

# ICG/IOTWS Working Group 5 (WG5) A System for Interoperable Advisory and Warning Centres

REPORT OF SESSIONAL MEETING ICG-II (DECEMBER 2005)

**Chair: Mr Geoff Crane, Australia**

## 1. Objectives

- To progress the establishment of a coordinated regional warning system for the entire Indian Ocean basin, through the establishment of a network of National interoperable Warning Centres.
- Advise on the modalities of operation, methods and standards for development and issuance of warnings, and requirements in terms of coordination and operating within a multi-hazard approach.
- In consultation with the IOC Secretariat, examine the IOC/WMO Assessment process results still underway, and develop guidelines for the distribution of tsunami warnings by National Tsunami Warning Centres (NTWCs) to emergency centres in their country, the media and the public. These Guidelines will be included in the IOTWS master plan being developed by the IOC tsunami technical unit.
- Provide further detailed elaboration of the roles of RTWPs (including responsibility for advisories) and NTWCs.

The WG-5 held an intersessional meeting to consider these issues in Singapore on 24 November 2005. Countries and organisations present at the meeting included Australia, Germany, India, Kenya, Mauritius, Singapore, IOC, ISDR, JMA, PTWC and WMO.

The inaugural Chair of WG-5, Dr Ray Canterford (Australia), withdrew from the role after ICG I. By consensus of the members, Mr Geoff Crane (Australia) was designated as his replacement. Mr Crane chaired the intersessional meeting.

The meeting in Singapore made a series of recommendations for consideration at ICG II.

## 2. Discussion of Issues

- The terminology *Regional Tsunami Advisory Centre* was considered too dominant. Rather than giving advice it was determined that a regional office would provide details of an event in a Watch. Also, rather than call the regional office a centre, with overly controlling connotations, it was determined that countries with full tsunami detection and analysis capabilities would be designated as providers. Such offices would thus become *Regional Tsunami Watch Providers* (RTWP).
- The recommendations from the intersessional meeting that described possible numbers of RTWPs were discarded and replaced by a process of NTWCs receiving Watches from providers under bilateral agreements. Whilst the benefits of dependent countries receiving just two watches to avoid confusion and provide redundancy were discussed, it was considered appropriate to leave it open to

individual nations to enter into bilateral arrangements with as many providers as they wished.

- The draft paper “*Modalities of Operation - a System of Interoperable Operational Centres*” was determined to be inconsistent with this approach and discarded.
- Whilst acknowledging the expressed desires of both JMA and PTWC to withdraw from the interim arrangement for the provision of Tsunami Watches to the Indian Ocean region, it was noted that the necessary capacity within enough countries in the region to become IOC designated RTWPs would take up to three years and it was too early to nominate a specific date for the withdrawal to occur.
- The need for capacity building to cover the capabilities of recipient countries to formulate and disseminate a tsunami warning from information provided in a Tsunami Watch was discussed. It was noted that in many countries the necessary infrastructure is weak. To successfully implement a system of systems throughout the Indian Ocean region it is essential to ensure in-country capacity to deliver warnings right through to threatened communities.
- Public education and awareness activities have been undertaken for decades in countries in the Pacific basin and that much well developed training material is available. In particular, Japan has material based on long experience with tsunami which it is already sharing with some countries in the Indian Ocean basin. Members recommended that capacity building activities in Indian Ocean countries take advantage of the availability of well tested material that is already developed.
- It was considered essential for membership of WG-5 to include all countries expressing the intention of developing the capability of becoming Regional Tsunami Watch Providers, together with a representative number of countries from around the Indian Ocean that will depend on information from them.
- Membership of WG-5 was augmented by the addition of Indonesia and France.
- The Chair of WG-5 will liaise with members over the next few weeks to determine a work program for the period up to ICG III.
- There should be an accreditation process whereby the IOC designates a potential RTWP as being capable of performing the role. Designation would involve a specified range of capabilities (shown immediately below) and a demonstration of performance.
- The essential capabilities of a RTWP should include:
  1. operations as a multi hazard/multi purpose centre that operates on a 24/7 basis.
  2. contingency plans, secure infrastructure, and uninterruptible power to ensure continuous operation.
  3. capacity to back up another RTWP and continue the other provider’s full capabilities.

4. the capacity to collect all available data in real time (seismic and oceanic), analyse and interpret the information, and the ability to undertake numerical modelling.
5. a communications infrastructure capable of effectively disseminating all information to all recipients.

### 3. Agreed Actions and Deadlines

Action	Person Responsible	Deadline
<p>Two-tiered interoperable system of RTWPs and NTWCs agreed upon.</p> <ul style="list-style-type: none"> <li>• Nations to be responsible for issuing warnings within their own territories</li> <li>• Related relevant information will be freely available</li> <li>• Some nations will derive their own warnings from primary seismic and sea-level observations and seismic and ocean models</li> <li>• Other nations will receive watches upon bilateral arrangements from RTWPs that should assist them in preparing and issuing their own national warnings</li> </ul>	Each national Focal Point or representative	On or before, say, 31/12/08
<p>The RTWPs serving NTWCs will issue the following messages:</p> <ul style="list-style-type: none"> <li>• An <b>Earthquake Alert</b> message for potentially tsunamigenic under-sea earthquakes as soon as possible after the event's detection.</li> </ul> <p>This will be followed by either:</p> <ul style="list-style-type: none"> <li>• A <b>Tsunami Detection Alert</b> message within 15 minutes of detection of a tsunami, including information on tsunami height, extent and arrival times at designated locations, which may be repeated or updated as new data becomes available.); or</li> <li>• A <b>Nil Tsunami Advisory</b> providing confirmation that although an earthquake has occurred, a tsunami has not been detected by buoys, gauges and/or experienced at inhabited nearby coastal locations.</li> </ul>	Each national Focal Point or representative	On or before, say, 31/12/08
English to be adopted as the common language for regional advisory messages.	Appropriate national representatives	As and when needed
<p>There should be an accreditation process whereby the IOC designates a potential RTWP as being capable of performing the role. Designation would involve:</p> <ul style="list-style-type: none"> <li>• A specified range of capabilities (see Section 2); and</li> <li>• A demonstration of performance.</li> </ul>	IOC HQ/IOC Perth Regional Program Office	As and when necessary
Capability Profiling Initial compilation by email	Chair (Australia) with France (La Reunion)	Mid-April 06
Watch/Warning Guidelines Standardization/format of information/watch Starting point - draft doc App 3.	USA	Mid-April 06
Composing a generic guidelines for the "last mile" of warning/watch (Include a demonstration right through to the beach (RANET))	Indonesia, USA, Thailand(ADPC)	Mid-April 06

Communication and collaboration/platforming among NWTCs-RTWPs (including backup systems)	Germany, USA	Mid-April 06
Intersessional WG meeting to review drafts and confirm information	Chair (Australia)	Late April 06

#### 4. Working Group Participant List

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