



Government of Samoa

2nd Pacific Meteorological Council Meeting, 1-5 July 2013, Nadi, Fiji Islands (Agenda 6.4.2)

**Tropical Cyclone Warning and Response –
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Overview

- **Monitoring & Warnings**
 - **Case study – Tropical Cyclone Evans, 11- 15
December 2012**
- **Responses**
- **Challenges**
- **Recovery**



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TC Monitoring and Warnings Issuance

1. Steps

- 1.1 Analysis of regional synoptic systems and surface/upper air charts analysis for tropical depressions and potential development into a tropical cyclone;**
- 1.2 Consultations with RSMC – FMS (Special Advisories), BoM, NOAA (Pago NWS – National Headquarters in Hawaii);**
- 1.3 Positive (+) – notify Chair of DAC – DMO presentation from MD on situation**
- 1.4. Approve – TCWC activation and procedures implementation and issuance of SWBs to media;**
- 1.5. Regular Media briefing – radio and television interviews**



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Case Study: Tropical Cyclone Evans, 11-15 July 2012

- Sunday 9th December 2012 – TD system detected and potential of development
- Tuesday 11th December 2012, 5:00 p.m. bulletin High Wind Advisory - strong winds (sust. 25 – 33 knots – coastal small crafts advisory alia and fishing boats);
- Wednesday 12th December 2012 SWB1, 5:00 p.m. Gale Warning -gale force winds (sust.34 – 47 knots);
- Wednesday 12th December 2012 SWB3, 11:00 p.m. Storm Warning – storm force winds (sust. 48 -63 knots)



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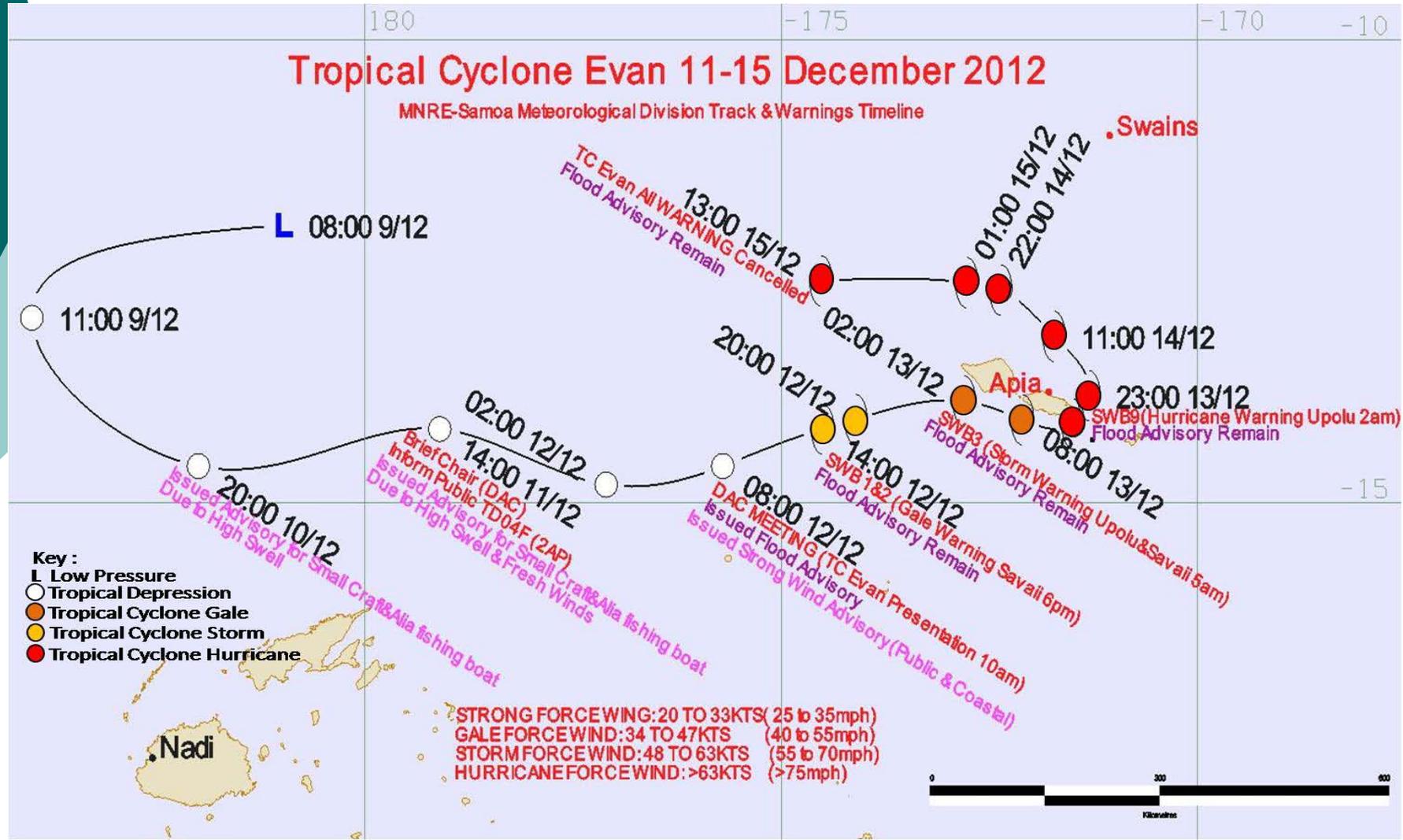
Case Study: Tropical Cyclone Evans, 11-15 July 2012

- Friday 14th December 2012 SWB9, 2:00 a.m.
Hurricane Warning – hurricane force winds
(sus > 63 knots)
- Saturday 15th December 2012 SWB20,
**Cancelled all wind warnings maintain Flood
Advisory until 5:00 p.m. normal weather
bulletin**



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11 Dec 2012 – internal briefings about the tropical depression

12 Dec 2012

Briefings for response agencies, disaster advisory committee and the national disaster council;

Media interviews to explain the system and potential impacts (Meteorology Office)

Coordinate tree cutting assistance as requested by families

13 Dec 2012

National Emergency Operation Centre – activated since 7am,

13 Dec 2012

Evacuation of flash flood affected areas

Search and rescue in the flood zones and throughout Upolu including travelling public who go stuck in between power polls and live electrical wires

DAC meeting

Declaration of Disaster for 48 hours

Evacuation centre management

Update on TC Evan via social media



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14 Dec 2012

Evacuation centre management

Update on TC Evan via social media

Requested PCRAFI to estimate cost of damages and losses

15 Dec 2012

Initial overview of the impact

NDC meeting

Proclamation of the State of Emergency for 30 days

Initial damage assessment

Relief distribution

Restoration works begins – water, power, access, communication

Coordination of requests for international assistance and

communication with international agencies/overseas countries

Search and rescue continues to look for the missing



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Challenges

- 1. Lack of knowledge and understanding on interpretations of meteorological system especially with current prevailing climate change element;***
- 2. Timing for naming of TD Nadi, Fiji***
- 3. Continued operations and the required power-backup and internet connection is critical to the any warning centre and lifeline services during TC;***
- 4. Public different perception and access to other media, such as internet, face book***



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Recovery

- 1. *Review of early warning systems – cyclones, flood, and tsunami***
 - 1. Procedures*
 - 2. Formats – bulletins*
 - 3. Media programs*
- 2. *Community disaster and climate risk management program***
 - 1. Include warning training – to inform village communities of the procedures, terminology, implications or potential impact of different threat levels (warning, watch, advisory etc)*
- 3. *Simulation***
 - 1. PACWAVE 13 – tested collaboration between Weather Services and GeoSciences in issuing tsunami warnings etc.*
 - 2. Pacific Partnership – Simulation both tabletop and operational exercise – Met Office in particular Weather Office*



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Fa'afetai (Thank you)