

IOOS By the Number  
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Working Group: Jennifer Bosch, Chris Ostrander, Cassie Stymiest, Troy Tanner, Vembu Subramanian, Josie Quintrell

Goal: To develop an initial list of metrics for communicating the accomplishments of the IOOS program at the national level. (Note: these are not for program management purposes or meant to supplant metrics collected at the regional level)

Proposal: All RAs track 2 initial Google Analytic Metrics for national level reporting to demonstrate use of the IOOS system in the fall of 2015. Proposed metrics are:

- # of sessions on RA websites
- # of visitors on RA websites

Process for RA adoption:

- Recommend that all RAs update their tracking code to the Universal Analytics version. Universal Analytics was introduced around 2013 and is more powerful than Classic Analytics, including allowing multiple tracking codes to be embedded on a single page. If all RAs and the PO adopt the Universal version, we can move towards a state where each RA can track their traffic, and a single point-of-contact (or multiple) can track all traffic across RA and PO sites, relieving the RA of the time-burden to self-report data to a central hub.

Current Status (please confirm this is correct)

<b>RA</b>	<b>Classic Analytics</b>	<b>Universal Analytics</b>	<b>Not Sure</b>
AOOS	X		
CaRA			X
CeNCOOS		X	
GCOOS	X		
GLOS	X		
MARACOOS		X	
NANOOS	X		
NERACOOS	X		
PacIOOS		X	
SCCOOS	X		
SECOORA	X		

- Choose date by which all RAs start tracking
  - Nearly all are currently using Google Analytics, yet less than half have updated to Universal.
  - Target Date: 4-6 weeks
- Ensure that all RAs have coded correctly so that we are clear about what we are tracking

- Code embedded in correct pages - all pages that fall underneath the RA domain (i.e., all pages beneath secoora.org or pacioos.org)
- Specialized data portals such as HFR, gliders, would have separate tracking code. For example, SCOOS reports only traffic to scoos.org domain, while CDIP traffic is collected using a different analytics code. The same should be true with HFR (CORDC and Rutgers) and the Glider DAC (Rutgers)
- Partner data access - RAs will have to work with partners that are serving data directly to encode the IOOS RA code number so use of these sites can be monitored as well. This will have to be done on a case-by-case basis.

Future work:

- Tracking data – tracking use of data transfer to model assimilation, researchers, teachers, etc. )
  - Are RAs tracking server level data?
  - Metrics for tracking data
  - What process are RAs using to track data (e.g., AWSTATS to monitor server-level traffic to track data downloads - often used by sophisticated users (model assimilation, researchers) and teachers (for lessons).
- IOOS by the Number - developing common definitions and documentation:
  - Definitions
    - Parameter: A physical, geological, chemical or biological variable measured from a sensor (e.g. temperature).
    - Observation: A single value representing a measured or derived parameter from sensor in space and time. (e.g., degrees C)
    - Datasets: An aggregation of observations collected from a sensor in space and/or time. (e.g., annual temperature record for Gulf of Mexico)
    - Sensor: instruments used to collect observations
    - Platform: Where sensors are deployed - e.g., fixed (mooring, buoys, shore stations), mobile (gliders, ships, etc) remote (HFR, satellites)
  - Possible metrics:
    - # of IOO RA members
    - # of observations made
    - # of platforms
    - # of glider days
    - # of radars
    - # of ATN
    - % of non-Federal data served by NDBC
    - # of square miles of coastal ocean/lakes. (for a baseline)

- # of jobs supported by IOOS - hard to standardize a count on this. Jobs supported directly by RA funding? Or as a secondary economy using IOOS data? Or calculated using EI multipliers for RA funding that is multiplied through local economies (service jobs, housing, etc.)
    - # of students engaged by IOOS – will need to be carefully defined.
- Program Management Metrics
  - Service: An endpoint to transfer the data from one of the following supported protocols:
    - OPeNDAP
    - OGC-WMS
    - TableDAP (ERDDAP)
    - OGC-WFS
    - OGC-WCS
    - OGC-CSW
    - OGC-SOS
  - Glider Days: One glider in the water for 24 hours
  - HFR Operational metric:
  - Others
- NDBC
  - Need to understand how they are tracking usage.
  - Source of information about use of IOOS data for modeling (thru GTS)
  - What information is getting to the GTS?