INTergovernmental Oceanographic Commission  
(of UNESCO)  
Ninth Session of the Intergovernmental Coordination Group for the Indian Ocean Tsunami Warning and Mitigation System (ICG/IOTWS-IX)  
Jakarta, Indonesia  
27-30 November 2012  
PROVISIONAL ANNOTATED AGENDA

1. WELCOME AND OPENING OF NINTH SESSION
   - Dr Wendy Watson-Wright, Assistant Director General of UNESCO and Executive Secretary of the Intergovernmental Oceanographic Commission, read on her behalf by Mr Tony Elliott, Head of IOC-UNESCO ICG/IOTWS Secretariat
   - Mr Rick Bailey, Head, Tsunami Warning & Ocean Services, Australian Bureau of Meteorology, Chair of ICG/IOTWS
   - Mr Hubert Gijzen, Director of UNESCO Regional Science Bureau for Asia and the Pacific
   - Dr. Ir. Sri Woro B. Harijono, Director General of BMKG
   - Mr Gusti Muhammad Hatta, Minister of Research and Technology, Republic of Indonesia

2. ORGANIZATION OF THE SESSION
   2.1 ADOPTION OF AGENDA
   Working Documents:  
   ICG/IOTWS-IX/1 Prov.  
   ICG/IOTWS-IX/2 Prov.  
   Provisional Agenda  
   Provisional Annotated Agenda  

   The ICG/IOTWS Chair, Mr Rick Bailey, will introduce the provisional agenda and provisional annotated agenda. He will inform the meeting that the agenda was prepared by the Secretariat and the Officers taking into account the recommendations of ICG/IOTWS-VIII as well as the IOC Rules of Procedures. He will then open the floor for comments from delegates on the agenda.

   The agenda will then be approved as presented or with amendments as decided by the delegates.

   2.2 DESIGNATION OF THE RAPPORTEUR
   The group will be requested to consider the need to nominate a Rapporteur for the session. The role of the Rapporteur is to review and certify the report prepared by the Secretariat. The Chair will inform the meeting that as per established practices for subsidiary bodies there will not be a line-by-line approval of the report but only for Decisions and Recommendations. As the meeting will be conducted in English, the Rapporteur should have a good command of the language.
2.3 CONDUCT OF THE SESSION, TIMETABLE AND DOCUMENTATION

Working Documents:  
ICG/IOTWS-IX/1 Prov. Add. Provisional Timetable  
ICG/IOTWS-IX/4 Prov. Provisional List of Documents  
ICG/IOTWS-IX/5 Prov. Provisional List of Participants

Information Document:  "Tsunami Early Warning and Community Preparedness" – Insights and Compilation of Good Practices

The Head of the ICG/IOTWS Secretariat, Mr Tony Elliott, will introduce the timetable and documentation for the session. He will inform the Session that in order to facilitate the proceedings of the meeting the timetable has been prepared by the Secretariat in coordination with the Officers and the Steering Group. The list of documents is available as ICG/IOTWS-IX/4 Prov. The Provisional Timetable is available as ICG/IOTWS-IX/1 Prov.Add. All the documents have been or will be made available through the ICG/IOTWS-IX meeting website and printed copies are also available on request.

The Chair will invite the delegates to adopt the timetable as presented or to suggest amendments. In order to organise the meeting as well as to facilitate and promote the exchange of points of views and advance agreements that might prove time consuming in plenary, delegates will be requested by the Chair to establish the following sessional committees [this list is not exclusive and can be modified in plenary]:

- **Recommendations Committee**: to certify that draft recommendations submitted by Member States are consistent in language and fulfil requirements established in the IOC Manual (Document IOC/INF 785) for presentation under Agenda Item 14.

- **Programme and Budget Committee**: to produce an estimate of the amount of resources Member States are investing in tsunami warning systems and to estimate needs for 2013-2014, both from UNESCO/IOC regular budget and from other sources, and report back to plenary under Agenda Item 11.

The Chair will ask for nominations for the sessional committees and their respective chairs.

3. REPORT ON INTERSESSIONAL ACTIVITIES

3.1 CHAIR’S REPORT

Working Documents:  
ICG/IOTWS-IX/6 ICG Chair’s Report  
ICG/IOTWS-IX/7 Steering Group Report  
ICG/IOTWS-IX/8 Steering Group Report

The Chair of the ICG/IOTWS, Mr Rick Bailey, will report on the activities of the ICG during the intersessional period. He will also report on the Steering Group meetings held in Jakarta on 2 December 2011 and in Perth, Australia on 9-10 October 2012.

The Steering Group has made the following recommendations to the ICG:
1. NTWCs of Member States to ensure status of national tsunamis warnings is immediately reported back to the RTSPs via the agreed web reporting protocols during tsunami events.

2. Member States to contribute additional resources to a specific central ICG/IOTWS fund to support running of an Annual NTWC User Workshops

3. Task Team to be established under the Steering Group to organize and implement IOWave exercises, with terms of reference to be defined

4. The evaluation forms for future IOWave exercises to be reviewed and simplified.

The Chair will invite comments from the delegates.

3.2 IOC EXECUTIVE SECRETARY’S REPORT


Mr Tony Elliott, Head of ICG/IOTWS Secretariat, will present a report from the IOC Secretariat, focusing mainly on the activities of the ICG/IOTWS Secretariat since the last session of the ICG. After the report, the Chair will invite comments from the delegates.

3.3 REVIEW OF ICG/IOTWS DECISIONS, RECOMMENDATIONS AND ACTIONS


Mr Tony Elliott will report on the implementation of ICG/IOTWS decisions, recommendations and actions. He will provide an update on the implementation of actions arising from ICG/IOTWS-VIII. The Chair will invite comments from the delegates.

3.4 REPORT ON THE 5TH MEETING OF THE TOWS WORKING GROUP

Information Documents: IOC/TOWS-WG-V/3 Report of the 5th Meeting of the Working Group on Tsunamis and Other Hazards Related to Sea-Level Warning and Mitigation Systems (TOWS-WG)

IOC/BRO/2012/1 Final Summary Statement of UNESCO-UNU Symposium on the Great East Japan Tsunami and Tsunami Warning Systems: Policy Perspectives

Mr Rick Bailey, Chair of the ICG/IOTWS, will report on the progress made by the Tsunami and Other Hazards Related to Sea level Warning and Mitigation Systems (TOWS) Working Group. In particular, he will inform the Session of the outcomes of the 5th meeting of the TOWS WG, held in Tokyo, 15 February 2012.

The Chair will invite comments from the delegates.
3.5 NATIONAL PROGRESS REPORTS
The following Member States have submitted national reports to the Secretariat (available on the ICG/IOTWS-IX website): Australia, Bangladesh, India, Indonesia, Kenya, Mauritius, Mozambique, Oman, Pakistan, Singapore, South Africa, Sri Lanka, Tanzania and Thailand.

Delegations may make short presentations on the actions and status of their national tsunami and other coastal hazards warning systems. Time for these presentations may be limited by the Chair in order to keep the meeting within schedule. Short questions and answers may be allowed by the Chair after each presentation.

3.6 REPORTS FROM UN AGENCIES
Mr Rajesh Sharma, Regional Information Systems Specialist, United Nations Development Programme (UNDP) Regional Centre Bangkok, will report on recent regional capacity building activities initiated by the UNDP, including collaborative activities with IOC.

Mr Nokeo Ratanavong, Economic Affairs Officer, UN Economic and Social Commission for Asia and the Pacific (UNESCAP), will provide a summary of the progress of the UNESCAP regional multi donor voluntary trust fund, including collaborative activities with IOC.

The Chair will invite short questions and comments from the delegates after each report.

3.7 REPORT FROM OTHER ORGANISATIONS
Mr Harald Spahn, Gesellschaft fuer Internationale Zusammenarbeit (GIZ), will provide a report on the status of the Project for Training, Education and Consulting for Tsunami Early Warning System (PROTECTS).

The Chair will invite questions and comments from the delegates after the report.

4. WORKING GROUP PROGRESS REPORTS
4.1 WORKING GROUP 1 PROGRESS REPORT: TSUNAMI RISK ASSESSMENT AND REDUCTION
Working Documents: ICG/IOTWS-IX/11 WG1 Report
The Chair of Working Group 1, Prof. Sam Hettiarachchi, will present an update on the group’s activities in the intersessional period.

The Chair will request the delegates to comment on the report from Working Group 1.

4.2 WORKING GROUP 2 PROGRESS REPORT: TSUNAMI DETECTION, WARNING AND DISSEMINATION
Working Documents: ICG/IOTWS-IX/12 WG2 Report
The Chair of Working Group 2, Dr Satheesh Shenoi, will present an update on the group’s intersessional activities. He will refer to the WG2 report, which focuses on: the IOWave11 exercise; the intersessional meetings of the RTT and WG2 in Jakarta, December 2011; the IOTWS Communications Tests conducted in December 2011 and June 2012; and monitoring and evaluation of RTSP performance since October 2011. This information, together with the detailed report of the RTSP Task Team (Agenda Item 7.6, working document ICG/IOTWS-IX/19) and the IOWave11 Exercise Report (Agenda Item 5, working document ICG/IOTWS-IX/14) will allow the ICG to confirm its confidence that the RTSP service of the IOTWS should become fully operational and that the IOTWS can operate independently of the IAS.

Working Group 2 has made the following recommendations to the ICG:
1. Performance Indicators and target values for Regional Tsunami Service Providers (RTSPs) should be as follows:
   - Elapsed time from EQ to initial EQ information issuance….10 min
   - Probability of detection of IO earthquakes with Mw≥6.5….100%
   - Accuracy of EQ hypocenter location…30 kms *
   - Accuracy of EQ hypocenter depth….25km *
   - Accuracy of initial earthquake magnitude….0.3 *
   - Elapsed time from EQ to issuance of first bulletin containing tsunami threat info… 20 min
   - Accuracy of the tsunami forecast amplitude/height… factor of 2.
   - Probability of detection of tsunami above threat threshold…100% #
   - Accuracy of time arrival of tsunami (0.02m amplitude)…..within 5% of travel time#
   - Accuracy of time of arrival of 1st significant wave (0.1m)…..within 5% of travel time #
   - Accuracy of threat threshold exceedance…..within 5% #
   - Percent of IO countries issued a timely product as defined above….100%
   - Elapsed time from any product issuance to potential receipt by TWFPs… 5 mins. ##
   - Percent of time RTSP is operating and able to issue products ….99.5%
   - Percent of regular Comms tests participated in .....100%

   * WG2 to further review these target figures at a later stage after analysis of past events
   # WG2 to further review these target figures after a detailed study to confirm achievable values
   ## noting that some communications issues are outside the control of the RTSPs

2. To be considered a Regional Tsunami Service Provider (RTSP) of the IOTWS a tsunami warning centre must:
   - Adopt the common Coastal Forecast Zones (CFZs), harmonized web page layout, and bulletin formats and content as established by WG2.
   - Make a presentation to WG2 demonstrating the attainment of capability requirements as agreed by ICG
   - Begin exchange bulletins with other RTSPs
   - Participate in Comms Tests/ IOWave Exercises
   - Have performance reviewed by WG2 and presented to ICG
   - Begin providing RTSP threat information to NTWCs upon agreement of the ICG

3. The ICG to note the encouraging performance of the current RTSPs (Australia, India, Indonesia) in the information provided by Working Group 2, the RTSP Task Team, and the Exercise IOWave11 Task Team in making a decision as to whether the RTSP system is ready to become fully operational

The Chair will request the delegates to comment on the report from Working Group 2.
4.3 WORKING GROUP 3 PROGRESS REPORT: TSUNAMI AWARENESS AND RESPONSE

Working Documents: ICG/IOTWS-IX/13  WG3 Report

The Chair of Working Group 3, Ms Irina Rafliana, will report on the activities of Working Group 3 in the intersessional period.

The Chair will request the delegates to comment on the update from Working Group 3.

5. REPORT FROM THE INDIAN OCEAN WAVE 11 (IOWAVE11) TASK TEAM

Working Documents: ICG/IOTWS-IX/14  Report of the IOWave11 Exercise (Draft)

The Chair of the IOWave11 Task Team, Dr Srinivasa Kumar, will report on the planning, conduct and outcomes of the IOWave11 exercise, which took place on 12 October 2011. He will present the results of the exercise based on the feedback forms received from Regional Tsunami Advisory Service Providers (RTSPs), National Tsunami Warning Centres (NTWCs) and National Disaster Management Organisations (NDMOS) that participated in the exercise. He will explain that the report of the exercise (working document ICG/IOTWS-IX/14) is still in draft and will invite the Member States to review and provide their comments to the Secretariat by 31 December 2012.

The Chair will invite comments from the delegates on the conduct of the IOWave11 exercise and will note that the Steering Group has recommended the formation of a Task Team to conduct future IOWave exercises.

6. REPORT ON 11 APRIL 2012 WEST OF NORTH SUMATRA EARTHQUAKE AND TSUNAMI EVENT

A magnitude 8.6 earthquake to the west of north Sumatra, Indonesia on 11th April 2012 resulted in the first ocean-wide tsunami advisory since the Indian Ocean RTSPs became operational in October 2011. A tsunami was generated and many countries in the region decided to evacuate coastal regions.

Mr Tony Elliott, Head of ICG/IOTWS Secretariat, will provide a summary of the results and feedback from a post-event assessment survey conducted by the Secretariat.

Dr Prih Harjadi, Deputy Director General for Geophysics, BMKG and Vice Chair of ICG/IOTWS, will give a presentation on the event from Indonesia’s national perspective based on a National Joint Rapid Assessment of the event was carried out by Indonesian agencies. He will show a timeline of events in Indonesia and report on some of the problems experienced and lessons learnt from the event.

The Chair will invite comments from the delegates and will facilitate discussion on the important lessons learnt from this event.

7. REGIONAL TSUNAMI SERVICE PROVIDER (RTSP) STATUS REPORTS

Working Documents: ICG/IOTWS-IX/15  RTSP Australia Report
Working Documents: ICG/IOTWS-IX/16  RTSP India Report
Working Documents: ICG/IOTWS-IX/17  RTSP Indonesia Report
Working Documents: ICG/IOTWS-IX/18  RTSP RIMES Report
7.1 RTSP AUSTRALIA
7.2 RTSP INDIA
7.3 RTSP INDONESIA
7.4 REGIONAL INTEGRATED MULTI HAZARD EARLY WARNING SYSTEM (RIMES)

Representatives from the RTSPs of Australia, India, Indonesia and RIMES will each report on their operational status, development and progress since the 8th Session of the ICG/IOTWS, directed towards their capability to act as RTSPs for the IOTWS. They will also report on their performance since 12 October 2011 against the Performance Indicators established by the ICG/IOTWS.

The Chair will invite and encourage the delegates to scrutinize the RTSP reports and to seek clarification and ask questions about all aspects of the RTSP’s operational capacity.

7.5 REPORT FROM THE INTERIM ADVISORY SERVICE (IAS)

Mr Takeshi Koizumi, Senior Coordinator for International Earthquake and Tsunami Information for the Japan Meteorological Agency (JMA), will make a summary report on the JMA Tsunami Warning Centre’s recent developments, including its operations and analysis of recent significant tsunami events.

The Chair will invite comments and questions from the delegates after the report.

7.6 RTSP TASK TEAM SUMMARY REPORT ON RTSP PERFORMANCE

Working Documents: ICG/IOTWS-IX/19 RTSP Task Team Report on RTSP Performance

The Chair of the RTSP Task Team, Dr Srinivasa Kumar, will present the Task Team’s report on RTSP performance in the period 12 October 2011 to 28 October 2012 against Performance Indicators established by the ICG. This report forms the basis for the ICG deciding whether the RTSP service is ready to become fully operational and should be considered together with the reports of the IOWave11 Exercise Task Team (Agenda Item 5, working document ICG/IOTWS-IX/14) and ICG/IOTWS WG2 (Agenda Item 4.2, working document ICG/IOTWS-IX/12).

The Chair will invite comments from the delegates and encourage discussion of the RTSP Task Team report.

8. POLICY MATTERS

8.1 TRANSITION FROM INTERIM ADVISORY SERVICE TO RTSP SERVICE

Working Documents: ICG/IOTWS-IX/20 Draft Recommendation on Completing the Transition from the IAS to the RTSP Advisory Service

This agenda item will be introduced by the Chair of the ICG/IOTWS, Mr Rick Bailey. He will refer to the reports of Working Group 2, the IOWave11 Task Team and the RTSP Task Team. He will request the delegates to consider the documentation before them, and in particular the documented evidence of RTSP performance against the Performance Indicators established by the ICG. He will recall the process leading to the decision before the ICG, which started at the 4th Session of the ICG held in Mombassa in February 2007 with an agreement to develop an RTWP Implementation Plan, to the agreement of the transition timetable at the 8th Session of the ICG in Melbourne in May 2011.
Recommendation ICG/IOTWS-IX.*

Submitted by the Steering Group
The Intergovernmental Coordination Group for the Indian Ocean Tsunami Warning
and Mitigation System (ICG/IOTWS),

Recalling the following Recommendations adopted by the ICG/IOTWS:
(i) Recommendation ICG/IOTWS-IV.1 on the development of an implementation plan for an interoperable system of Regional Tsunami Watch Providers (RTWPs), including a transition from the interim service providers.
(ii) Recommendation ICG/IOTWS-V.5 on the adoption of the RTWP Implementation Plan and establishment of a RTWP Coordination Group (RCG) to advise on the operation of the System of Systems and the transition phases
(iii) Recommendation ICG/IOTWS-VI.1 reconstituting the RTWP Coordination Group as the RTWP Task Team
(iv) Recommendation ICG/IOTWS-VII.1 amending the workplan for RTWP implementation
(v) Recommendation ICG/IOTWS-VIII.1 renaming the Regional Tsunami Watch Providers (RTWP) to Regional Tsunami Service Providers (RTSPs) and proposing the transition timetable to commence RTSP Service from 12 October 2011

Having considered:
(i) The report of the RTSP Task Team on RTSP Performance in the period 12 October 2011 – 28 October 2012;
(ii) The report of the Exercise IOWave11 Task Team;

Acknowledging with appreciation the Interim Advisory Service (IAS) provided by the Japan Meteorological Agency (JMA) and the Pacific Tsunami Warning Center (PTWC) since April 2005.

Noting with appreciation the willingness and preparedness of Australia, India and Indonesia to provide RTSP Service Level 1 (SL1) and Service Level 2 (SL2) services for the Indian Ocean region to the National Tsunami Warning Centres (NTWCs) of the IOTWS

Noting that the RTSPs of Australia, India and Indonesia have performed in accordance with the service standards required of IOTWS Regional Tsunami Service Providers in the period 12 October 2011 – 28 October 2012.

Requests the RTSPs of Australia, India and Indonesia to assume full operational provision of RTSP Service Level 1 (SL1) and Service Level 2 (SL2) services for the Indian Ocean region from 1st March 2013.

Expresses its deep appreciation to the Governments of Japan and the United States of America for the provision of the Interim Advisory Service by the JMA and PTWC since April 2005.

Requests the PTWC and JMA to cease the Interim Advisory Service for the Indian Ocean region from 1st March 2013.

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Financial implications: None
The Chair will open the floor for discussion, comments and questions from the delegates and will ask the ICG to consider the recommendation submitted by the Steering Group (above), and to decide if the RTSP service is ready to become fully operational; and whether to request the IAS to cease its service and to consider the transition process from IAS to RTSP service in the IOTWS as complete.

### 8.2 DEVELOPMENT OF THE INDIAN OCEAN TSUNAMI INFORMATION CENTRE

**Working Documents:** ICG/IOTWS-IX/21 Report on IOTIC Development Plan

Mr Ardito Kodijat, Head of Disaster Risk Reduction and Tsunami Information Unit at UNESCO Jakarta, will introduce this agenda item. He will report on activities at the Unit since the last session of the ICG and will provide an update on plans to develop the Jakarta Tsunami Information Centre (JTIC) into an Indian Ocean Tsunami Information Centre (IOTIC). He will describe the proposed workplan for the IOTIC, which will focus on three main roles: information and resources; capacity building; and tsunami study programmes.

The Chair will open the floor for discussion. He will ask the ICG to consider and comment on the proposed IOTIC workplan and address the issue of mobilizing resources to fund the activities and sustain the IOTIC.

### 8.3 IOTWS OUTREACH, CAPACITY BUILDING AND MEDIA INTERACTION

**Working Documents:** ICG/IOTWS-IX/22 Outreach and Communication Plan

Mr Rick Bailey, Chair of the ICG/IOTWS, will introduce this agenda item. He will report on the progress made towards the development of a plan for promoting Outreach, Capacity Building and Media Interaction, coordinated by the Steering Group.

The Chair will open the floor for discussion, comments and suggestions from the delegates.

### 9. IOTWS DOCUMENTATION

#### 9.1 IOTWS IMPLEMENTATION PLAN

**Working Documents:** ICG/IOTWS-IX/23 Implementation Plan Structure

This agenda item will be introduced by the Chair. He will recall the decision made by the ICG at its last session (ICG/IOTWS-VIII.1) and report on the discussion held by the Steering Group at its meeting in Perth, October 2012. The Steering Group concluded that the Implementation Plan should be updated as soon as possible after each ICG to reflect the decisions and outcomes of the session and should be reviewed at the following ICG session.

The Chair will present the outline structure of the Implementation Plan and will open the floor for discussion, comments and questions from the delegates.

#### 9.2 IOTWS MEDIUM TERM STRATEGY

**Information Document:** ICG/IOTWS-VIII/18 IOTWS Medium Term Strategy

The Chair will introduce this agenda item. He will refer to the Medium Term Strategy for the IOTWS, presented at the 8th Session of the ICG. He will explain that the purpose of the Medium Term Strategy is to describe the basic directions towards continuously improving the IOTWS to meet stakeholder requirements during the period 2011-2015. It focuses on describing general,
common but essential, strategic objectives to ensure an effective and efficient, tsunami warning and mitigation system that is interoperable wherever possible with other regional tsunami warning systems. The Chair will note that the Medium Term Strategy is only one year old and will not need to be considered for review until the next session of the ICG.

The Chair will open the floor for discussion and invite comments and questions from the delegates.

9.3 IOTWS USER GUIDE


This agenda item will be introduced by Mr Chris Ryan, Vice Chair of Working Group 2 on Tsunami Detection, Warning and Dissemination. He will explain that the User Guide is a priority document for the IOTWS and will present the first draft of the guide to the delegates.

The Chair will open the floor for discussion, comments and questions from the delegates.

10. REPORTS FROM SESSIONAL COMMITTEE MEETINGS

This agenda item is reserved for reports from any sessional committee meetings established under Agenda Item 2.3 that have not reported back to the ICG under other agenda items.

11. PROGRAMME AND BUDGET FOR 2013-2014


This agenda item will be introduced by Mr Tony Elliott, Head of ICG/IOTWS Secretariat. He will inform the delegates that funding for ICG/IOTWS activities comprises Regular Programme and Extra-Budgetary funds. He will explain that, especially in the context of the present financial difficulties at IOC UNESCO, resources for ICG/IOTWS activities should be mobilized by the IOTWS Member States or from other donors. Mr Elliott will present the programme and budget for the IOTWS workplan 2013-2014 and will inform the delegates of funding and in-kind support already identified and activities that remain open for funding and in-kind support.

The ICG will be presented with the conclusions and recommendations of the sessional committee established to review the Programme and Budget for 2013-2014.

The Chair will invite the ICG to consider the important issue of funding for the long term sustainability of the IOTWS and Member States will be invited to consider making contributions to the IOC Special Account set up for this purpose.

12. OTHER BUSINESS

The Chair will ask the delegates to raise any issues not already covered during the meeting.

13. NEXT MEETING

13.1 CONFIRMATION OF DATE AND VENUE FOR ICG/IOTWS-X

Member States of the ICG will be requested to offer to host the 10th Session of ICG/IOTWS and consider the appropriate place and time.

13.2 TARGET DATE AND VENUE FOR ICG/IOTWS-XI

The Chair will invite expressions of interest to host the 11th Session of the ICG/IOTWS.
14. ADOPTION OF DECISIONS AND RECOMMENDATIONS

The delegates will be presented with the Draft Recommendations submitted to the sessional Recommendation Committee established to prepare the recommendations for approval by the ICG.

The Chair will request the delegates to adopt the recommendations of the Ninth Session of the ICG/IOTWS.

15. CLOSE OF MEETING