

ICOADS Release 3.0: Data Characteristics and Future Priorities

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The latest update of the International Comprehensive Ocean-Atmosphere Data Set (ICOADS), Release 3.0 (R3.0), provides major coverage expansions on the previous version (R2.5) for 1662-2014, followed by improved monthly near-real-time (NRT) extensions, e.g. partly addressing the impacts of many masked Global Telecommunication System (GTS) ship callsigns since late 2007. This presentation will describe the data and metadata characteristics of R3.0, and provide details on new data sources and on extensive observational format updates. New or improved data sources cover various time periods, from the late 18th Century all the way into the modern period. These sources include newly digitized historical observations from collections such as the English East India Company and the German Maury collections, and updated external archives such as the Global Tropical Moored Buoy Array (GT MBA) and World Ocean Database (WOD). A major observational format update is an extension to include near-surface oceanographic data elements such as salinity, nutrients and carbon cycle parameters. These parameters, with associated depths, have been populated from the WOD and other near-surface oceanographic sources. The new inclusion of a unique identifier (UID) to each individual marine report will help to improve traceability and facilitate collaboration between ICOADS users. Future plans for ICOADS will be described in the second part of the presentation, introducing the MARCDAT-IV session on ICOADS development. As always, the longstanding MARCDAT/CLIMAR user community will continue to actively help shape the database and improve data management to meet future needs and continue to make ICOADS a valuable resource for global climate research well into the future. Finally, we will report on progress towards establishment of ICOADS as a Centre for Marine-Meteorological and Oceanographic Climate Data (CMOC), within the new WMO-IOC Marine Climate Data System (MCDS), which is anticipated to facilitate further longer-term improvements in the effective management and stewardship of marine and near-surface oceanographic data internationally.

Oral

- **Data management, recovery and reprocessing (digitisation efforts and reprocessing of previously digitised data)**