**9th Session of the JCOMM Observations Coordination Group**

**14 - 17th May 2018, Brest, France**

**Report Title: OceanSITES report to OCG-9**

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**Agenda Item Reference: 4.1.5 OceanSITES**

**Date: 19. April 2018**

**Draft: Version 1**

**1. SUMMARY**

This document reports status of the work of OceanSITES and issues/actions to be discussed/taken by OCG based on action items at OCG-8 and beyond.

**2. REPORT CONTENT**

Technical Coordinator

Newly recruited Technical Coordinator, Mr. Long Jiang got on board on 1st Nov 2017. Mr. Jiang has been working with Co-chairs, Data Management Team and experts via webex and face to face meetings, and also received training and guidance from WMO Secretariats. Mr. Jiang is now based in Geneva, Switzerland and employed by the WMO through a renewable fixed term post, with approximately 30% time allocation for OceanSITES (70% to DBCP). WMO is working to move the TC to the JCOMMOPS office in Brest, France.

Network Management

1. One primary focus of the OceanSITES network management activities since OCG-8 was on the implementation of the JCOMM OPS metadata management system for OcenSITES sites. This activity has been recognized as a key step in establishing visibility of the network as being one of the main contributors to the JCOMM system and therefore is also key for preparing the integration of observing activities across the JCOMM networks.   
   Given the complexity of the OceanSITES network of moorings as well as repeat ship surveys and using a very wide range of different instrumentations and platforms, the implementation requires multiple adaptations on the OceanSITES vocabulary as well as on the JCOMMOPS metadata base field structure.   
   Jointly by JCOMMOPS and OceanSITES it was decided that the implementation strategy will have three major phases:  
   * **(1) Preparatory phase (completed):**   
     The Preparatory phase consisted of an in-person meeting between the partners (JCOMMOPS and OceanSITES). The meeting took place in July 2017, with a 2 day visit of co-chair J. Karstensen (GEOMAR) at the JCOMMOPS premise in Brest (Note, the new TC could not attend because he was not hired at that time).  
     During this meeting the basic characteristic and meta data needs of OceanSITES were identified and the transfer into the JCOMMOPS were defined.   
     Following the meeting, JCOMMOPS prepared a first version of the web-interface for OceanSITES metadata integration. This version was populated with metadata that originated from the XLS spreadsheet that was used in the past to “manage” the OceanSITES metadata.
   * **(2) Implementation phase (ongoing)**:   
     The Implementation phase was defined to test and adapt the JCOMMOPS metadata base for receiving OceanSITES metadata information and to prepare the OceanSITES community to add meta data in an independent, self-responsible mode. Different data integration schemes are envisioned: directly via the oceansites.jcommops.org website, via OceanSITES netCDF data files (in junction with OceanSITES DMT), or via application program interface (API) in case of certain subnetworks follows own metadata standards (e.g. European network EMSO).   
     At this stage the implementation phase has started by integrating test sites, by training the OceanSITES community (e.g. Ocean Science Meeting 2018 Event). A central task, and that is currently executed by the TC, is an update of the most critical management information which is collecting PIs (manager, data manager, instrument) name and contact information for all registered sites. Based on this collection the TC will make sure that for each site and its associated platforms (“platform” is synonym for a deployment of a mooring or one ship visit for a ship based time series) an update process is established which will be used in the following “Operational phase” for routine update of information.   
     The Implementation phase will be over when the information that was before available in the XLS Materdata file is fully accessible via JCOMMOPS – including information about biogeochemical and ecosystem instrumentation and including the link to observational data. Note, we anticipate that more metadata and metadata of much higher value (e.g. instrument information) is available after this transition.
   * **(3) Operational phase (envisioned to start in 2019):** For the operational phase it is envisioned that the metadata for the sites is being updated by site operators, but will the help of the TC, in a routine and timely way. This phase will ensure the full transparency of the OceanSITES observing network in the context of JCOMM.
2. The OceanSITES DMT has been intensively working on the interoperable access to OceanSITES long time series data via ERDDAP services at NDBC tested (KEO, PAPA, RAMA, Stratus, WHOTS, NTAS). The next issue here is to further work towards a routine delivery of data product such as time series of surface fluxes from the air/sea reference sites, volume transport time series for TMA sites, or biogeochemical time series for the GlobalOceanWatch sites.
3. The DMT has executed monthly teleconference. Again the OceanSITES/JCOMMOPS interfacing was a central topic over the last year.
4. The Executive team had two telcons and met at the Ocean Science Meeting (12 Feb 2018, Portland, US)
5. OceanSITES whitepaper abstract for OceanObs19 has been submitted

Major Events:

1. OceanSITES face-to-face meeting is planned for 2-6. July 2018, Kiel, Germany.  
   see (<http://jcomm.info/OS-2018> and <http://conferences.geomar.de/event/OceanSITES>)
2. National:   
   US transport sites and surfaces mooring sites review (Oct. & Dec. 2017)
3. Joint JCOMMOPS and OceanSITES workshop at Ocean Science Meeting 2018

**3. DECISIONS, ACTIONS and RECOMMENDATIONS**

Decisions:

* Continue with the Implementation phase for the integration of OceanSITES metadata into the JCOMMOPS

Actions:

* OCG-8  
  OceanSITES to connect with JCOMMOPS (J. Karstensen to visit JCOMMOPS) to resolve data and network visibility issues ***– done!***  
  JCOMMOPS, OceanSITES, DBCP and secretariat to agree to discuss mooring/moored buoy KPI’s for the report card ***– done for first report card (countries involved in nbetwork, in process for second report card)***

Recommendations:

* Invite OCG to clarify the status and distribution of shared funding for DBCP/OceanSITES TC in particular regarding share of travel funds
* Invite OCG to inform and report about OceanSITES own funds located at WMO; CLS; and potentially other places (IOC)
* Develop (with DBCP) a time schedule for relocation of TC from WMO to the JCOMMOPS premise in Brest/France in order to work intensively on the implementation of the metadata management for both, DBCP and OceanSITES observing networks.
* The Integrations process of the OceanSITES sites into the JCOMMOPS database revealed a number of opportunities for the JCOMMOPS functionality that could be of benefit for all JCOMM managed observing networks.
* Instrumentation data base:
  + A JCOMM wide (eventually only all ocean observing networks) instrumentation data base would be very useful as it would directly serve the Network Specification Sheet request on sensor definitions.   
    The data base could benefit from linkages with other existing data bases e.g. by adding Manuals and Best Practices documentation as well as instruments and sensor specifications (e.g. https://www.esonetyellowpages.com/)
* JCOMM wide project and program data base:
  + In many countries JCOMM networks are financed fully or partly via project funding. Sometimes with very long life times. A project data base with basic information will provide the opportunity to assess the funding and thus sustainability status of individual as well as all observing networks
* Expeditions data base:
  + It has been already recognized that almost all observing networks rely on ship access - in order to deploy/recover platforms but also for calibration purposes. The Expocode was introduced as a common standard to define ships. However, a better linkage of the Expocode with auxiliary cruise data would be beneficial (e.g. cost estimate) and could be potentially achived via linkages with ship data bases (SeaDataNet, CCHDO).