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## TSP Australia Report

**Yuelong Miao (Bureau)**  
**Adrienne Mosely (GA)**

*Yuelong.miao@bom.gov.au*

*Adrienne.moseley@ga.gov.au*

*19th Meeting of ICG/IOTWMS Steering Group, Jakarta, 17-19 June 2025*

# TSP Australia Structure

TSP Australia is operated by the JATWC (Joint Australian Tsunami Warning Centre), consisting of:

**Geoscience Australia (GA), Canberra:** Earthquake Monitoring and Alerting  
**Bureau of Meteorology (The Bureau), Melbourne & Brisbane:** Sea Level Monitoring and Tsunami Warning



*JATWC staff located at Geoscience Australia (left) and Bureau of Meteorology (right)*

# TSP Australia Recent Developments

## Bureau of Meteorology

**ISO 9001.** The Bureau's Tsunami Warning Services for both national and Indian Ocean responsibilities, has been internationally accredited as an ISO 9001 compliant quality managed system in July 2020.

- It was re-accredited in 2023 for a further 3-year to 2026.
- Annual surveillance audit occurred in 2024, and the next is scheduled for early July 2025.

**TOAST.** Bureau-JATWC has implemented 2 minor updates to The Tsunami Observation and Simulation Terminal (TOAST) system. These updates contain bug fixes and ease of use features.

**DART.** Bureau-JATWC recently restored two DART stations in the Tasman Sea. Only one out of 6 DART stations is now non-functioning.

## Geoscience Australia

**ISO 9001.** GA-JATWC has commenced work towards ISO 9001:2015 accreditation for GA-JATWC systems (as input to BOM-JATWC accredited system).

**SeisComP6.** GA-JATWC have upgraded to SeisComP6 – currently in test

**Seismic Array.** GA-JATWC have tested seismic array processing and are running the processor in real-time, in parallel to GA-JATWC operations. Assessment of performance is continuing ahead of plans to operationalise the seismic array processor.

# TSP Australia NAVAREA Trial

TSP Australia has been generating NAVAREA products for many years but no active distribution.

As part of IOTWMS Comms Test 29, TSP Australia trialled the NAVAREA products to a small test group. Products were generated but failed to disseminate. A small config change was made to the dissemination system, and the final bulletin was re-issued the following day.

NAVAREA products will continue to be sent to the trial participants in real events, and NAVAREA coordinators will be invited to trial them during IOWAVE25.

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IDY68531
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TEST TSP AUSTRALIA TSUNAMI BULLETIN NUMBER 3 FOR

NAVAREA VII, NAVAREA VIII, NAVAREA IX, NAVAREA X, NAVAREA XI

THE ENTIRE INDIAN OCEAN

TSUNAMI CANCELLATION MESSAGE ISSUED BY TSUNAMI SERVICE PROVIDER AUSTRALIA IN
SUPPORT OF THE UNESCO/IOC INDIAN OCEAN TSUNAMI WARNING AND MITIGATION SYSTEM AT
0645 UTC WEDNESDAY 11 JUNE 2025.

THE THREAT HAS NOW LARGELY PASSED FOR THE TSUNAMI GENERATED BY A MAGNITUDE 9.0
EARTHQUAKE THAT OCCURRED NEAR NICOBAR ISLANDS, INDIA REGION [7.20N, 92.90E] AT
0600 UTC 11 Jun 2025.

HOWEVER, SHIPS APPROACHING THE COAST SHOULD STILL CONSULT LOCAL AUTHORITIES
REGARDING LOCAL CONDITIONS AND ADVICES.

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# TSP Australia Performance

	Service Level 1 EQ Bulletins (Change to report <b>Mag 6.8</b> and above in <b>all source zones</b> )					Service Level 2 Threat / No Threat Bulletins			General
TSP	KPI 1 ET First EQ Bull Target: 10 mins (% met)	KPI 2 POD EQs Target: 100%	KPI 3 EQ Mag Target: 0.3 (% met)	KPI 4 EQ Depth Target: 30 km (% met)	KPI 5 EQ Location Target: 30 km (% met)	KPI 6 ET First Threat Bull Target: 20 mins (% met)	KPI 7 POD Tsunami Waves Target: 100%	KPI 8 Tsunami Height Accuracy Target: Factor of 2	KPI 9 False / Incorrect Bulletins Issued Target: 0
2024	10.1 (86%)	100%	0.08 (100%)	14.3 (93%)	23.3 (71%)	N/A	N/A	N/A	6
2025 (Jan-June)	9.8 (100%)	100%	0.06 (100%)	20.2 (80%)	21.0 (80%)	N/A	N/A	N/A	4

Note on KPI 6 (Elapse Time First Threat Bulletin): Did not include the No Threat Bulletin issued for the eruption of Ruang on the 30th of April due to not an EQ event.

Notes on KPI 9 False/Incorrect Bulletins. A total of 10 occurred in 2024 and 2025.

- 5 EQ bulletins issued despite of EQs being outside ESZ, due to a problem with the auto-product generation and dissemination software. This problem has now been fixed.
- 5 No Threat bulletins issued despite of not meeting Service Level 2 criteria. This is caused by human error and additional training has been provided since.

Meets Target

Near Target

Misses Target

# TSP Australia Non-seismic Products

No threat Bulletins for the Indian Ocean and Australia were issued in response to the eruption of Ruang on the 30th of April. This is the first non-seismic product issued by a TSP for the Indian Ocean.

EARTHQUAKE: TALAUD ISLANDS, INDONESIA 18:35 UTC 29 April 2024 Mag N/A

INFORMATION FOR BULLETIN 1.No Threat Bulletin 2109UTC 29 Apr 2024

Exchange Bulletins	Threat Map	Threat Table	Deep Water Wave Amplitude Map	Travel Times Map	NTWC Status Reporting Form	Other Data
<p>IDY68500</p> <p>-----</p> <p>TSUNAMI BULLETIN NUMBER 1 (TYPE-II THREAT ASSESSMENT BULLETIN) IOTWMS TSUNAMI SERVICE PROVIDER AUSTRALIA (JATWC) ISSUED AT 2109 UTC Monday 29 April 2024</p> <p>-----</p> <p>... NO TSUNAMI THREAT IN THE INDIAN OCEAN ...</p> <p>This bulletin applies to areas within and bordering the Indian Ocean. It is issued in support of the UNESCO/IOC Indian Ocean Tsunami Warning and Mitigation System (IOTWMS).</p> <p>1. TSUNAMI SOURCE INFORMATION IOTWMS-TSP AUSTRALIA has detected a volcanic eruption at Ruang with the following details:</p> <p>Date: 29 Apr 2024 Origin Time: 1835 UTC Latitude: 2.31N Longitude: 125.36E Location: TALAUD ISLANDS, INDONESIA</p> <p>2. EVALUATION Based on a tsunami travel time threat assessment, there is NO THREAT to countries in the Indian Ocean.</p> <p>3. ADVICE This bulletin is being issued as advice. Only national/state/local authorities and disaster management officers have the authority to make decisions regarding the official threat and warning status in their coastal areas and any action to be taken in response.</p> <p>4. UPDATES No further bulletins will be issued by IOTWMS-TSP AUSTRALIA for this event unless other information becomes available.</p> <p>Other IOTWMS-TSPs may issue additional information at: IOTWMS-TSP INDIA: <a href="http://www.incois.gov.in/Incois/tsunami/eqevents.jsp">http://www.incois.gov.in/Incois/tsunami/eqevents.jsp</a> IOTWMS-TSP INDONESIA: <a href="http://rtsp.bmkg.go.id">http://rtsp.bmkg.go.id</a></p> <p>5. CONTACT INFORMATION IOTWMS-TSP AUSTRALIA Joint Australian Tsunami Warning Centre (JATWC) Bureau of Meteorology GPO BOX 1289 Melbourne, Victoria, Australia, 3001 <a href="http://reg.bom.gov.au/tsunami/rtsp">http://reg.bom.gov.au/tsunami/rtsp</a></p> <p>END OF BULLETIN</p> <p>-----</p>						

# TSP Australia Future Developments

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Bureau-JATWC has plans for TOAST updates, including updating the national service to contain an additional land inundation threat tier for use by emergency services only. There is no change to the public-facing service.

Bureau-JATWC will be transitioning its national tsunami warnings to a new Bureau public facing website.

JATWC to engage in the recently approved national project which is to develop a volcanically generated tsunami source scenario database with potential tsunami impact to Australia.

JATWC to work toward adapting Tsunami products to meet the Australian Warning System requirements.

# THANK YOU

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**Adrienne Mosely (GA)**

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