Report of the Chair to ICG/PTWS-XXVI

Introduction

The significance of this ICG/PTWS session cannot have escaped anyone! This year is our 50th anniversary and our first meeting since the introduction of the PTWC Enhanced Products – the use of forecast models to establish threat levels to inform the actions of Member States. I am very proud to be your chair (albeit the outgoing chair) for this significant occasion. We have already enjoyed two superb days of celebration at the symposium preceding this meeting. We have heard about the history of our tsunami system, including how it came into being, considered the current state of the system and tsunami science, but more importantly, we continue to look to the future – how can we be even more effective? Lives are still being lost to tsunami, and it must be our aim to at least minimise, if not eliminate, loss of life.

When we last met at ICG/PTWS-XXV in Vladivostok, Russian Federation in September 2013 we endorsed the PTWC Enhanced Products with a suggested transition date of 1 October 2014. The final stop/go decision was left to the Steering Committee. Your Steering Committee checked on progress when we met in Hawaii in July 2014 before giving the final go ahead for the changeover. I consider the introduction of the Enhanced Products to be the most significant change during my two terms as PTWS chair. We will look back and confirm this as a significant turning point in the 50 year history of our organisation.

The move to the Enhanced Products demonstrates the effectiveness of the governance structure introduced at ICG/PTWS-XXIII (Apia, Samoa) and endorsed at ICG/PTWS-XXIV (Beijing, China). Because of the complexity of the Pacific Ocean region, PTWS has a structure based on both Regional and Technical Working Groups. A Steering Committee comprising the Officers, Working Group chairs and representatives from the tsunami warning and information centres is charged with overseeing and continuing the activities of the group during the intersessional period.

Harmonisation with other ICGs

For much of our history (~40 years) PTWS was the only tsunami warning system. Following the Indian Ocean tsunami of 26 December 2004, the IOC established three other systems – for the Indian Ocean, Caribbean, and the North-eastern Atlantic and Mediterranean. PTWS has had an important role helping these “new” systems in their formative years. PTWC and JMA provided interim services to some of these regions as they developed. But now they are celebrating their first decade and harmonisation between the tsunami systems is becoming increasingly important. This includes active participation in TOWS (the overall IOC coordination group) and its Task Teams. In my role as PTWS Chair I have attended the TOWS meetings and our Working Group 3 chair, David Coetzee, chairs one of the TOWS Task Teams. The TOWS Task Teams are a key mechanism for ensuring harmonisation between the ICGs and are carrying out work which does not need to be duplicated by each ICG. For example, a TOWS Task Team is considering “Highest Potential Tsunami Source Areas”, drawing on work from the Global Earth Model project on the characterisation of (potentially tsunamigenic) large subduction zone earthquakes. As the Pacific is the largest ocean on the planet, this work has obvious relevance for us as we strive to understand the tsunami risk.

TOWS last met in Morioka, Japan just a month ago. The chairs of all four ICGs then took part in activities organised by JMA as part of the third World Conference on Disaster Risk Reduction in Sendai, Japan. Although PTWS is the older sibling in the tsunami world, it does not mean we cannot learn from what other ICGs are doing. For example, we should consider adopting the more quantitative measures of our performance being developed by other ICG and some of the huge variety of public education initiatives now available.
**Enhanced Products and PacWave’15**

A key focus since ICG/PTWS-XXIV has been the deployment of the PTWC Enhanced Products for tsunami threat assessment based on tsunami forecast models and pre-defined coastal zones. Since the introduction of the Enhanced Products on 1 October 2014 there have been very few tsunami events. The Enhanced Products formed the basis for PacWave’15 in early February this year – we will hear the results of the evaluation of the exercise during this meeting. Exercises are vital to the success of our core objective to save lives. Exercises are time consuming for all involved but have been an important tool for refining the Enhanced Products, testing our Standard Operating Procedures, as well as fulfilling our preparedness objectives. The introduction of the PTWC Enhanced Products has been a huge undertaking not just by PTWC, but the whole US tsunami programme, a range of aid agencies in multiple countries (too many to list in this report), and a range of dedicated individuals (again too many to list in this report). Member States gave full support to the process and the training and exercises which formed a part of the testing and refinement of the products. Thank you all!

**Ongoing Activities**

The Steering Committee met in July 2014 in Hawaii to review the progress with the training and exercise programmes, the development of Enhanced Products and to chart activities leading up to ICG/PTWS-XXVI, including the organisation of the symposium and other activities to commemorate the 50th anniversary such as the book and short video.

Since the ICG/PTWS-XX session, Regional Working Group meetings and activities have continued in all sub-regions, and I look forward to hearing the outcomes at this meeting. Work has continued on the planning for the establishment of a tsunami advisory centre for the South China Sea (SCS) region. Progress has been made towards this goal during two Regional Working Group meetings (Hong Kong, China, April 2014; Jakarta, Indonesia, February 2015). Meetings of the Task Team formed at ICG/PTWS-XXV to plan for the new advisory centre were held in conjunction with both Working Group meetings. The Working Group is progressing work on a seismo-tectonic study in the South China Sea region (with a technical workshop planned for later this year), an inventory of seismic and sea level stations in the region, including real-time data sharing mechanisms, and development of plans to produce/adapt educational materials tailored for the region. I look forward to hearing reports on progress during this ICG.

The Working Group for Central America met in September 2014 for the second time since 2011, and will present a proposal for a regional centre in Nicaragua to this ICG. It is also impressive to observe the cooperation between the members of the Working Group for the South East Pacific. Chile, Ecuador, Peru and Colombia participated in the first Regional Tsunami Warning Exercise using SRATTPS (a platform for exchanging bulletins between NTWCs in the Southeast Pacific), are involved in joint training and education activities, and are carrying out very regular communications testing using a variety of channels, including satellite telephones.

A large number of training and consultation workshops have taken place, many focusing on standard operating procedures and the Enhanced Products for tsunami threat assessment. Key funders of the training were the US and Japan, with many other donors contributing (as indicated above). For example, after the threat of tsunami was dramatically demonstrated by the Great East Japan Tsunami, Japan provided increased support (via JICA) to several Member States in Central America, South America, South East Asia and the South West Pacific.

Additionally, several technical Task Teams have met, and Member States have continued tsunami hazard and risk assessment work progressing the goals of the PTWS Strategic Plan. I personally attended a meeting of the Task Team on data sharing in the Southwest Pacific which included the launch of the Oceania Regional Seismograph Network (ORSNET) in Port Vila, Vanuatu. ORSNET is a regional initiative to enable data sharing for hazard warning in the region with Vanuatu, New
Caledonia, Tonga, Fiji, Samoa, Solomon Islands and PNG currently actively involved. Importantly, it is providing data which fills gaps in PTWC coverage in the region.

Many challenges still face the PTWS including ensuring the continued development of the Enhanced Products (for both PTWC and NWPTAC) and their uptake by Member States, and securing enough funding to enable ongoing operational training. One of our key challenges is maintaining the current high levels of public tsunami awareness over the long term. Although I am delighted with the progress made during the intersessional period, I wish to sound a note of warning. Although the governance structure of PTWS is working very well, the real work goes on within Working Groups and Task Teams and this work is being done by teams with few members. I ask that Member States consider how they can contribute and nominate members to the Working Groups and Task Teams, when requested, who will contribute strongly. There are a large number of Task Teams, but few are as active as they need to be if we are to make good progress. It may be time to consolidate the work within the Working Groups rather than continuing to create even more Task Teams.

**PTWS Future Directions**

What are the next priorities for PTWS now we have successfully introduced the Enhanced Products? One priority is for similar products to be introduced by the NWPTAC and we will hear more about that at this meeting. There is also a pressing need for PTWS to engage more effectively with the emergency management community. We must move “mitigation” from being a silent part of PTWS and encourage active participation of more emergency managers in our system. I consider our highest priority is to ensure that advances in science and the availability of the Enhanced products lead to better life-safety outcomes. Here I am talking about using the best science available to inform evacuation zone and route planning so that communities can react effectively when tsunamis occur. The best outcomes will occur when communities have a “culture of evacuation”, a philosophy espoused by the new mayor of Otsuchi, a small seaside city destroyed by the 2011 Great East Japan Tsunami which I visited last month with the TOWS team. So the challenge is to implement a programme aimed at ensuring every community at risk has full evacuation plans socialised at the community level and informed by the best physical and social science. We should adopt that outcome as our challenge for the next five years!

**Acknowledgements**

The PTWS Officers and members of the Steering Committee have worked very hard to ensure we have continued to make progress on the PTWS Strategic Plan objectives. I would like to express my sincere appreciation to all colleagues and friends who have supported my job as chair of the ICG/PTWS since 2011. I thank members of the IOC Tsunami Secretariat for their support. Although he is not with us, I would like to place on record my appreciation of the dedication and support provided to myself and PTWS by Takeshi Koizumi from JMA, Japan during his two terms as vice-chair which coincided with my terms as chair. Likewise, I thank Admiral Patricio Carrasco who has been a supportive vice-chair during my time as PTWS chair.

I wish to express a special vote of thanks to the staff of the warning centres and the International Tsunami Information Centre - I have enjoyed close and productive working relationships with Laura Kong (ITIC), Charles McCreery (PTWC) and (as already acknowledged) Takeshi Koizumi (NWPTAC). The hosting of the warning and information centres by Japan and the US is crucial for the success of PTWS and on behalf of all Member States I thank them. The transition to the Enhanced Products was supported strongly by the US tsunami programme manager, Mike Angove – thank you Mike. My fellow New Zealander on the Steering Committee, David Coetzee has provided continuing help and support, without which my task would have been much harder.

After our bi-yearly ICG, we are required to report orally to the IOC Executive Council or General Assembly. Last year for various reasons I could not undertake the reporting trip, and this was done for
us by Commander Enrique Silva from Chile. I would like to thank him for undertaking this task on my behalf and vice-chair Admiral Patricio Carrasco for arranging for him to do so. I understand Member State representatives attending the Executive Council were very supportive of the activities of all ICGs and commented favourably on the progress we are making with the enhanced tsunami alerting products.

Finally, I would like to thank our hosts, the United States of America, for the invitation to join them in Hawaii to celebrate our 50th anniversary. I must make special mention of the amazing hard work and dedication of Laura Kong and her team – they have brought us the symposium, the video and the commemorative book. The US hosting of the symposium and this session of ICG/PTWS is greatly appreciated!

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