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

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**Report Title: Status Report for GLOSS for JCOMM OCG-9**

**Authors: Gary T. Mitchum, Chair, GLOSS Group of Experts**

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**1. SUMMARY**

Data flow from the GLOSS network continues to be stable. An improved set of indicators of GLOSS status has been implemented and input to JCOMM OPS continues to be updated weekly. A major emphasis over the past two years has been improving the GLOSS web presence and progress has been made. A re-visioning of the GLOSS program in terms of the missions the program serves was discussed last year and was a major topic at the last GLOSS Group of Experts meeting in July of 2017. Also, a discussion of the GLOSS data centers and how we obtain, hold and share our data was a major topic, as discussed below.

**2. REPORT CONTENT**

The GLOSS web presence has justifiably been a major topic of concern over the past two years. We reported last year that a draft was in place and the web pages would go live shortly. At the time of this writing, that has not happened, but a live version is up on the development site and should be transferred to the official GLOSS site by the time of the meeting. We should also note that this is only the starting point for the GLOSS web pages. Modifying and updating the pages as we move forward with the GLOSS Implementation Plan will require a great deal of work and we need to make sure that we have the resources and commitment to make sure that we do not fall behind again.

At the time of the last JCOMM OCG meeting we were looking forward to the upcoming GLOSS Group of Experts (GLOSS GE) meeting that was held in New York the weekend preceding the WCRP Sea Level meeting in July of 2017. We were fortunate that David Legler and Katy Hill were able to attend our meeting. They mostly listened and learned about GLOSS, but the GE attendees were also able to learn more about the JCOMM OCG group. The outcomes from this meeting are the core of this report.

At the last JCOMM meeting we discussed my desire to revision GLOSS, and to move away from talking about data centers and data streams. Historically, the GLOSS GE was more of an inward-looking group and our plans were mainly to make sure that global sea level data reached the PSMSL eventually. But the needs of the world became larger and GLOSS took on a variety of missions and has been serving these missions successfully. Unfortunately we continued to mainly talk to one another and phrase our implementation plan in terms of data centers and data streams rather than communicating to the larger world the missions that we serve and how our data centers and data streams are set up to do that.

At the last GLOSS GE meeting this matter was discussed at length and the group agreed that a vision of GLOSS that was focused on the missions that we serve rather than the data we shepherd was appropriate. The most important outcome was that we should develop an update of the GLOSS Implementation Plan that changes the emphasis from data to missions and users. This does not, mind you, change what we fundamentally do, but changes how we present what we do to the world, and how we measure our success. The net result is that the Chair of the GLOSS GE has been charged with drafting an update of the GLOSS Implementation Plan. Further, a summary of this plan will be incorporated into a paper for the OceanObs19 special issue in Frontiers in Marine Science.

Another issue that was discussed extensively at the 2017 GLOSS GE meeting was how our users access the GLOSS sea level data. Because of our focus on data centers, and because in the past we were mainly talking to one another, we had reached a point where users could find multiple versions of the same GLOSS time series on different sites and in different formats and with differing levels of quality control. This was considered to be unacceptable. The GE charged the data center directors, with Philip Thompson at the Hawaii GLOSS center in the lead, to develop a data system that made the GLOSS data centers invisible to the users, to provide a uniform interface to the users, and to make the new GLOSS web pages the interface.

Another issue, and an admittedly difficult one, concerns the GLOSS governance. GLOSS was set up 30 years ago. The governing body was the Group of Experts, which was not well-defined, but largely amounted to the IOC Member State representatives that were able to attend the biennial GLOSS GE meetings. We do our best to have these meetings be as inclusive as possible, but it is not possible to have all member states represented at all of our meetings. And an unforeseen problem (30 years ago) is that now we cannot wait for biennial meetings to take decisions. The group discussed this issue at length and agreed that this situation was no longer viable, and the Chair of the GE was authorized to pursue the following change. There already exists a Chair’s Advisory Group. This group would be authorized to approve or disapprove actions proposed by the Chair. For matters that require the approval of the entire GE, we will define the GE as the IOC member state representatives to GLOSS, and we will put these questions to them via email rather than waiting for the biennial meetings. The Chair was authorized to write these proposed governance changes into the revised GLOSS Implementation Plan.

Due to problems with the delivery of high frequency data in some part of the world, Philip Woodworth and John Hunter created a product they termed GESLA (Global Extreme Sea Level Analysis) for use in studying sea level extremes such as storm surges. This product primarily GLOSS data supplemented by additional data obtained through special agreements with individual countries. Following discussions between Phil Woodworth and the Chair of the GLOSS GE, it was proposed that GLOSS adopt this a one of our products. This idea was endorsed at the GE meeting last July and Philip Thompson at the University of Hawaii GLOSS center was charged to lead this project. At that meeting, we also had discussions with Ivan Haigh, who has taken over the lead on GESLA from Woodworth and Hunter, and he was enthusiastic about this arrangement.

We conclude this report with updates on several items that were not discussed explicitly at the GE meeting last summer. First, we continue to provide weekly updates to the GLOSS status maps that are available to JCOMM OPS to download as they need. Second, we have adapted these status files to serve the needs of the Report Card, but we would point out that the needs for the Report Card have been something of a moving target. We look forward to advice on what is required and will provide whatever information is needed. Finally, at the last JCOMM OCG meeting the GLOSS Chair agreed to be the contact point for the Best Practices documentation. We admit that progress in this area was somewhat slow with the preparation and follow up for the biennial GE meeting, but we will make it a priority in the coming year.

**3. DECISIONS/ACTIONS/RECOMMENDATIONS:**

None for this draft.