

## Background

ICOADS (<http://icoads.noaa.gov/>) Release 3.0 (R3.0.0) (Freeman et al., 2017) individual observations span the years 1662-2014. Additionally, following the official end date of R3.0.0 (December 2014), "preliminary" (note: subject to change and not officially part of R3.0; release numbered as R3.0.1) near-real-time (NRT) monthly updates (available 2-5 days after the end of each data month) augment this collection and extend the dates from 2014 to the most recent month available. The NRT observations are based on blended marine Global Telecommunication System (GTS) observations from NOAA's National Centers for Environmental Prediction (NCEP) and NOAA's National Centers for Environmental Information (NCEI).

All observations available in this directory (<http://www.ncei.noaa.gov/data/marine/icoads3.0/final-untrim/>), R3.0 and NRT updates, are Final R3.0 files and have no trimming applied. The final, untrimmed data set excludes (a) landlocked reports, (b) reports with duplicate status DUPS>2, and (c) reports with the intermediate reject flag IRF=0 or IRF=2 were also eliminated. However, to allow for more detailed analysis of the processing results and possible adjustments, all those flagged reports were retained in the R3.0 Total dataset.

Background: The defined values of IRF (from R3.0-imma1) are:

0 – Retain in Intermediate data file, reject from final data file

1 – Retain in both Intermediate and final data files

2 – Reject from both Intermediate and final data files (placed in reject file)

For more information on final, untrimmed observations please read: [http://icoads.noaa.gov/e-doc/R3.0-stat\\_trim.pdf](http://icoads.noaa.gov/e-doc/R3.0-stat_trim.pdf). From the project website (<http://icoads.noaa.gov/products.html>) you can find out about filtering options (i.e. Standard and Enhanced trimming), as well as about monthly summary statistics (basic gridded) products, provided from the other ICOADS project partners.

## Data Format and Access

All observations are in the International Maritime Meteorological Archive (IMMA) format, version 1 (Smith et al., 2016). Format documentation and field descriptions can be found in the abridged version at: [http://icoads.noaa.gov/e-doc/imma/R3.0-imma1\\_short.pdf](http://icoads.noaa.gov/e-doc/imma/R3.0-imma1_short.pdf). Software to read and write the IMMA1 format is available at <http://icoads.noaa.gov/software/rwimma1>.

## Filename Descriptions

1. Release 3.0 observations (1662-2014):

IMMA1\_R3.0.0\_YYYY-MM.gz

**IMMA1** = International Maritime Meteorological Archive (IMMA) Format  
(currently version 1, i.e. IMMA1)

**R3.0.0** = Release 3.0.0 observations

**YYYY** = year of data in file

**MM** = month of data in file

**gz** = GNU zip compression

2. NRT (preliminary) extensions to R3.0 created from a blend of NCEI/NCEP GTS (2015-present):

ICOADS-NRT\_v3.0.1\_data\_YYYYMM.dat.gz

**ICOADS-NRT** = ICOADS Near-Real-Time data in the International Maritime Meteorological Archive (IMMA) Format (currently version 1, i.e. IMMA1)

**V3.0.1** = Preliminary NRT Release 3.0.1 observations

**data** = final file with quality control and duplicates removed.

**YYYYMM** = year/month of data in file

**dat** = file format extension

**gz** = GNU zip compression

## References

Freeman, E., S.D. Woodruff, S.J. Worley, S.J. Lubker, E.C. Kent, W.E. Angel, D.I. Berry, P. Brohan, R. Eastman, L. Gates, W. Gloeden, Z. Ji, J. Lawrimore, N.A. Rayner, G. Rosenhagen, and S.R. Smith, 2017: ICOADS Release 3.0: A major update to the historical marine climate record. *Int. J. Climatol.* ([CLIMAR-IV Special Issue](#)), 37, 2211-2237 ([doi:10.1002/joc.4775](#)).

Smith, S.R., E. Freeman, S.J. Lubker, S.D. Woodruff, S.J. Worley, W.E. Angel, D.I. Berry, P. Brohan, Z. Ji, and E.C. Kent, 2016. The International Maritime Meteorological Archive (IMMA) Format. <http://icoads.noaa.gov/e-doc/imma/R3.0-imma1.pdf>

## Dataset DOI Citation

Cite this dataset when used as a source:

National Centers for Environmental Information; Cooperative Institute for Research in Environmental Sciences, University of Colorado; Research Data Archive, Computational and Information Systems Laboratory, National Center for Atmospheric Research, University Corporation for Atmospheric Research; Earth System Research Laboratory, NOAA, U.S. Department of Commerce; NERC National Oceanography Centre, Natural Environment Research Council, United Kingdom; Met Office, Ministry of Defence, United Kingdom; Deutscher Wetterdienst (German Meteorological Service), Germany; University of Washington, Department of Atmospheric Science; Center for Ocean-Atmospheric Prediction Studies, Florida State University (2016): International Comprehensive Ocean-Atmosphere Data Set (ICOADS) Release 3.0 Raw Individual Reports in the International Maritime Meteorological Archive Format version 1 (IMMA1), Revision 3.0. NOAA National Centers for Environmental Information (NCEI). doi:10.7289/V5CZ3562 [access date].

## Contact Points

For information on the NCEI ICOADS collection in this directory and ICOADS or marine observation data access at NCEI, please contact:

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**Document Revision Information**

6/22/2017: First iteration.

8/0/2017: Added dataset DOI citation information.