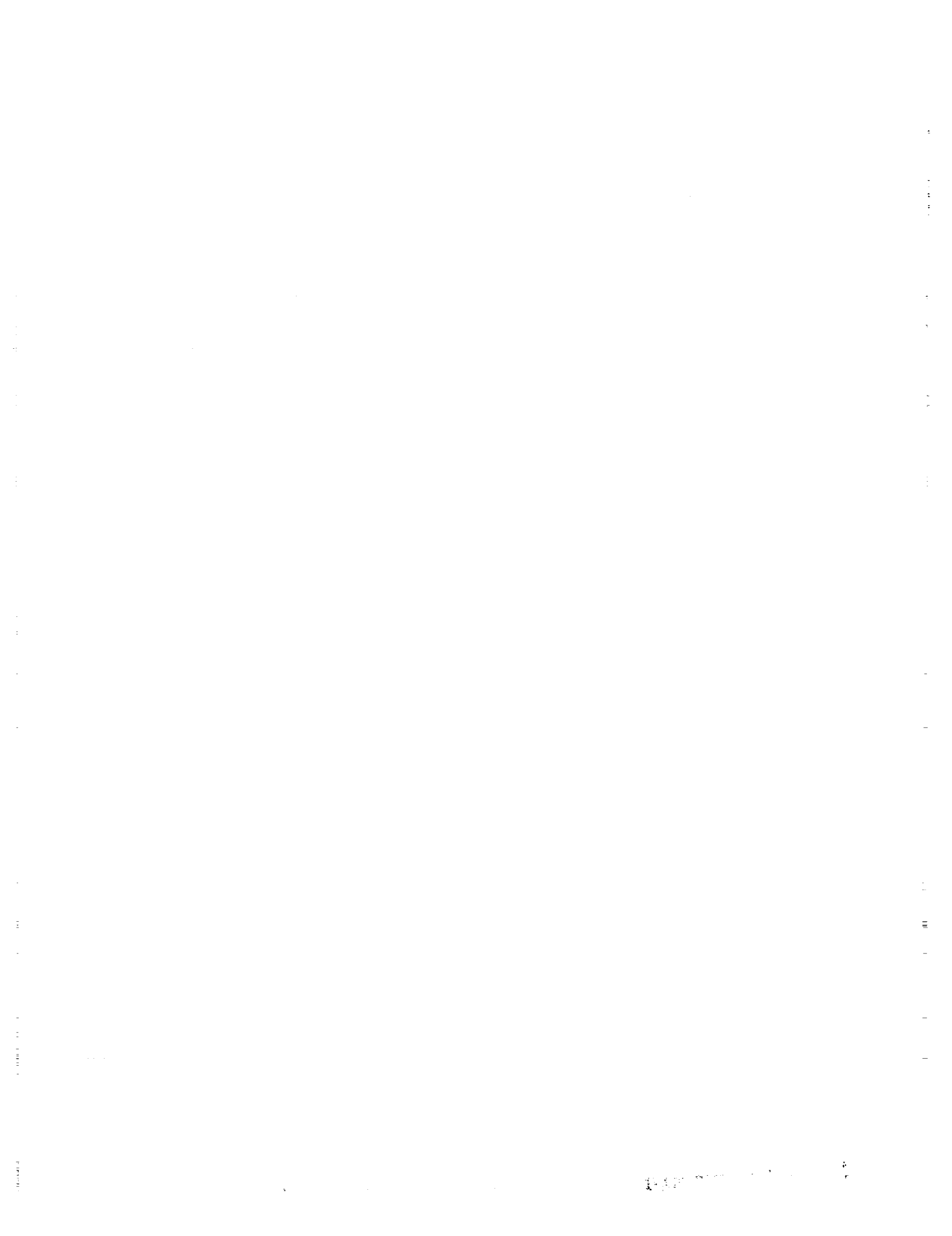


IMAGIC

IMAGIC is an image processing software package for the Apple Macintosh and was written by Dr. Charles Norris and Dr. William Emery, Colorado Center for Astrodynamics Research, Campus Box 431, University of Colorado, Boulder, CO 80309.

IMAGIC is useful for working with any type of data that can be viewed as two-dimensional images. Though written primarily to process satellite-derived imagery, IMAGIC can also be used for visualization of numerical data and for medical image processing.

IMAGIC runs on any Apple Macintosh computer with a color monitor. This includes the Macintosh II, Macintosh IIX, Macintosh IICX, and the new Macintosh IICX. The program requires that your Macintosh be running System 6.0 or later. Two megabytes of RAM and a hard disk are also recommended.



CD-ROM Technical Information

NODS has compiled a set of references to help those receiving data products on CD-ROM learn more about CD-ROM technology, hardware requirements, and availability. The references are taken from the following sources:

1) "The Voyager Uranus Imaging CD-ROMs" by Eric Elaison of the U.S. Geological Survey, Flagstaff, AZ and Michael Martin of the Planetary Data System (PDS) at the Jet Propulsion Laboratory, Pasadena, CA. This document was produced by the PDS and is available from JPL/NODS at the address given in the Introduction, page 2.

2) *CD-ROM EndUser*, a monthly magazine published by DDRI, 6609 Rosecroft Place, Falls Church, VA 22043-1828, (703) 241-2131.

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16. Abstract The National Aeronautics and Space Administration (NASA) Ocean Data System (NODS) archive at the Jet Propulsion Laboratory (JPL) includes satellite data sets for the ocean sciences and global-change research to facilitate multidisciplinary use of satellite ocean data. Parameters include sea-surface height, surface-wind vector, sea-surface temperature, atmospheric liquid water, and surface pigment concentration. NODS will become the Data Archive and Distribution Service of the JPL Distributed Active Archive Center for the Earth Observing System Data and Information System (EOSDIS) and will be the United States distribution site for Ocean Topography Experiment (TOPEX)/POSEIDON data and metadata.			
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