BASIC INFORMATION

1. ICG/PTWS Tsunami National Contact (TNC)

Name: Humberto Gomez Proaño
Title: CPNV EM
Organization: Instituto Oceanográfico de la Armada del Ecuador (INOCAR)
Postal Address: Av. 25 de Julio, vía Pto. Marítimo, Base Naval Sur, Guayaquil-Ecuador
E-mail Address: direccion@inocar.mil.ec
Telephone Number: (593) 4-2481100
Fax Number: (593) 4-2485166
Cellular Telephone Number: (593) 996647723

2. ICG/PTWS Tsunami Warning Focal Point (TWFP)

TWFP Agency name: Instituto Oceanográfico de la Armada del Ecuador (INOCAR)
TWFP Agency Contact or Officer in Charge (if different from NTWC Agency):
Name: T
Position: Head of Oceanography Department
Telephone Number: 
E-mail Address: 
Postal Address: 

TWFP 24x7 point of contact (office, operational unit or position, not a person):
Name of office, operational unit or position: Centro de Monitoreo Oceánico
E-mail Address: 
Telephone Number: 
Cellular phone number: 
Fax: 

National Tsunami Warning Centre (if different from the above)
NTWC Agency Name: Instituto Oceanográfico de la Armada del Ecuador (INOCAR)
NTWC Agency Contact or Officer in Charge (person):
Name: 
Position: Head of Oceanography Department
Telephone Number: 
Email address: 
Postal Address: 

3. Tsunami Advisor(s), if applicable

Name: Secretariat Risk Management (SGR)
Postal Address: Centro Integrado de Seguridad, Samborondón-Ecuador
E-mail Address: direccion@sngr.gob.ec
Emergency Telephone Number: (593) 42593500
Emergency Fax Number: 
Emergency Cellular Telephone Number: (593) 985889318
4. Tsunami Standard Operating Procedures for a Local Tsunami

INOCA is operating 24 hours per day, 7 days per week and has the responsibility to identify and characterize events that have the potential to generate local tsunami with the help of Nacional Seismological Service, Instituto Geofísico of Politécnica Nacional University of Ecuador (IG-EPN). The threshold for declaring a potential local tsunami emergency is undefined, but the preliminary protocol indicates a magnitude Mw 7.5 or greater in order to start the process. This information is sent from IG-EPN to INOCAR, and then INOCAR advise to SGR, the thread assessment with a technical recommendations, both (IG and SNGR) also operating on a 24 hours per day basis and all the Navy Port authorities under high priority messages. They act locally in coordination to deal with the emergency. The emergency situation is terminated when INOCAR detects no sea level anomalies at the near-field marineographic stations. INOCAR issue a tsunami bulletin: “tsunami warning or tsunami watch is cancelled”.

5. Tsunami Standard Operating Procedures for a Distant Tsunami (when a distant tsunami hazard exists)

The organization that identifies and characterizes tsunamigenic events from a distant source is INOCAR. INOCAR receive all messages from PTWC. Furthermore is able to get seismic moment data coming from National Seismological Service (IG-EPN) and location information from several sources through e-mail and web pages, seismic data coming from NEIC, PTWC bulletins, and monitors sea level data of the islands stations where any distant tsunami is recorded before reaching mainland Ecuador. If the recorded tsunami waves have amplitudes of 0.5 meters or more, a Tsunami Warning is transmitted including arrival times to the coast using the Tsunami Travel Time software. INOCAR uses the Commit/MOST software in order to identify potential damage in the Ecuadorian coasts. The information provided by PTWC is immediately routed to SGR and Maritime (Naval) Authorities who will start operating at a local level if a tsunami watch or warning is declared by the NTWC.

- What organization identifies and characterizes tsunamigenic events?
The organization that identifies and characterizes tsunamigenic events from a distant source is INOCAR through data from different sources. Also, INOCAR receive information from IG-EPN in order to confirm the parameters.

- What is the threshold or criteria for declaring a potential tsunami emergency?
The criteria for declaring a potential tsunami emergency is the wave height (>50cm) obtained from tsunami modeling for Ecuadorian coast. The model used is the Commit/MOST.

- What organization acts on the information provided by the agency responsible for characterizing the potential tsunami threat?
The Secretariat Risk Management (SGR) and the Maritime Authority

- How is the tsunami information (warning, public safety action, etc.) disseminated within country? Who is it disseminated to?
Secretariat for Risk Management is responsible for disseminating Tsunami Watches and Warnings to the general public and the media. INOCAR and SGR are linked by UHF radio, in addition to the common communication systems. INOCAR and SGR also work on a 24 hours basis monitoring any and all emergencies occurring in the country through many links.

- How is the emergency situation terminated?
After two hours of no register perturbation in the tide gauges.
For Distant Tsunami Procedures:
What actions were taken in response to warnings issued by PTWC, WC/ATWC, and/or JMA NWPTAC during the intersessional period?
The information provided by PTWC is immediately routed to SGR and Maritime (Naval) Authorities who will start operating at a local level if a tsunami watch or warning is declared by the NTWC.

6. National Sea Level Network

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<tr>
<th>UBICACIÓN</th>
<th>LATITUD</th>
<th>LONGITUD</th>
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![Map of National Sea Level Network](image-url)
7. **Information on Tsunami occurrences**

There is not information about tsunami occurrences.

8. **Web sites (URLs) of national tsunami-related web sites**

There is not web site for the Tsunami Warning Center, however all the information related to tsunami occurrences is issue through the web site: www.inocar.mil.ec

9. **Summary plans of future tsunami warning and mitigation system improvements.**

The Ecuadorian Tsunami System is working with JICA (Japan International Cooperation Agency) in the development of a Capabilities Enhancement Project. The project is aimed to enhance the national seismic network and reach the capacity to develop a database of pre-computed local sceneries in order to reduce the time for warning and response process.

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**NATIONAL PROGRAMMES AND ACTIVITIES INFORMATION**

10. **EXECUTIVE SUMMARY**

INOCAR has created the Ocean Monitoring Center, CMO, it replaces the Tsunami Warning Center, this center is operating 24 hours per day, 7 days per week. CMO receives information form PTWS and other sources with the support of IG-EPN. INOCAR also has a Tsunami Warning Center operating in Galápagos, which is intended to assume a main role in case of collapse of Guayaquil located in Guayaquil.

SGR coordinate all the activities related to mitigation and response from coastal communities to the tsunami warning. Also, SGR has coordinate exercises and interchange of information between technical institutions from Colombia and Peru. Especial aims have been made to the regional threats at the political borders.

CMO does periodically communication test with Dirección de Hidrografía y Navegación (Perú), Corporación OSSO (Colombia), Dirección General de la Armada de Colombia (DIMAR) and Servicio Oceanográfico e Hidrográfico de la Armada (Chile) are performed in order to improve the response of all national systems.

**Date**: March, 11 2015  
**Name**: Willington Rentería