



# NOAA Persistent Identifiers

**Nancy Ritchey**

**Chief, Archive Branch, Data Stewardship Division**

**NOAA/NESDIS National Centers for Environmental Information (NCEI)**

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# Persistent Identifier Guidance and Governance

- NOAA Data and Publication Citation Procedural Directive (PD) defines basis for Persistent Identifiers (Digital Object Identifiers) for a data collections
- PD assigns responsibilities for Working Group oversight and role of data stewards (data) and librarians (publications) for creating and managing DOIs
- Working Group adjudicates questions and recommends improvements to implementation processes

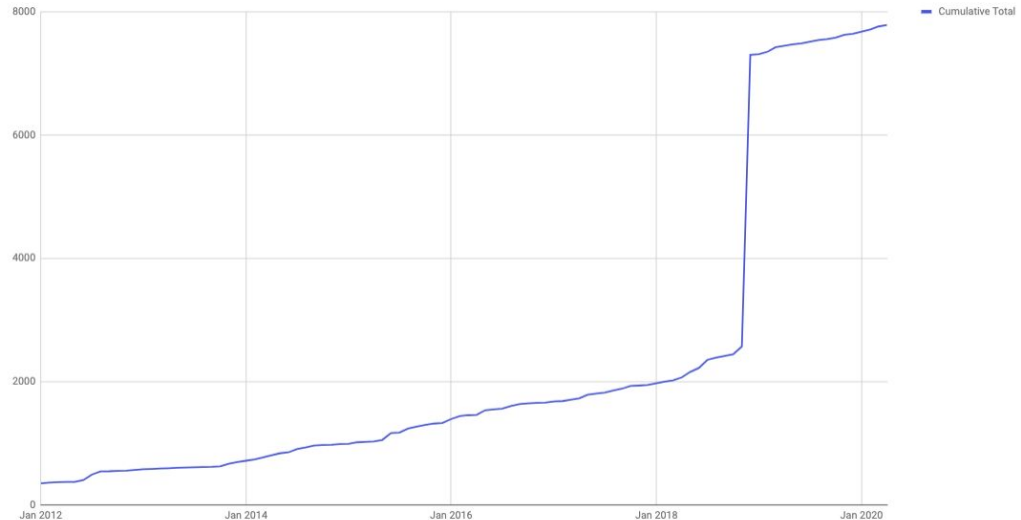


# Data PIDs By the Numbers

Track and report metrics

- ~7800 **Data** DOIs since NOAA started minting Data DOIs in 2012
- Received 1074 transferred DOIs when CDIAC closed
- Average\* of ~310 DOIs/year

Cumulative NCEI DOIs



\*Excludes ~5000 DOIs in 2018 for special project to support WDS Paleoclimate

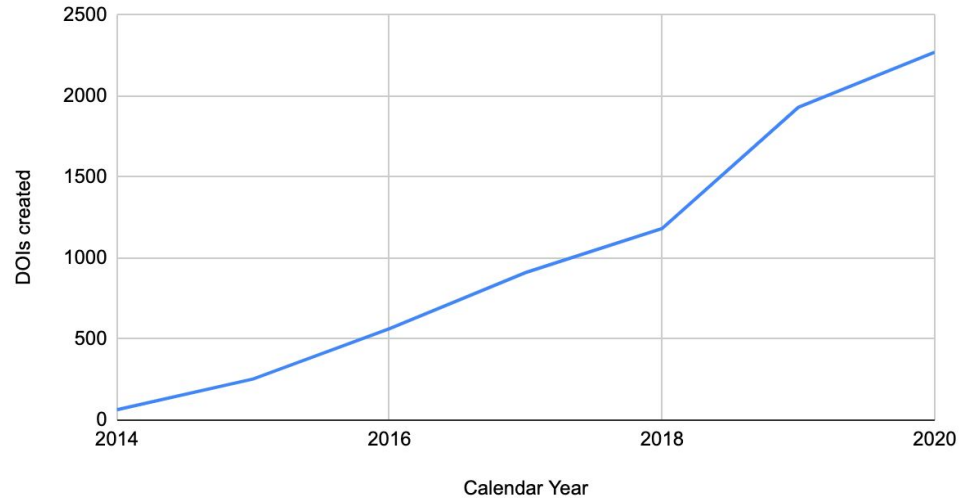


# Publication PIDs By the Numbers

Track and report metrics

- >2270 **Publication** DOIs since NOAA started minting Publication DOIs in 2014
- Average of ~324 Publication DOIs/year

Cumulative Publications DOIs





# PIDs for Documentation and Software

- NOAA Central Library responsible for publications, including NOAA Tech Memos, Cruise Reports, other NOAA publications
- NCEI responsible for data and documentation that may augment or accompany data in archival data collections
- NOAA does not have a centrally-managed software repository and does not currently create a DOI for NOAA-created software



# Landing Page Approach

- Data DOIs link directly to a uniformly-presented landing page presenting the content of ISO 19115 metadata for the data collection
- Publication DOIs link directly to the NOAA Institutional Repository landing page for the publication
- Metadata provides two-way cross-references between DATA and PUBLICATIONS when those linkages are known and documented

**DATA** NOAA NATIONAL CENTERS FOR ENVIRONMENTAL INFORMATION  
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

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Home > Data > Metadata > gov.noaa.nodc:0167875

### El Niño Rapid Response (ENRR) Field Campaign: Surface Fluxes from NOAA Ship Ronald H. Brown, 2016-02 to 2016-03 (NCEI Accession 0167875)

This dataset contains bulk surface-flux data from NOAA Ship Ronald H. Brown, calculated by the COARE Flux Algorithm from surface meteorology and ship data collected 16 February to 16 March 2016. The surface meteorology and ship data were collected while the ship sailed from Honolulu, Hawaii to the Tropical Atmosphere Ocean (TAO) buoys along 140°W and 125°W and then to San Diego, California. The averaging period of the data is 1 hour.

During January through March 2016, scientists led by the NOAA/Earth System Research Laboratory's Physical Sciences Division conducted NOAA's El Niño Rapid Response (ENRR) Field Campaign. Its goal was to document the ongoing El Niño episode in great detail, and in

[Show more...](#)

**Dataset Citation**

Cite as: Cox, Christopher J.; Hartnett, Leslie M. (2017). El Niño Rapid Response (ENRR) Field Campaign: Surface Fluxes from NOAA Ship Ronald H. Brown, 2016-02 to 2016-03 (NCEI Accession 0167875). [indicate subset used]. NOAA National Centers for Environmental Information. Dataset. <https://doi.org/10.7289/v5805ov>. p. Accessed [date].

**Dataset Identifiers**

ISO 19115-2 Metadata

**PUBLICATION**

National Oceanic and Atmospheric Administration  
United States Department of Commerce

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### Advancing Science And Services During The 2015/16 El Nino The NOAA El Nino Rapid Response Field Campaign

Record 12 of 603

Published Date: 2018

Source: Bulletin of the American Meteorological Society, 99(5), 975-1002.

Viewer Details Supporting Files Related Documents You May Also Like PDF-19.02 MB Download

**Details:**

DOI: <http://dx.doi.org/10.1175/bams-d-16-0219.1>

Personal Authors: Dole, R. M.; Spackman, J. R.; Newman, M.; Compo, G. P.; Smith, C. A.; ... [More ▼](#)

**Description:** Forecasts by mid-2015 for a strong El Niño during winter 2015/16 presented an exceptional scientific opportunity to accelerate advances in understanding and predictions of an extreme climate event and its impacts while the event was ongoing. Seizing this opportunity, the National Oceanic and Atmospheric Administration (NOAA) initiated an El Niño Rapid Response (ENRR) production the first field campaign in history.



# Recent Developments

- New Version 2.0 of the NOAA Data and Information Citation PD (draft is in review/approval process)
  - Clearer delineation between requirements and processes for NOAA data and publications
  - Documents processes for reserving a DOI for data and publications
- NCEI Data DOI Minting SOP for consistent implementation
- Published basic DOI information on the NCEI archive page
- Planned work: Integrate DOI management into enterprise metadata tools





# Lessons Learned

- Important to have a publicly-accessible policy statement (e.g., PD) to underpin the process and basic requirements
- Review and maintain the policy statement to keep up with and manage expectations
- Be prepared (via a team or Working Group) to field and resolve nuanced questions about the process and policy interpretation
- Communicate updates and changes widely and quickly







# Other Notable Points

- NOAA changed DOI vendors which affected the DOI prefixes used for NOAA data and publications and the process for managing and reporting DOI metrics
- Management and monitoring of DOI minting across NOAA due to license limits (10K/year)
- Challenges for managing metadata for data that have a pre-existing DOI from a non-NOAA source





# Questions/Challenges

- Event-based DOIs for cruises have been requested, but not adjudicated. Do other repositories mint DOIs for events?
- How should data citation information be embedded in distributed data files? Like a watermark for data.
- Users access subsets of various data. How can dynamic, custom citation information be provided to users for their ad hoc data access?
- Support of DOIs required by publishers in order to publish articles. How are you handling that?

