

Approved 02/11/2006

SAMOA
NATIONAL TROPICAL CYCLONE PLAN

2006

Approved by the National Disaster Council under Part III Section 9 of the
Disaster and Emergency Management Act 2006 on
2nd November 2006

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1. INTRODUCTION

1.1 Plan Purpose

The purpose of this plan is to detail mitigation, preparedness, response and recovery arrangements for tropical cyclones that affect Samoa.

1.2 Plan Development and Review

This plan has been produced by the Ministry of Natural Resources, Environment and Meteorology in collaboration with the Disaster Advisory Committee. The Ministry is the National Focal Point for Weather and Forecasting Services in Samoa through its Meteorological Division.

This plan is to be reviewed annually and also following each tropical cyclone event that may affect Samoa. Responsibility for the review of this plan rests with the Disaster Advisory Committee.

1.3 Plan Context

This plan is intended to coordinate and work in conjunction with programmes, policies, plans and response arrangements made by:

- Government Ministries and Agencies which have been allocated disaster management related roles and responsibilities;
- Community Government representatives in conjunction with the Ministry of Women, Community and Social Development
- Non-Governmental Organizations which have been allocated disaster management related tasks.
- Overseas authorities and organizations which are engaged in rendering assistance to the Government of Samoa in times of a disaster or emergency situation.

1.4 Relationship with the Disaster and Emergency Management Act and the National Disaster Management Plan

The development of this plan is a requirement under Section 6.4.2 of the *Disaster and Emergency Management Act 2006 and the National Disaster Management Plan 2006*

1.5 Definitions

“Cyclone Season” refers to the period within which Samoa might become affected by a tropical cyclone; the official cyclone season is from October to March.

“Response agency” means the agencies referred to in Section 11 of the *Disaster & Emergency Management Act 2006*.

“Response agency plan” means the plans referred to in Section 12 of the *Disaster & Emergency Management Act 2006*.

“Tropical Cyclone” is a storm system fueled by the heat released when moist air rises and the water vapor in it condenses.

“Wind directions”

- NORTH = MATU = TOELAU
- NORTHEAST = MATU I SASAE = TOELAU
- EAST = SASAE = MATĀUPOLU (Savai'i, Manono & Apolima) = SIUĀMULI (Upolu)
- SOUTHEAST = SAUTE I SASAE = TUAOLOA
- SOUTH = SAUTE = TOGA
- SOUTHWEST = SAUTE I SISIFO = LAI TOGA
- WEST = SISIFO = LAI
- NORTHWEST = MATU I SISIFO = LAI TOLEAU

1.6 Plan Objectives

This National Tropical Cyclone Plan aims to achieve the following:

- To ensure all communities and response agencies are prepared and ready to respond to a tropical cyclone event
- To reduce the impact of tropical cyclones in Samoa
- To ensure a safe and quick recovery after a tropical cyclone event

Methods for achieving these objectives include but not limited to:

- Fulfillment of roles and responsibilities outlined in this Plan and the National Disaster Management Plan 2006
- Agreed strategies, activities and programmes at all levels
- Response agencies' plans and activities
- Community-based programmes supported by response agencies.
- Frequent and constant simulations or exercises

Achievement of these objectives is to be monitored by the Ministry of Natural Resources, Environment and Meteorology in collaboration with the DAC. Monitoring findings are to be reported to the DAC to facilitate its decisions for improvements to the plan and its requirements.

2. TROPICAL CYCLONE RISK PROFILE

2.1 Tropical Cyclone Risk in Samoa

Tropical Cyclone risk in Samoa is rated as "extreme". This is because Samoa is usually located in an area vulnerable to Tropical cyclones during any EL NINO phenomena. Samoa's risk of being extremely affected by tropical cyclones is enhanced by its state of being a small tropical island geographically located from big landmasses within a near equatorial location.

Recent studies and tracking of Tropical cyclones in and around the Samoa region has found that there has been an increase in the frequency of tropical depressions, gale wind forces and tropical cyclones during the cyclone season in particular from December to February. It has also been noted that the intensity

of tropical cyclones has increased. The number of tropical cyclones that have reached Hurricane Category four or five has also increased from one in every six and half years to one in every five and half years.

In general, the whole country is at risk of being adversely impacted by tropical cyclones. The costal villages in particular are extremely susceptible to the devastating impacts of tropical cyclones, storm surges, waves and damaging winds affects open areas including highlands.

2.2 Historical Tropical Cyclones that affected Samoa

Since 1985, about twenty tropical cyclones occurred in the Samoan region. Out of that, four had reached hurricane force winds and made actual landfall with two in the 1990s being the most devastating out of all. Other minor Tropical Cyclones had dumped lots of rainfall over Samoa and caused a lot of damages resulting from flooding such as those events in 1983, 2001, 2002 and 2006.

The worse cyclones ever to seriously hit Samoa in recent time are tropical cyclones Ofa in 1990 and Val in 1991. Cyclone Heta struck Samoa in February 2004. During the same season in 2005, there were 5 tropical cyclones that developed around the Samoa region and moved in the general south direction. It included Lola, Meena, Nancy, Olaf and Percy with the two latter tropical cyclones classified as Category 5 the closest near misses for Samoa.

2.3 Tropical Cyclone Recurrence and Impacts:

2.3.1 Recurrence:

Based on probability analysis of historical records a Tropical Cyclone with hurricane force winds (above 75mph) is most likely to impact Samoa once every five to six years. The probability of a Tropical Cyclone with storm force winds (55 to 74 mph) to impact Samoa is most likely to increase to two in every four years.

It is also most likely that the number of Tropical Cyclone with gale force winds (38 to 54 mph) will increase to two in every Wet or Cyclone season.

2.3.2 Impacts

Tropical cyclone is one of the most serious concerns for Samoa's human, socio-economic, natural and built environment. This is because about 70% of Samoa's population and infrastructure including key lifeline services are located on low lying coastal areas.

2.3.2.1 Human and Social Impacts:

Tropical cyclones can cause a lot of deaths and injuries, substantial damages to property and severe disruption to lifeline services depending on the strength and duration of the cyclone as well as the level of preparedness a country or community had undertaken. Diseases such as dengue fever, typhoid fever, diarrhoea will emerge as a result of water and food contamination or unhygienic conditions brought about by tropical cyclones and other associated hazards. More people will most likely die as a result of being infected by these diseases.

People will also become traumatized due to the loss of life or property as well as the financial implications of reconstruction or rehabilitation. In addition, the horrific experience from a devastating tropical cyclone will continue to haunt people affected over a long period of time, hence counselling will be needed during the relief and recovery period.

In worst case scenarios, village social structures can also be affected (functionality) as individuals and families will primarily focus on their own recovery from a tropical cyclone event; it may take some time to reorganise social structures within the village communities. Therefore, there will be a need to encourage and strengthen collaboration and collectiveness.

2.3.2.2 Impacts on the Economy and Built Environment

Samoa's economy largely depends on its natural resources, which must rely on favourable climatic conditions for growth and sustenance. Devastation caused by tropical cyclones and other associated hazards will cause major disruption to Samoa's economic development. It will also mean limited financial resources will be diverted into reconstruction and rehabilitation of damages caused by tropical cyclones.

The extreme events of Tropical Cyclones Ofa and Val caused damage with costs estimates of approximately four times the gross domestic product of Samoa and took Samoa's economy back twenty years. The high winds, storm surges and heavy rains severely damaged agricultural plantations, infrastructure and the country's socio-economic base.

2.3.2.3 Impacts on the Natural Environment

Samoa's natural environment will also be affected by tropical cyclones. Tropical cyclones and associated hazards such as storm surge, strong wave and damaging wind activities, and heavy rainfall can cause long term destruction to the natural terrestrial and marine eco-systems which will take years to recover.

3. Tropical Cyclones Risk Reduction Arrangements

Section 5 of the National Disaster Management Plan 2006 sets a general framework for disaster risk reduction. This section lists the measures to reduce Samoa's risks and vulnerabilities to some of the hazards including tropical cyclones; some of these measures are currently implemented through government and non-government organizations risk reduction programmes.

3.1 Location of development(s)

3.1.1 New development(s)

- It is encouraged for safety to locate new developments further inland and away from the coastal areas; if this option is impossible, then precautionary or mitigation measures should be in place to ensure safety of the people who will occupy, operate and or use this development(s).

3.1.2 Existing development(s)

- Option 1: Relocation

This option could be very expensive for both the government and the individual citizens of Samoa hence it's highly recommended to undertake option 2.

- Option 2: Public Safety Measures

Everyone must be made aware of the cyclone preparedness and safety procedures. Refer to Appendix 2 for details of these procedures.

3.2 National Building Code: Cyclone-Resistant Buildings

- The National Building Code provides engineering and construction guidelines on how to build a cyclone-resistant building/house. This will ensure that the building/house can withstand certain wind strength preventing it from being damaged.
- The same code also provides recommended floor levels and locations for buildings/houses to be built within flood prone areas (flooding caused by

storm surges and heavy rainfall during tropical cyclones) to prevent them from being inundated.

- The Ministry of Works, Transport and Infrastructure is responsible for the enforcement of the National Building Code. The Planning and Urban Management Agency assists MWTI in enforcing this code through the development consent process. It is therefore highly recommended to everyone to ensure that their building/house designs takes into account the recommended designs, locations and materials provided by the National Building Code.

3.3 Coastal Protection

- Seawalls:
 - Seawalls provide protection against strong wave activities and storm surges. The Ministry of Works, Transport and Infrastructure is responsible for the planning and construction of seawalls.
- Coastal plants:
 - Certain plants that can grow along the coast including mangroves provide protection against strong wave activities and storm surges. Some coastal villages are currently undertaking small project activities to replant mangrove areas as well as other coastal plants to reduce the impact of strong wave activities and storm surges. The Ministry of Natural Resources, Environment and Meteorology in collaboration with the Ministry of Agriculture and Fisheries are responsible for promoting the conservation or replanting of coastal plants for protection against strong wave activities and storm surges. Villages are generally expected to support these Ministries by encouraging conservation or replanting of these coastal plants through their village development programmes.
- Coral/Barrier Reef:
 - The coral reef is the natural protection for any coastal village against strong wave activities and storm surges. This natural protection has often been destroyed by poor and unsustainable

fishing practices. It is highly recommended to use best practices for fishing activities. The Ministry of Agriculture and Fisheries is responsible for promoting best practices for fishing activities.

3.4 Signs to provide wind directions

- Signs that will give the public some idea of where the winds are moving to or coming from must be installed in every village as these directions varies from village to village. This will inform them of which part of the house to protect with shutters (or roofing iron/boards) and which part should be left open for the wind to travel through. Having the house completely covered will increase the pressure within the house. This increased pressure can blow off the roof. The DMO will work together with Samoa Red Cross Society and village mayor(s) through the MWCSO to design construct and install these signs.

3.5 Evacuation Routes and Safe Places

- All villages must identify evacuation routes as well as safe places. These routes and safe places must be clearly marked and made known to all residents of villages. Being aware of these routes and location of safe places will ease the evacuation process and prevent further disasters from being caused. Existing inland roads (auala galue/auala alo) within villages are recommended for use as evacuation routes. The identification of strong and safe buildings to shelter evacuees as well as informing residents of safe evacuation routes is the responsibility of the village mayor(s) but it is also recommended to consult the Ministry of Works, Transport and Infrastructure for advice.

3.6 Inundation or Flood Hazard Zones and Mapping

- In order to determine the areas that might become inundated by wave activities and storm surges, inundation (flooded areas) maps must be developed. The development of these maps will be based on various scenarios that will take into account certain elements that will determine the extent of the flooding inland.

- The demarcation of flood or inundation hazard zones will provide information for development planning.
- The Ministry of Natural Resources, Environment and Meteorology is responsible for the identification of flood/inundation hazard zones as well as mapping this information.

4. Preparedness Arrangements

Section 6 of the National Disaster Management Plan 2006 details preparedness arrangements to be implemented at the national and community level for any disaster. The following sub-sections provide specific preparedness arrangements for tropical cyclones and other associated hazards.

4.1 Public awareness

The information about the nature of tropical cyclones and other associated hazards such as storm surges, waves and damaging winds as well as cyclone preparedness and safety procedures will be provided to the radio and television stations for airing as the Wet or Cyclone Season begins. This information should be aired twice within two months prior to October every year and once a month during the Cyclone Season.

Pamphlets that provide safety procedures for tropical cyclones and associated hazards will also be made available to the public, schools, government Ministries and Corporations, private sector, non-governmental organizations, international and regional organizations and the media. The pamphlet will provide them with information on what to do when they are informed that a cyclone is about to affect Samoa.

The planning and implementation of these awareness programmes is part of the Community Awareness and Education Programme coordinated by the Disaster Management Office in collaboration with the Disaster Advisory Committee.

4.2 Tropical cyclone warning system

4.2.1 Source of Tropical Cyclone Warnings/Watch Information

Meteorology Division of the Ministry of Natural Resources, Environment and Meteorology is the official sources of any warning or watch information related to tropical cyclones and its associated hazards. If the Samoa's Meteorology Division is unable to provide any warning due to destruction of equipments the alternative weather services will provide the warnings for Samoa.

- First Alternative – Fiji Regional Specialized Meteorological Centre
- Second Alternative – National Oceanographic and Atmospheric Administration, Hawaii

4.2.2 Media, Response Agencies and Public Alerting System

The issuance of an advisory, watch or warning is divided into the following categories:

- Small Crafts Advisory – issue when there is a significant probability of increasing wind speed in the range of 25 to 35 mph or 20 to 33 knots affecting part or whole of Samoa's coastal areas.

Fautuaga mo vaa laiti – e faamalosia pea fai ua mautinoa o le a oo atu le malolosi o savili ile 20 ile 33 note poo le 25 i le 35 maila ile itula i totonu o le 24 itula.

- High Wind Warning – issue when there is a significant probability of increasing wind speed in the range of 25 to 35 mph or 25 to 33 knots impacting part or whole of Samoa.

Fautuaga o savili malolosi – faamalosia pea fai ua mautinoa o le a oo atu le malolosi o savilli ile 25 i le 33 note poo le 25 ile 35 maila ile itula i totonu o le isi 24 itula.

- Gale Watch – issue every six hours when wind speed is expected to reach gale force intensity of 40 to 55 mph or 34 to 47 knots within the next 24 to 48 hours.

Nofo sauniuni o matagi malolosi – faamalosia pea mautinoa o le aafia le atunu'u poo se vaega o le atunu'u i matagi malolosi e 34 ile 47 note poo le 40 ile 55 maila le malolosi ile itula i totonu o le 24 ile 48 itula o lumanai.

- Gale Warning – issue every six hours when wind speed is expected to reach gale force intensity of 40 to 55 mph or 34 to 47 knots within the next 24 hours.

Lapataiga o matagi malolosi – faamalosia pea mautinoa o le a aafia le atunu'u poo se vaega o le atunu'u i matagai malolosi e 34 ile 47 note poo le 40 ile 55 maila le malolosi ile itula i totonu o le 24 itula o lumanai.

- Storm Watch – issue every three hours when average wind speed is expected to reach storm force intensity of 55 to 70 mph or 48 to 63 knots within the next 24 to 48 hours.

Nofo sauniuni o matagi matuā malolosi – e tai tolu itula ma faamalosia pea mautinoa o le a aafia le atunu'u poo se vaega o le atunu'u i matagi matuā malolosi e 48 ile 63 note poo le 55 ile 70 maila le malolosi ile itula i totonu o le 24 ile 48 itula o lumanai.

- Storm Warning – issue every three hours when average wind speed is expected to reach storm force intensity of 55 to 70 mph or 48 to 63 knots within the next 24 hours.

Lapataiga o matagi matuā malolosi – e tai tolu itula ma faamalosia pea mautinoa o le a aafia le atunu'u poo se vaega o le atunu'u i matagi matuā malolosi e 48 ile 63 note poo le 55 ile 70 maila le malolosi ile itula i totonu o le 24 itula o lumanai.

- Hurricane Watch – issue every three hours when average wind speed is expected to reach hurricane force wind above 75 mph or 63 knots within the next 24 to 48 hours.

Nofo sauniuni o matagi afā – e tai tolu itula ma faamalosia pea mautinoa o le aafia le atunu'u poo se vaega o le atunu'u i matagi afā e sili atu le malolosi ile 63 note poo 70 maila ile itula i totonu o le 24 ile 48 itula o lumanai.

- Hurricane Warning – issue every three hours or hourly when average wind speed is expected to reach hurricane force wind above 75 mph or 63 knots within the next 12 to 24 hours.

Lapataiga o matagi afā – e tai tolu itula ma faamalosia pea mautinoa o le aafia le atunu'u poo se vaega o le atunu'u i matagi afā e sili atu ma le 63 note poo le 70 maila ile itula le malolosi i totonu o le 24 itula o lumanai.

Once the criteria for determining and confirming these categories are met and approval is provided by the CEO or Acting CEO of MNREM for gale and storm force winds and the Prime Minister for the hurricane force winds, the Meteorology Division issues a special bulletin to all local television and radio stations.

4.2.3 Standard Operational Procedures

4.2.3.1 Procedure 1: Once the criteria for determining and confirming developments of a Tropical Cyclone and its possibility to pose any threat to part or all of Samoa are met, the Meteorology Division's National Weather Services immediately follows the Tropical Cyclone Warning Operational Procedures (TCWOP) and National Tropical Cyclone Warning Issuance Procedures (NTCWIP).

4.2.3.2 Procedure 2: Once DMO is notified of the situation, immediately contact Telecom Samoa and SamoaTel.

- Digicel Samoa/SamoaTel - send watch or warning messages to all Response Agencies through their DAC representatives being included in the mobile SMS texting capability
- SamoaTel – activate landline pre-recorded voicemail for Response Agencies to dial in and receive the watch or warning message.

4.2.3.3 **Procedure 3:** DMO to follow up with Response Agencies to ensure they have received the watch or warning information in Procedure 2.

4.2.3.4 **Procedure 4:** All response agencies immediately activate their Agency Response Plans.

4.2.3.3 **Procedure 5:** Contact all radio and television stations to air cyclone preparedness and safety procedures

4.2.3.4 **Procedure 6:** Update response agencies and relay the information through the use of the UHF/VHF radio (refer to SOPs for Radio Communication), telephone, email or faxed messages.

4.2.3.5 **Procedure 7:** Activate Response Section of the National Disaster Management Plan (NDMP) (refer to SOPs for Activation of Response Section of the NDMP)

4.2.3.6 **Procedure 8:** Activate National Emergency Operational Centre (NEOC) (refer SOPs for NEOC)

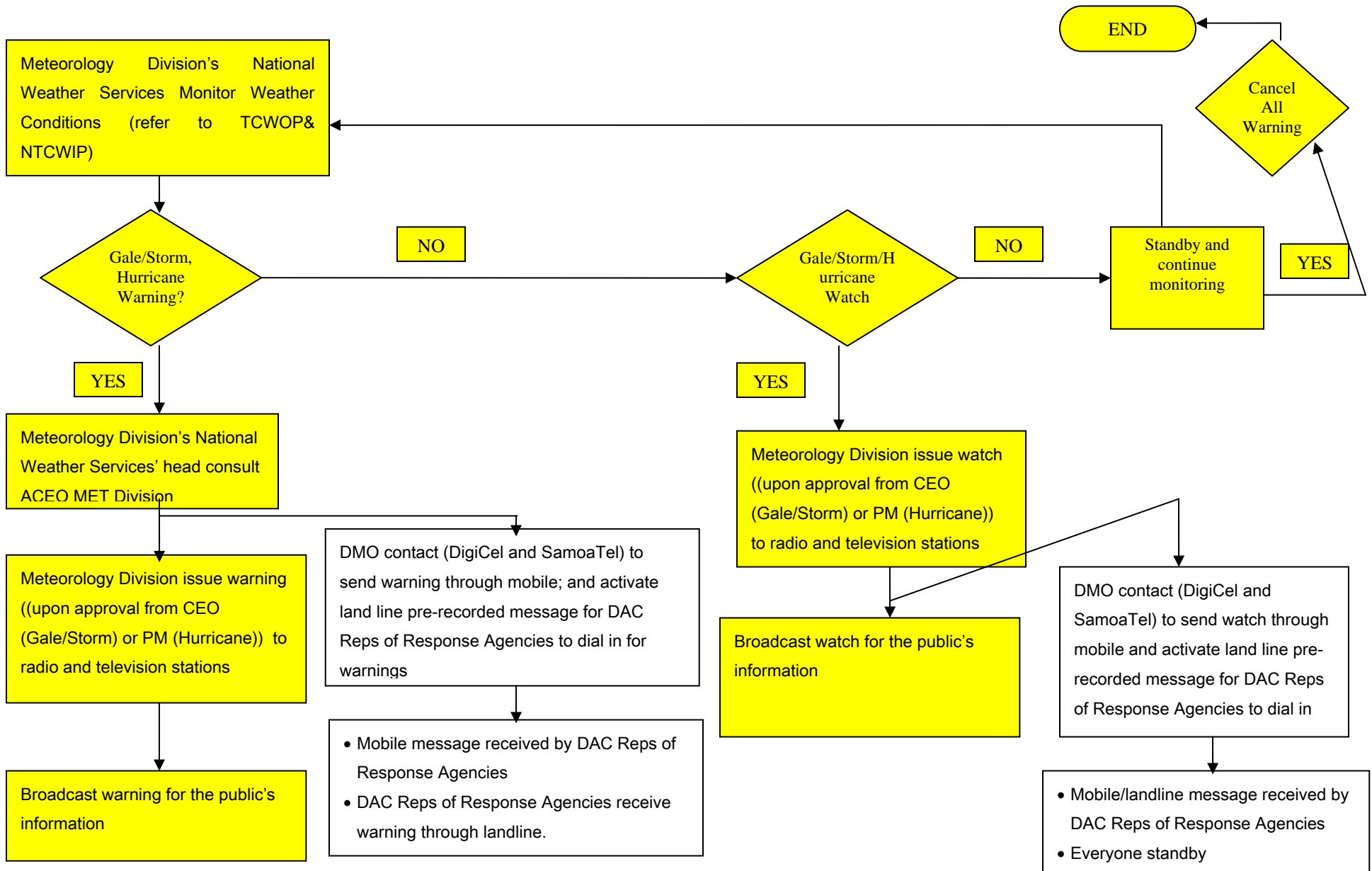
4.2.3.7 **Procedure 9:** Communicate with Response Agencies through their DAC members on their Activities and coordinate the collection of their situation reports

4.2.3.8 **Procedure 10:** Receive situation reports from response agencies and compile situation report for the National Disaster Council

4.2.3.9 **Procedure 11:** Call first DAC meeting when the “Storm Warning” is issued and subsequent meetings will called depending on the situation.

(Note: Procedure 9 – 10 will be repeated until the “All Clear” is given and that warnings are cancelled)

Figure 1: Tropical Cyclone Warning System



4.3 Training

The DMO in collaboration with the National Weather Services and the DAC will organize and conduct trainings on the following areas:

- Nature of tropical cyclones and associated hazards (storm surge, strong winds, high surfs, heavy rainfall)
- Terminologies
- Types of Warning/Watch and Procedures
- Cyclone Preparedness and Safety procedures
- First aid skills

4.4 Simulations

The DMO in collaboration with DAC will organize and conduct cyclone simulations once within two months before the Wet or Cyclone Season, once during the season and evaluation after the season. The simulations should aim at testing the following:

- Tropical Cyclone Warning Procedures (Meteorology Division)
- Standard Operation Procedures for this plan, NEOC, and Activation of the Response Section of the NDMP and Agency Response Plans
- Communication (UHF/VHF, telephones (landlines and mobiles, emails, fax)
- coordination of response agencies

5. RESPONSE ARRANGEMENTS

5.1 Responsibilities

Responsibilities listed in Table 1 are specific to response operations during a tropical cyclone event Response Agencies are to refer to Table 6 of the NDMP 2006 and their Agency Response Plans for their other responsibilities.

Table 1: Functions required during a Tropical Cyclone Event

Ref	Function	Lead Agency	Role	Support Agency	Role
1.	Weather monitoring and forecast	Meteorology Division (National Weather Services Section)	Monitor weather conditions and provide forecast	RSMC Nadi, NWS-NOAA Hawaii, Australia Bureau of Meteorology	Backup the Meteorology Weather Services and provide information and advice when require.
2.	Issuance of advisory, watch, warnings and cancellation	Meteorology Division (National Weather Services Section)	<ul style="list-style-type: none"> • Determine wind levels and confirm compliance with Samoa National Weather Services criteria • Prepare special 	JTWC NOAA, RSMC Nadi, NWS-NOAA, Australia Bureau of Meteorology	Backup the Meteorology Weather Services and provide information and advice when require.

			<p>bulletin</p> <ul style="list-style-type: none"> • Inform ACEO/CEO or Acting personnel and or Prime Minister and obtain approval • Issue to all radio and television stations 	<p>SBC, Radio Polynesia, TV3, LAUTV, Showers of Blessing, Aigafesilafai</p>	<ul style="list-style-type: none"> • Broadcast/air special bulletins
4.	Communication with Response Agencies	DMO	Contact all Response Agencies	<p>-SamoaTel & Digicel</p> <p>- SamoaTel</p>	<p>- send watch/warning message to Response Agencies through its DAC representative using SMS texting capability</p> <p>- activate landline pre-recorded voicemail for Response Agencies</p>

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				- Response Agencies	to dial in for watch or warning message. - activate Agency Response Plans and carry out internal and national responsibilities
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5.2 Evacuation and Sheltering

Everyone must know how to access safe place or shelter or rally point. The village mayor(s) upon observation of the impacts of the cyclone on village residents and their homes must immediately order evacuation and proceed as safely as possible to avoid panic and injury.

It is the responsibility of the village mayor(s) to ensure a shelter/rally point is pre-identified and that residents know the location of and route to this shelter/point. Sui o le Malo, Religious Leaders and Alii ma Faipule must assist the village mayor(s) in these efforts.

All evacuees must not return to their homes unless an "All Clear" notice is given and that preliminary assessment of the village indicates that it is safe to return. If the emergency period exceeds more than eight hours then food and water should be provided to the evacuees. The provision of food and water is the responsibility of the residents.

The coordination of evacuation and sheltering in each village is the responsibility of the village mayor(s), with the assistance of the Sui o le Malo, Religious Leaders and Alii ma Faipule.

The coordination of the evacuation in the Apia urban area in particular the Central Business District is the responsibility of the Ministry of Police and Prison.

6. RECOVERY ARRANGEMENTS

After any tropical cyclone event, the recovery provisions of the NDMP and the National Recovery Plan immediately applies.

Appendix 1: ACRONYMS

- CEO Chief Executive Officer
- ACEO Assistant Chief Executive Officer
- DMO Disaster Management Office
- MWCSO Ministry of Women, Community and Social Development
- MWTI Ministry of Works, Transport and Infrastructure
- NOAA National Oceanographic and Atmospheric Administration
- Aust. BoM Australian Bureau of Meteorology

Appendix 2: Tropical Cyclone Preparedness and Safety Procedures

Safety Rules:

BEFORE THE CYCLONE SEASON:

- Check with Building Division of MWTI or any certified builder to see if your home has been built to cyclone standards.
- Check that the walls, roof and eaves of your home are secure.
- Cover all glass areas with fit shutters, metal screens, iron roof or ply-woods
- Clear your property of loose material that could blow about and possibly cause injury or damage during extreme winds.
- In case of a storm surge/tide warning, or other flooding, know your nearest safe high ground and the safest access route to it.
- Prepare an emergency kit containing:
 - a portable battery radio, torch and spare batteries;
 - water containers and dried or canned food
 - matches, fuel, hurricane lamp, portable stove, cooking and eating utensils; and
 - a first aid kit and manual, masking tape for windows and waterproof bags.
- Keep a list of emergency phone numbers on display.
- Check neighbors to make sure they are prepared (note first priority is your own

family).

WHEN A CYCLONE WATCH (GALE/STORM/HURRICANE FORCE WINDS) IS ISSUED:

- Re-check your property for any loose material and tie down (or fill with water) all large, relatively light items such as boats and rubbish bins.
- Fill vehicles' fuel tanks.
- Check your emergency kit and fill water containers.
- Ensure household members know the strongest part of the house and what to do in the event of a cyclone warning or an evacuation.
- Tune to your local radio/TV for further information and warnings.
- Check that neighbors are aware of the situation and are preparing.

WHEN A CYCLONE WARNING (GALE/STORM//HURRICANE) IS ISSUED:

Depending on official advice provided by your local authorities as the event evolves; the following actions may be warranted.

- If requested by local authorities, collect children from school or childcare centre and go home.
- Park vehicles under solid shelter (hand brake on and in gear).
- Put wooden or plastic outdoor furniture inside with other loose items.
- Close shutters or board-up or heavily tape all windows. Draw curtains and lock doors.
- Pack an evacuation kit of warm clothes, essential medications, baby formula, nappies, valuables, important papers, photos and mementos in waterproof bags to be taken with your emergency kit. Large/heavy valuables could be protected in a strong cupboard.
- Remain indoors and stay tuned to your local radio/TV for further information.

ON WARNING FOR LOCAL EVACUATION:

Based on predicted wind speeds and storm surge heights, evacuation may be necessary. Official advice will be given on local radio/TV or from village mayor regarding safe routes and when to move.

- Wear strong shoes and warm clothing for protection.
- Lock doors; turn off power, gas, and water; take your evacuation and emergency kits.
- If evacuating inland (out of town), take pets and leave early to avoid heavy traffic, flooding and wind hazards.
- If evacuating to a public shelter or higher location, follow Police and Emergency Services directions.
- If going to a public shelter, take bedding needs and books or games for children.
- Leave pets protected and with food and water.

WHEN THE CYCLONE STRIKES:

- Disconnect all electrical appliances. Listen to your battery radio for updates.
- Stay inside and shelter (well clear of windows) in the strongest part of the building, i.e. cellar, internal hallway or bathroom. Keep evacuation and emergency kits with you.
- If the building starts to break up, protect yourself with mattresses, rugs or blankets under a strong table or bench or hold onto a solid fixture, e.g. a water pipe.
- Beware of the calm 'eye'. If the wind drops, don't assume the cyclone is over; violent winds will soon resume from another direction. Wait for the official 'All Clear'.
- If driving, stop (handbrake on and in gear) - but well away from the sea and clear of trees, power lines and streams. Stay in the vehicle.

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