Standardbericht

5 von **7** Befragten wird/werden angezeigt

Beantwortungstyp:
Normale Beantwortung

Collector:
G-VAP Metadata (Dataset 01)
(E-Mail-Einladung)

E-Mail-Adresse:
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Name:
Janice Bytheway

Benutzerdefinierter Wert:
leer

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Beantwortung gestartet:
15. Juli 2013 16:23:52

Beantwortung geändert:
26. September 2013 00:00:34

1. Organization(s) owning the data record described below

Format: Official name in national language (English if available)
Example: Deutscher Wetterdienst (German Weather Service)

National Aeronautics and Space Administration

2. Commonly used acronym or short name for the above organisation

Example: DWD

NASA

3. G-VAP contact person for the data record described below

Format: Last name, first name
Example: Smith, Jane

Tom Vonder Haar

4. E-mail address of the G-VAP contact person

thomas.vonderhaar@colostate.edu

5. Reference date for this G-VAP catalogue entry

Format: DD/MM/YYYY
Example: 31/12/2012

25/09/2013

6. Event used to describe the catalogue entry reference date

Creation

7. Title, i.e. the name usually used to identify the data record

NASA Water Vapor Project - MEaSUREs

8. Acronym or short name under which data record is commonly known

NVAP-M

9. Processing version of the data record

Format: Specify "no versioning", if no formal versioning scheme has been established

0.0

10. Purpose of data record within G-VAP

Dataset to be evaluated

11. Language(s) used within data record

Format: Provide language codes according to ISO 639-2

ENG [english]

12. Reference date for the data record

Format: DD/MM/YYYY
Example: 13/11/2006

01/04/2013

13. Event used to describe the data record reference date

Publication

14. Brief description (=abstract) of the data record's contents

The abstract should provide a clear and concise statement that enables the reader to understand the content of the data record.

Please respect the following rules:
a) Aim to be understood by non-experts
b) Do not include general background information
c) Avoid jargon and unexplained abbreviations
d) The abstract should be in English
e) The abstract should not exceed 1000 characters

Example (taken from the guidelines on WMO core metadata profile):
Products from the METNO Numerical Weather Prediction model. METNO is running the HIRLAM model. Check out http://www.hirlam.org/ for details. The model output has been subsetted, reprojected and reformatted using FIMEX (http://wiki.met.no/fimex/).
Grid resolution [degrees]: 0.216 X 0.216
Contained fields: potential temperature [K], geopotential height [m**2 s**-2], u velocity [m s**-1], v velocity [m s**-1], vertical velocity [Pa s**-1] and relative humidity [%]
Levels [hPa]: 1000, 925, 850, 700, 500, 400, 300, 250, 200, 150, 100, 70, 50, 30 and 10
Forecast offset times [hours]: 0, 3, 6, 9, 12, 15, 18, 21, 24, 30, 36, 42, 48, 54, 60 and 66

The NASA MEaSUREs (Making Earth System Data Records for Use in Research Environments) program began in 2008 and has the goal of creating stable, community accepted Earth System Data Records (ESDRs) for a variety of geophysical time series. The NASA Water Vapor Project (NVAP) - MEaSUREs data set version 0.0 was released in April 2013 and completely replaces the heritage NVAP data set created in the 1990's. It was created from polar orbiter satellite data along with radiosondes and surface-based Global Positioning System meaurements. It contains three data types oriented towards different users: Climate strives for maximum temporal consistency. Weather strives for maximum spatial and temporal coverage and Ocean is a microwave-only record over the ocean. Grid resolution: 1 degree (Ocean and Climate) or 1/2 degree (Weather data) Contained relevant fields: Total and layered precipitable water vapor. Data source codes. Layers: Total column, plus 1000 - 700 hPa, 700 - 500 hPa, 500 - 300 hPa, < 300 hPa. Time resolution: Climate and Ocean: once / day. Weather: 4 x / day. Time period: 1988-2009.

15. Main geophysical parameter(s) in the data record

Precipitable water (kg/m2)

Other (Use Table 4.2 of the WMO Codes to specify parameters not listed above) - Layer precipitable water vapor

16. Processing level according to the WMO definition

Level 4: Composite product (multisource) or result of model analysis of lower level data

17. If the data record is of Level-3 type, can underlying Level-2 data be provided?

Keine Beantwortung

18. Ancillary information in the data record of special interest to G-VAP

Other (please specify) - Satellite and surface-based gridded data source codes are provided.

19. Satellite instrument(s) used to generate the data record.

Specify "NONE" (first row) in case no satellite data have been used to produce the data record.

	Main instrument(s) (1)	Ancillary instrument(s) (2)
NONE		
AATSR	X	
AIRS		
AMSR-E		
AMSU-B		
ASTER		
ATMS		
ATOVS		
CERES		
CrIS		
ERBE		
GOME		
GOME-2		
HIRS	X	
IASI		
MERIS		
MHS		
MODIS		
MVIRI		
MWR		
POLDER		
SCIAMACHY		
SEVIRI		
SSM/I	X	
SSM/IS		
TES		
TOVS		

Other instruments not listed above (see EO Handbook). Indicate also whether "other" acts as main or ancillary data source::

20. In-situ and/or ground-based remote sensing techniques or data used to generate the data record.

Specify "NONE" (first row) in case such techniques have not been used to produce the data record.

	Main instrument(s) (1)	Ancillary instrument(s) (2)

NONE		
Airborne in-situ observations		
Frost-point hygrometer		
Ground-based GNSS atmospheric sounding		X
GPS radio occultation		
Interferometry (SWIR/TIR)		
Lidar		
Radiative fluxes (pyranometer, etc.)		
Radiometer (microwave)		
Radiometer (SWIR/TIR)		
Radiometer (UV/VIS/NIR)		
Radiosondes	X	
Other instruments not listed above. Indicate also whether "other" acts as main or ancillary data source::		

21. Re-analysis scheme(s) used to generate the data record.

Specify "NONE" (first row) if such schemes have not been used to generate the data record.

	Main data source (1)	Ancillary data source (2)
NONE		
ERA Interim		
JRA55		
MERRA		X
NCEP/DOE R2		
Other (please specify)::		

22. North-south density of the information in data record

Format: Provided as ground sampling distance (value plus unit, e.g. 0.01 deg). Specify "0.0" in case data represent a single location.

1.0 degree or 0.5 degree

23. East-west density of the information in data record

Format: Provided as ground sampling distance (value plus unit, e.g. 10 km). Specify "0.0" in case data represent a single location.

1.0 degree or 0.5 degree

24. Number of distinct vertical layers within data record

Specify N=1 for total column products. Provide textual description in case one single number can't be assigned.

5

25. Typical timespan between sequential information in data record

26. Typical delay between instrumental observation and release of the processed data product

Irregularly

27. Geographical bounding box: Co-ordinates of minimum bounding rectangle fully encompassing the data record.

In case data record represents one single location, enter identical values for the two corners of the bounding box.

Longitudes in deg. between -180° and +180° (east. hemisphere pos.)
Latitudes in deg. between -90° and +90° (north. hemisphere pos.)

Northernmost latitude - 90.0
Southernmost latitude - -90.0
Easternmost longitude - 180.0
Westernmost longitude - -180.0

28. Number of geographically distinct sites in data record.

Specify N=1 for data records from one single station. Data records derived from satellite measurements will typically have N>10000 distinct sites.

>10000

29. Vertical extension represented by the data record

Format: Value plus unit (e.g. 1013 hPa).

Bottommost boundary - Surface
Topmost boundary - < 300 hPa

30. Time span covered by data record

Format: DD/MM/YYYY

Earliest date - 01/01/1988
Latest date - 31/12/2009

31. Limitations and known issues affecting the fitness for use of data record

Format: indicate relevant limitations in short sentences

Example:
1.) Data quality is poor north of 60°N (known issue)
2.) Product available for clear sky conditions only (limitation)
3.) Data gap between 11/2006 and 01/2008 (limitation)

1) < 300 hPa water vapor only has signal in the Tropics. 2) Clear sky sampling bias present over land. 3) Ocean total column water vapor is the most reliable component of NVAP-M. 4) Land product less reliable before 2003 due to lack of AIRS data 5) HIRS record might contain time-dependent biases (currently under investigation)

32. Constraints relating to intellectual property

Data records submitted to G-VAP need to adhere to the G-VAP data policy. Otherwise, a data record can not be accepted to the G-VAP activities.

In case you're interested in participating to G-VAP but can't adhere to the data policy, please contact the G-VAP co-chairs.

Adheres to the G-VAP data policy

33. Short statement of how the data record was created

Where possible, include statements on the following:
1.) Source data, also list important ancillary data
2.) Data processing, e.g. retrieval method, resampling
3.) Method of updating
4.) Quality control processes
5.) Other important facts, e.g. product derived from FCDR

As a minimum, a general statement should be made about the provenance of the dataset.

NVAP-M emphasizes time-consistent radiances and algorithms. SSM/I total precipitable water vapor derived from new FCDR produced at Colorado State University with retrieval of Elsaesser and Kummerow (2008). HIRS layered and total precipitable water retrieved from NCDC intercalibrated radiances using algorithm of Engelen and Stephens (1999). A priori climatology derived from AIRS Version 5 level 3 product for 2003-2009. AIRS Version 5 retrievals used, Version 6 became available after project completion. Radiosondes from the NOAA IGRA data set. A simple error-weighted merge is performed at each grid box. No spatial or temporal smoothing is applied. Missing data regions are left missing rather than being interpolated.

34. Short statement on the quality of the satellite radiances used to derive the data record

This question only applies to satellite derived data records. State "does not apply" for all other data.

SSM/I radiance quality is expected to be excellent following a recent intensive intercalibration effort (see recent papers by Berg, Sapiano). HIRS radiance quality should be good from NCDC intercalibration, although further improvements are likely possible. Spectral change of HIRS channel 10 through time might cause some discontinuities. AIRS quality should be excellent.

35. Short statement on uncertainty estimates and degree of homogeneity/stability

Uncertainty is based on each published retrieval algorithm (SSM/I, HIRS, AIRS). NVAP-M Weather has no attempt at time stability. NVAP-M Climate does not use GPS data since it is only available for part of 1988 - 2009.

36. Method used for data record evaluation

Indirect: External knowledge has been used for evaluation (e.g. plausibility considerations)

Other/Comments - Many possible of measurements were not used (e.g. TOPEX, SCIAMACHY, GOME, MODIS...), so many types of indpendent comparisons are possible.

37. Ancillary data fundamental to the evaluation of data record

For each referenced dataset, provide as a minimum the following information:
1.) Title
2.) Acronym (if applies)
3.) Owner
4.) URL to dataset (if available)

Keine Beantwortung

38. Validation/evaluation report(s)

For each referenced document, provide as a minimum the following information:
1.) Authors(s)
2.) Document title
3.) Year of creation
4.) URL to document (if available)

State "not established" in case no validation/evaluation report has been established

Vonder Haar, T. H., J. L. Bytheway and J. M. Forsythe, 2012: Weather and climate analyses using improved global water vapor observations. Geophys. Res. Lett., 39, L16802, doi:10.1029/2012GL052094 Vonder Haar, T. H., J. Forsythe, J. L. Bytheway NASA Water Vapor Project - MEaSUREs Algorithm Theoretical Basis Document Version 2 https://eosweb.larc.nasa.gov/sites/default/files/project/nvap/NVAP_M_ATBD_Feb2013.pdf

39. Targeted user segment(s) for data record

Example: Meteorological services, environmental authorities
State "not established" if user segments have not been analysed

Climate researchers Modelers Weather researchers Hydrologists

40. Thematic application area for the data record

Example: Support to NWP, regional climate modelling
State "not established" if application areas have not been analysed

Comparison to NWP Climate model comparison Process studies (e.g. monsoon, MJO).

41. Documentation on user requirements

For each referenced document, provide as a minimum the following information:
1.) Authors(s)
2.) Document title
3.) Year of creation
4.) URL to document (if available)

State "not established" in case no user requirements document has been established

Not Established.

42. ATBD(s) describing how data record is generated

For each referenced document, provide as a minimum the following information:
1.) Authors(s)
2.) Document title
3.) Year of creation
4.) URL to document (if available)

State "not established" in case no ATBD has been established

Vonder Haar, T. H., J. Forsythe, J. L. Bytheway NASA Water Vapor Project - MEaSUREs Algorithm Theoretical Basis Document 2013 Version 2 https://eosweb.larc.nasa.gov/sites/default/files/project/nvap/NVAP_M_ATBD_Feb2013.pdf

43. User manual to explain how to work with data record

For each referenced document, provide as a minimum the following information:
1.) Authors(s)
2.) Document title
3.) Year of creation
4.) URL to document (if available)

State "not established" in case no user manual has been established

Vonder Haar, T. H., J. Forsythe, J. L. Bytheway NVAP-MEaSUREs (NVAP-M) Readme 2013 https://eosweb.larc.nasa.gov/sites/default/files/project/nvap/guide/NVAPM_User_Guide.pdf

44. Articles in peer-reviewed journals or conference proceedings based on data record

For each referenced document, provide as a minimum the following information:
1.) Authors(s)
2.) Document title
3.) Year of creation
4.) URL to document (if available)

State "not established" in case data record has not yet been described in the scientific literature.

Vonder Haar, T. H., J. L. Bytheway and J. M. Forsythe, 2012: "Weather and climate analyses using improved global water vapor observations." Geophys. Res. Lett., 39, L16802, doi:10.1029/2012GL052094

45. Name of the data transfer format(s)

Example: NetCDF

netcdf

46. Version of the format (date, number, etc.)

Example: 3.6.0

4.0

47. URL(s) to data record (via http, https, ftp, scp, ...)

Fictious example of an URL: https://www.beautifuldata.org/TCWV/5.0/

State "not available online" in case data record can't be accessed over the internet

https://eosweb.larc.nasa.gov/project/nvap/nvap-m_table

48. Size of data record in the format specified above, expressed in megabytes

Example: 566 (for a file size of 566 MB, see e.g. this tool to convert between file size units)

Transfer size (in MB) - 48000

49. Instructions for users to enable data access (if necessary)

Example: Data record is password protected, please contact the responsible person to obtain the access credentials

Keine Beantwortung

50. Additional information of relevance to potential users

Complete replacement of heritage NVAP data, which is now not available except via direct request.

51. Feedback to this G-VAP data record entry form

Have we missed relevant aspects concerning "your" data record?
Are some aspects covered in too much detail?
Do you have suggestions for improving this entry form?

Keine Beantwortung