

**Table 1. Seismic criteria for PTWC's issuance of bulletins in the Indian Ocean region.**

Earthquake Depth	Earthquake Location	Earthquake Magnitude (Mw)	Description of Tsunami Potential	Bulletin Type
< 100 km	Under or very near the sea	6.5 to 7.0	Very small potential for a destructive local tsunami	Tsunami Information Bulletin
		7.1 to 7.5	Potential for a destructive local tsunami	Local Tsunami Watch
		7.6 to 7.8	Potential for a destructive regional tsunami	Regional Tsunami Watch
		$\geq 7.9$	Potential for a destructive ocean-wide tsunami	Ocean-wide Tsunami Watch
	Inland	$\geq 6.5$	No tsunami potential	Tsunami Information Bulletin
$\geq 100$ km	All Locations	$\geq 6.5$	No tsunami potential	Tsunami Information Bulletin

*Earthquake Magnitude:* The magnitude used by PTWC is the moment magnitude, Mw. It is more accurate for large earthquakes than the more common Richter magnitude. The moment magnitude determined by PTWC for initial bulletins is Mwp, based on the first arriving seismic P waves. Subsequent estimates of Mw may be made by methods based on later arriving seismic waves.

*Local Tsunami:* A local tsunami is one with destructive or life threatening effects usually limited to within 100 km of the epicenter.

*Regional Tsunami:* A regional tsunami is one with destructive or life threatening effects usually limited to within 1000 km of the epicenter.

*Ocean-wide Tsunami:* An ocean-wide tsunami is one with destructive or life threatening effects that can extend across an entire ocean basin.

### 3. Bulletin Content

Bulletins are divided into just a few general sections. A **header** gives the bulletin number. It starts at 1 for each event and is incremented if subsequent bulletins are issued for the same event. The header also indicates who issued the bulletin, in this case PTWC, and the time the bulletin is issued. The header is followed by a statement about **who the bulletin is intended for** -- all countries within and bordering the Indian Ocean. The next line is a banner indicating the **type of bulletin**, an Information Bulletin or a Tsunami Watch. If a Tsunami Watch is in effect, the countries in a watch are indicated. This is followed by the **preliminary earthquake parameters** including the origin time, coordinates, location name, and earthquake magnitude. If any **sea level observations** are available, they are provided next. Until more real time reporting sea level gauges are installed, however, such observations will be very limited or non-existent. The next section is the **evaluation**. It contains descriptive language about the potential for a destructive tsunami. If a Tsunami Watch is issued, **estimated arrival times** for forecast points (Figure 3 and Table 2) within the Watch area are provided. Last is a statement about **if and when a subsequent bulletin** will be issued for the event. It is noted that the JMA may also issue tsunami information regarding any event.