



## **INTEGRATED COASTAL AND OCEAN OBSERVING SYSTEM (ICOOS) ACT OF 2009 IMPLEMENTATION PLAN**

**ACTIVITY:** “promulgate program guidelines to certify and integrate non-Federal assets, including regional information coordination entities, into the System to provide regional coastal and ocean observation data that meet the needs of user groups from respective regions.”

**ICOOS ACT REFERENCE:** §12304 (c)(3)(C)

### **PLAN:**

- **Objectives/Milestones:**
  1. Create the categories and standards that will describe technical maturity
  2. Draft a set of minimum certification standards ready for socialization within NOAA, the Committee and the regions
  3. Define a process to conduct certifications
  
- **Execution Plan:**
- **Initial certification standards (P)**
  - a. Define general approach and categories to assign capability maturity levels for IOOS Data:
    - i. data quality (QA/QC protocols)
    - ii. service availability (redundancy, COOP plan, etc.)
    - iii. data timeliness (how rapidly data are available once collected)
    - iv. documentation (metadata)
    - v. interoperability (level of adoption of IOOS protocols)
    - vi. usage (knowledge of and statistics on customer usage)
    - vii. archiving (degree to which protocols are adopted and data are available)
  - b. Circulate draft CM levels to key stakeholders for comment/review (inc. regions, NOAA data providers, IWGOO/DMAC ST, etc.)
  - c. Revise CM levels base on stakeholder input.
  - d. Publish initial recommendations to IOOS/DMAC website.
- **Process to “certify” data providers**
  - a. Investigate various existing data “certification” processes (inc. “automated” processes and other community-based options).
  - b. Develop draft process for conducting/executing a certification process with IOOS data providers.
  - c. Circulate draft process for comment/review by stakeholders.
  - d. Revise draft and publish report on certification process.
  - e. Implement and test certification process with at least one IOOS data provider.
- **Process to integrate data providers into system**

- a. Recognize that IOOS has adopted a distributed service-oriented architecture (rather than collecting and storing all data in central warehouse) precisely because it allows new providers to be integrated into the overall system.
  - b. New data provider provides URL of their service to the IOOS Service Registry.
  - c. Registry software, perhaps with human assistance, verifies that service functions correctly and provides data of relevance.
  - d. Preliminary CM level assigned to new data provider. Level may be increased after assessment.
  - e. Metadata from new service harvested in order to populate Catalog of IOOS data.
  - f. Users are able to search Catalog and view holdings of new data provider (along with existing providers).
- **Dependent Activities:**
    - RAs must have adequate support to fulfill obligations prescribed in the legislation.
    - S.12304(c)(3)(I) – requires “process” to establish gaps or capital improvement needs
    - S.12304(c)(3)(M) – requires “process” to integrate new technologies
    - S.12304(c)(2)(F)- requires identifying gaps in coverage or capital improvement needs
  - **Additional Needs:**
    - a. Coordinate with READ Division on certification process proposed for RICES
    - b. Coordinate proposed approach with stakeholders, particularly Regional IOOS DMAC coordinators, current NOAA IOOS data providers, and the IWGOO (DMAC Steering Team)

**GROUP RESPONSIBLE:** NOAA/IOOS/Operations Division (and Regional & External Affairs Division?)

**DELIVERABLES:**

- a. Initial CM categories proposed [Apr 2010]
- b. Define capability maturity levels for 3-4 categories [Aug 2010]
- c. Initial approach for conducting/executing a certification process completed [Aug 2010]
- d. Certification process tested with at least one IOOS data provider [Sep 2010]

**DUE DATE:** See Deliverables above. Completion of all tasks by Sept 2010

**OUTSTANDING DECISIONS NEEDED:** None at this time