INTERGOVERNMENTAL OCEANOGRAPHIC COMMISSION (of UNESCO)

INTERGOVERNMENTAL COORDINATION GROUP FOR THE TSUNAMI AND OTHER COASTAL HAZARDS WARNING SYSTEM FOR THE CARIBBEAN AND ADJACENT REGIONS (ICG/CARIBE EWS) ORGANIZATIONAL STRUCTURE AND GOVERNANCE

ICG/CARIBE EWS Organizational Structure and Governance

The Intergovernmental Coordination Group for the Tsunami and Other Coastal Hazards Warning System for the Caribbean and Adjacent Regions (ICG/CARIBE EWS) is a subsidiary body of the Intergovernmental Oceanographic Commission (IOC) of the United Nations Educational, Scientific, and Cultural Organization (UNESCO). It was established in 2005, and is currently comprised of 27 Caribbean and Adjacent Regions Member States (including its territories) who have officially designated Tsunami National Contacts (TNC) and/or Tsunami Warning Focal Points (TWFP). The ICG/CARIBE EWS coordinates international tsunami warning and mitigation activities, including the issuance of timely and understandable tsunami bulletins in the Caribbean. Comprehensive tsunami mitigation programmes require complementary and sustained activities in tsunami hazard risk assessment, tsunami warning and emergency response, and preparedness. Stakeholder involvement and coordination is essential, and community-based, people-centered mitigation activities will help to build tsunami resiliency.

More information on the CARIBE EWS is available from http://www.ioc-tsunami.org.

The following describes the various components of the ICG and how they work together to enable an effective international warning system.

Intergovernmental Coordination Group (ICG)

The ICG is an IOC subsidiary body that reports to the IOC Assembly or Executive Council. The ICG/CARIBE EWS was established by IOC Resolution XXIII-13 in 2005 as a regional international body, and has met every year since 2006.

Official delegates to the ICG represent member states' interests in the ICG. The ICG activities are member state driven according to the needs of the region taking the advice of experts contributing to Working Groups and other tertiary bodies. As a regional subsidiary body, the ICG Terms of Reference specify that it is comprised of Member States in that region. Other countries outside the region, and organizations are considered Observers to the ICG.

In addition to the CARIBE EWS, the PTWS was established by IOC in 1965 as a regional international body, and has met every two years since 1968 and in 2005 ICG's were also

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established for the Indian Ocean (ICG/IOTWS), and North East Atlantic and Mediterranean and Connected Seas (ICG/NEAMTWS), and have met frequently starting in 2005. The development of these systems is based on a basin-focused strategy and approach that considers the characteristics of the region and the communities at risk. It acknowledges a region's unique oceanographic, geophysical, technical, educational, cultural, and political interests.

ICG/CARIBE EWS Officers

CARIBE EWS leadership is guided by member state's elected Officers (Chairperson, 3 Vice-Chairpersons) along with the elected Officers (Chair and Vice Chairs) of the Working Group.

ICG Working Groups

CARIBE EWS work is enabled through Working Groups (WG). Intra-sessional (or sessional) WGs work during an ICG and report back to the ICG in which they were established. Intersessional WGs work between ICGs and report at the next ICG. Inter-sessional WGs may decide to meet, or may carry their work out through e-mail, teleconferences, in-person meetings, or other means. Terms of Reference for WGs are stated through Recommendations endorsed by the ICG. The Recommendation may also state the WG members. A WG Chair may be designated by the ICG, or elected by WG members. The Chair provides leadership for the WG and is responsible for written reports summarizing its work. Working Group members are nominated by Member States according to their individual abilities to contribute to the tasks of the WG. A WG should dissolve after its tasks have been completed.

Currently, the CARIBE EWS has four working groups:

WG1: Monitoring and Detection Systems, Warning Guidance

WG2: Hazard Assessment

WG3: Warning Dissemination and Communication

WG4: Preparedness, Readiness and Resilience

Member States / Tsunami National Contacts (TNC)

Each Member State is represented by a Tsunami National Contact that serves as the ICG contact and the country's coordinator of its international tsunami warning and mitigation activities. The person is usually part of the main stakeholders of the national tsunami warning and mitigation system programme.

Tsunami Warning Focal Point (TWFP)

The 7x24 contact person, or other official point of contact or address, is designated by an ICG member state for rapidly receiving and issuing tsunami event information (such as warnings). The Tsunami Warning Focal Point has the responsibility of notifying the emergency authority

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(civil defense or other designated agency responsible for public safety) of the event characteristics (earthquake and/or tsunami), in accordance with the procedures of the Tsunami Response Plan. The Tsunami Warning Focal Point receives tsunami bulletins from the PTWC, on an interim basis and until the region establishes its own Regional WarningCenter (s).

TNC and TWFP for each country are officially-designated through high-level processes (Annex 1).

Tsunami Unit (TSU)- IOC Secretariat

The IOC Tsunami Unit (TSU) presently coordinates the four tsunami warning and mitigation systems and works to identify the commonalities in terms of specifications, guidelines, standards, procedures and processes including developing synergies with existing technical groups dealing with related matters. The TSU as part of the IOC Secretariat is based in Paris, France, and composed of the Unit Head, the Secretariats of the ICGs, the ITIC, and technical and professional staff. The TSU provides guidance for the final integration of ICG's basin-driven work that occurs at the IOC Governing Bodies level.

ICG/CARIBE EWS Secretariat

The IOC Executive Secretary provides, upon request by the IOC governing bodies, secretarial support for the ICG. The CARIBE EWS Technical Secretary (CTS) coordinates and facilitates the activities of the ICG, interacting directly with Member States and regional organizations. The CTS oversees in coordination with the CARIBE EWS Officers the arrangement, conduct, and reporting of the ICG's sessions and other meetings. The CTS facilitates the ICG's Action Plan working with Member State Tsunami National Contacts for overall international activities, with Tsunami Warning Focal Points for issues directly related to tsunami bulletins, and with the PTWC. The CARIBE EWS Technical Secretary is part of the IOC's Tsunami Unit

International Tsunami Information Center (ITIC)

The <u>International Tsunami Information Center</u> (ITIC) serves as the operational capacity building and system implementation center assisting all PTWS and other TWS Member State to develop new or strengthen existing national and sub-regional warning and mitigation systems. ITIC information services cover warning center operations, training and technology transfer, education and public awareness, mitigation and countermeasures, historical tsunami catalogues and post-tsunami surveys. A CTIC is currently being established in Barbados for the CARIBE EWS.

Pacific Tsunami Warning Center (PTWC)

The <u>Pacific Tsunami Warning Center</u> (PTWC) serves as the interim international operational tsunami warning headquarters for the CARIBE EWS. The Sub-regional center in Alaska (WC/ATWC), USA work closely with the PTWC and currently provides warning services to Version 1.0, December, 2010.

Puerto Rico and the Virgin Islands. The centers issue timely tsunami alerts to designated national authorities who then take action to protect their populations. The USA <u>Caribbean Tsunami Warning Program</u> was established in 2010 as a potential first step towards a Caribbean Tsunami Warning Center.

IOC decisions on CARIBE EWS

CARIBE EWS Resolutions and Recommendations are developed by Member States in coordination with the Secretariat. These are reported to the next IOC Governing Body for endorsement and official adoption

Cooperation with other organizations

The CARIBE EWS, through ITIC, CTIC, PTWC, CTWP and the ICG/CARIBE EWS Secretariat, has established many cooperations with international agencies in order to support, sustain, and coordinate its operational tsunami warning and mitigation system. The CARIBE EWS's goal is to save lives, property and livelihood, and as such, seeks to work in partnership with all appropriate agencies. The IOC's United Nations partners include, for example, the IOC Sub-Commission for the Caribbean and Adjacent Regions (IOCARIBE), the International Strategy for Disaster Reduction (ISDR), the United Nations Development Programme (UNDP), the World Meteorological Organization (WMO) and the Preparatory Commission for the Comprehensive Nuclear-Test-Ban Treaty Organization (CTBTO). Specialized and regional organizations include the Incorporated Research Institutions for Seismology (IRIS), International Union of Geodesy and Geophysics Tsunami Commission (IUGG-TC), the Caribbean Disaster and Emergency Management Agency (CDEMA), and Centro de Coordinación de la Prevención de Desastres Naturales en América Central (CEPREDENAC).

CARIBE EWS Communications Plan

The Guide is intended for use by National Tsunami Warning Focal Points as customers receiving the advisories from the (interim) tsunami warning centers. It includes a summary of the operational procedures, instrument networks used, criteria for the reporting and issuing of tsunami alerts, recipients of the information, and the methods for message transmission, as well as a number of Annexes that provide explanatory and background information on technical evaluation methods and other guidance in order to assist customers in understanding the products that are issued. The Communications Plan was approved in 2007 and is reviewed and updated, if necessary, at least annually.

ANNEX I: TWFP AND TNC FORMS

<u>UNESCO IOC</u> 7/24 TSUNAMI WARNING FOCAL POINT (TWFP) FORM

Note that more than one contact point may be designated using a new Form for each

Name of Country
Place in Country *
Place in Country * *Only if this Contact Point is not for the entire country's coast. For example, a remote island.
Do you agree to share your TWFP information with other TWFP contacts? Yes No
1. Tsunami Warning Focal Point for receiving Tsunami Bulletins
The Tsunami Warning Focal Point (TWFP) is a 7x24 contact person, or other official point of contact or address, designated by a government for receiving and issuing tsunami event information. The TWFP receives international tsunami information from the PTWC or other regional warning centers. It then has the responsibility of notifying the emergency authority of the event characteristics (earthquake and/or tsunami).
The TWFP contact information requires 7x24 telephone, facsimile, or e-mail information. It represents who should be contacted for clarification concerning the designated communication method, or who will be contacted in an emergency if all designated communication methods fail
Agency name
Contact Person in Agency or Officer in Charge:
Name
Position
Telephone Number
Fax
Cellular Telephone Number
E-mail Address:
Postal Address

2. Designated Communication Method Information (operational on 7/24 basis).

Please specify GTS (WMO-Global Telecommunication System), AFTN (Aeronautical Fixed Telecommunications Network), Fax, or E-mail in a priority order. Note that bulletins from JMA are not available by AFTN. Please recognize that Fax and E-mail alone are not the timeliest and should not be used as the primary means. Also include with the international 4-letter GTS Location Indicators used in the abbreviated headings, the 8-letter AFTN Address Indicator, the Fax number, or the E-mail address, respectively. For GTS Location Indicators see http://www.wmo.int/web/www/ois/Operational_Information/VolumeC1/VolC1.html. The AFTN Address Indicators are found in ICAO (International Civil Aviation Organization) Documents 7910 and 8585, and consist of a 4-letter location indicator and 4-letter type-of-operations indicator. In general, the GTS and AFTN dedicated, private communication methods guarantee timely receipt of bulletins within several minutes, whereas Facsimile and E-mail may incur delays of tens of minutes during peak usage times. Note that while all dissemination methods designated below will be made simultaneously by the issuing centers, but bulletins may reach their destinations at different times depending on the communication method.

language barriers primary means o	ephone number for voice communication, in a prior, the operational warning centers do not use warning dissemination, but as a backup or for execupt through the above means.	voice communication as the
Alternate 1: _ Alternate 2: _		
		
Date:	Submitted by:	

Alternate 4.

UNESCO IOC TSUNAMI NATIONAL CONTACT (TNC) FORM

Note that more than one contact point may be designated using a new Form for each

Name of Country		
Tsunami National Contact	t	
	n ICG Member State government to represent his/her countil tsunami warning and mitigation activities.	ry in the
Agency name		
Contact Person in Agency o	or Officer in Charge:	
Position Telephone Number Fax Cellular Telephone Number E-mail Address: Postal Address		
Comments:		
Date:	Submitted by:	
	nd copies of correspondence to:	
Mr. Bernardo Aliaga		
Technical Secretary for ICC Commission/UNESCO	G/CARIBE EWS, Intergovernmental Oceanographic	
Tel: +33 (0) 1 45 68 39 80,	email: B.Aliaga@unesco.org	

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