SAMOA NATIONAL EMERGENCY TELECOMMUNICATION PLAN (NETP)

Prepared by the Office of the Regulator
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Executive Summary

In every village community around Samoa, emergency response personnel respond to incidents of different scales and magnitudes on a regular basis. Their ability to respond in real time is essential in establishing command and control at the scene of an emergency or disaster, maintaining event situational awareness, and operating effectively in respect of a broad range of incidents. However, in the wake of recent events in Samoa more particularly, the tsunami that hit the southern part of Upolu Island on September 29th 2009, and as numerous after-action reports and national assessments have revealed, although the seismic monitoring station detected the massive earthquake that triggered the tsunami, a lack of procedures for communicating the warning messages to the public delayed the transmissions of warnings. Therefore there are still communications deficiencies that affect the ability of responders to manage routine incidents and support responses to natural and man made disasters and during other emergencies.

Recognising the need for an emergency strategy to address these shortfalls, and recognizing the need for an overarching strategy to help coordinate and guide such efforts, the Office of the Regulator has initiated with the collaboration of all sectors namely Government Ministries, Service Providers of Telecommunication Services and private organisations, to develop a National Emergency Telecommunication Plan (NETP) for Samoa. It is a strategic plan that establishes a national vision for the future state of telecommunication utilization for emergency purposes and for directing responders to their specific roles and responsibilities. To realize this national vision and meet the goals, the NETP established five objectives for evaluating and improving the emergency telecommunication plan for Samoa.

The NETP also provides recommended initiatives and milestones as guidance to service providers, relevant government ministries and non governmental organisations in making measurable improvements in their emergency telecommunication capabilities. Investment in telecommunications capability is important, and technological innovations for emergency communications are constantly and dramatically evolving at a fast pace. With these realities in mind, we recognise the importance of incorporating new technologies as they emerge and investing in new emergency telecommunications systems. There is no simple solution for the improvement of communications during times of natural disasters and emergencies hence the Office of the Regulator's approach to the NETP involves making improvement in coordination, planning, training, exercises and the application of technology. This would be done at all at all levels of government.

The NETP will be used to identify and prioritize investments to move the Nation toward this vision. As required by the provisions of the Telecommunications Act 2005, the NETP will be a dynamically evolving document subject to review by the OOTR in coordination with the stakeholders at regular intervals.

Introduction

The ability of the disaster and emergency response personnel to effectively communicate is vital to the safety and security of our Nation. In light of recent events, it has become apparent that there is an imminent need for improving the present communication framework with respect to communications during natural disasters or emergencies. The issue of insufficient telecommunication capabilities and coordination of emergency telecommunications received national attention in the aftermath of the September 29th, 2009 earthquake and tsunami. The inability to deliver warning messages to the general public led to criticisms of the approach of the DMO in this particular case. The absence of effective communications also had a great impact on the implementation of the National Disaster Plan. These events raised awareness of the issue among public policy makers and highlighted the critical role emergency telecommunications plays in incident response. These events also prompted numerous assessments among the public on the state of emergency telecommunication which is in turn has helped the Office of the Regulator to formulate a unified approach for addressing emergency telecommunication services during disasters. Telecommunication as we know play a vital role in every natural disaster. The whole infrastructure of any country and modern society depends on effective telecommunication system to function and especially to save lives.

In the preparation of this Draft Plan a first draft was sent to stakeholders and a session was held on December 7th, 2009 to discuss and receive feedback. The comments have been incorporated into this revised draft and your comments and now once again solicited. All comments have been considered in this draft.

In an effort to ensure buy in to this Plan and to heighten its profile the support of the Ministers of Ministry of Communication and Information Technology (MCIT) and Ministry of Natural Resource and Environment (MNRE) have been obtained and they will jointly host the follow up meeting to discuss the revised Plan.

2.1 Mandates for Change

In the past decade, much has been done to help our country to move forward and adapt to natural disasters to mitigate the impact of these disasters. However, there continues to be a need for a coordinated response by the public and private sector with respect to natural disasters. The perception of natural dangers and complex threats facing this country and the

region, and the potential consequences they could have on the small Pacific Islands have become more apparent, especially with the events of September 29th, 2009. These threats include a wide range of contingencies from earthquakes to tsunami, floods, fire, cyclones, storms or other disasters (whether natural or resulting from the acts of commission or omissions of humans). Therefore there is an urgent need for immediate and adequate actions to adapt to these natural disasters and put in place measures to mitigate them. They all carry the potential of severe consequences and must therefore be addressed as a combined national effort. We must prepare for the long-term consequences of climate change and plans and guidelines to mitigate the effects of disasters must be developed. The OOTR and the stakeholders believe that a new concept for disaster management is required. This new concept must be approached through a better and improved awareness, preventative procedures and robust preparedness. This will be achieved if the response and recovery aspects of our nation's telecommunication system as efficient and as effective as possible. A united national effort is essential, one with a cooperative approach to manage these systems and with the ultimate goal of a significant reduction in our nation's vulnerability over time. Successful implementation of this new concept is critically dependent on information sharing and consistent communication between all parties involved. To facilitate this mandate, a consistent framework will be provided that will standardize natural disasters management practices and procedures to ensure that all parties involved can work effectively and efficiently together. The coordinated response will be to prepare for, respond to and recover from these natural disasters regardless of cause, size or difficulty. We put forward the challenge to all government ministries, service providers and private sector to act as a united front to implement and continue to support the agreements and recommendations of this plan, otherwise challenges will continue to plague our nation. To make this belief a strong argument we recommend that policy makers, government ministries, service providers and private sector do the following:

- Policy makers at the highest level must determine whether or not new legislation is required to enforce this plan and other existing plans.
- OOTR must continue its partnership with its stakeholders to implement NETP
- Government response and recovery agencies must work together and seek input from the public on what needs to be done.
- OOTR and stakeholders must implement these agreements by seeking input from local and international organizations to integrate their needs into solutions, and must work with end users to ensure that resources reach all villages and all communities.

- We must educate the public that its way of life, property and safety are at risk if these agreements are not put into effect.
- Village councils and churches must implement these agreements with neighboring villages to ensure they are planning and working together
- Government ministries, service providers, private sector and the public must do their part to own these agreements, commit to them and act on them.

2.2 Purpose of NETP

The purpose of the NETP is to improve the ability of emergency response providers and relevant government officials to communicate in the event of natural disasters and other man-made disasters. It further aims to ensure, accelerate, and attain interoperable emergency communications nation wide. The NETP will be an integral part of the National Disaster Management Plan (NDMP). The Telecommunications Act 2005 ('the Act') mandates the formulation of a strategy to address emergency communications shortfalls. The Office of the Regulator is charged with the responsibility of ensuring that such a strategy is established and efficiently implemented when disasters strike. Also to satisfy section 8(1) (n) of the Act, the Office of the Regulator has been given the authority to make sure that Universal Access programs and arrangements are carried out to serve the interests of subscribers to telecommunications services.. This is also applies during periods of natural disasters where we make sure that telecommunications utilization during natural disaster is effective and efficient and that Service Providers should provide the best service as in provision of their service. As a result the Office of the Regulator is working in collaboration with its stakeholders to develop this Plan. The Plan :

- Identifies the capabilities needed by emergency responders to ensure the availability of telecommunication services before, during and after emergencies, and identify obstacles to the deployment and utilization of Telecommunication Systems.
- Recommends installation of essential interoperable wireless telecommunication systems necessary for the emergency response personnel to effectively respond to incidents of different scales and magnitudes on a regular basis in real time at the scene of an emergency or disaster, maintaining event situational awareness with established command and control structure.
- Clearly describes areas of responsibilities and recommend both short and long term solutions for ensuring and improving coordination between all parties involved.

- Describes the criteria for plan mobilization and sets goals and timeframes for the deployment of emergency telecommunication systems to ensure the continued operation of telecommunication infrastructure.
- Assigns roles and responsibilities for activation of telecommunication alert systems together with its maintenance in order to guarantee that it is working efficiently and effectively before, during and after natural disasters.
- Defines who will be in charge and who will be authorized to activate this plan.

2.3 Scope of the NETP

The National Emergency Telecommunication Plan focuses on the emergency telecommunication needs in every part of the country. Emergency Telecommunications is defined as the ability of emergency responders to exchange information via data, voice and video in any possible way. It will set forth the conceptual structure, key views, roles and responsibilities of the key players during natural disaster. The main aim of the National Emergency Telecommunications Plan in conjunction with other plans is to make sure that emergency response agencies/stakeholders must have a faultless telecommunication system to manage emergency response before, during and after emergencies. This system will be used to establish command & control and function under a common operating figure for a broad scale of natural disasters emergencies. The emergency telecommunications plan consists of the following:

1. The ability of emergency responders to establish and sustain communications with the support of telecommunication systems.
2. The ability of emergency responders to communicate among jurisdictions, disciplines and all sectors of the government, using a variety of frequency bands as needed and as allocated.
3. The ability of service providers and stakeholders to provide the necessary telecommunication warning system needed.
4. The ability of emergency response agencies to maintain communications in the event of damage to or destruction of the primary infrastructure.

2.4 Approaches to Developing NETP

In developing the NETP, the involvement of the public and stakeholders is recognized as a matter of importance. Therefore improving emergency communications with stakeholders is given priority. For that reason, we use the stakeholder driven approach to develop the NETP,

one that includes input from representatives of government ministries, telecommunication providers, NGOs and, broadcasters. These representatives are also members of the National Disaster Council, Disaster Advisory Committee[1] and the Disaster Management Office. This approach is based on the conviction that ownership of the Plan is key and this can only be achieved through the players all being part of developing the plan and further by involving a maximum number of persons a more effective and efficient warning, activation and community alerting system will be produced.

The essential approach is therefore listed below:

[I] Hold a "kick off meeting" to highlight the need for and the objectives of the National Telecommunications Emergency Plan and to sensitise all stakeholders and broader public on the importance of their participation in the consultation process;

[II] Identify and document contact addresses on who the various stakeholder would be for this process;

[III] Collect and collate all existing telecommunications plans for the various agencies or service providers;

[IV] Initiate consultation with the stakeholders on process-

- OoTR develop draft working document for consultation.
- Agree on timeframes for responses to first draft
- Timeframe for Regulator to provide responses and revised draft Plan
- Timeframe for second set of comments on revised draft.
- Regulator to provide Final Draft to be submitted for discussion at workshop.

[V] Prepare a draft Plan identifying the issues and soliciting comments from all stakeholders. Place draft on website and government portal.

[VI] Circulate Draft with specified timeframe for comment.

[VII] Review comments, revised draft and submissions from the parties.

[VIII] Prepare final Draft for discussions at workshop

[IX] Organize Workshop to discuss Final Draft and finalize NETP for submission to Cabinet.

2.5 Organization of NETP

The NETP creates a national vision from a collective perception of all stakeholders and entities to provide an effective and efficient emergency telecommunication approach to natural

[1] National Disaster Council and National Advisory Committee Structure enclosed as Appendix 6

disasters. It sets strategic goals, objectives and initiatives to provide the nation with a more robust telecommunication system. The NETP approach is based on the following three steps.

Step 1	Step 2	Step 3
Define view of the future	Develop appropriate Strategy	Implementation
• Vision • Goals • Capabilities	• Objectives • Initiatives • Milestone	• Coordination • Measurement • Evaluation

2.5.1 The Future

In this first step, the Office of the Regulator and the stakeholders develop an overall vision statement and establish goals to define the desired future outcome of emergency telecommunications. OOTR and the stakeholders will identify the emergency communications capabilities needed and the utilization of telecommunications equipment for emergency response to achieve the goals and vision.

2.5.2 Strategy

Based on the current needs and the available information determined from a survey of all stakeholders, the OOTR developed five Objectives (Section3). These objectives are designed to support the vision. The OOTR will continue to work hand in hand with the stakeholders on the Implementation of the NETP initiatives and the accomplishment of these goals. The OOTR has identified those telecommunication activities that affect this initiative as well as the needs and gaps that have to be addressed. The final aspect of the strategic approach is to recommend National Milestones that will provide timelines and measure the outcome of each initiative.

2.5.3 Implementation

For the final step, OOTR provides guidance for implementation of the NETP and recommendations for measuring success.

2.6 Other Plans and Relevance to NETP

In developing this plan, the OOTR is well aware of the fact that other plans have already designed and implemented as part of the national effort to improve our warning and alert system during national disasters. These plans are incorporated in this draft of the NETP and are listed below.

2.6.1 National Disaster Management Plan (MNRE)

Pursuant to the requirement under Part III of the Disaster and Emergency Management Act 2007, the Ministry of Natural Resources and Environment through its Disaster Management Office (DMO) has established a National Disaster Management Plan (NDMP) which was approved by the Disaster Advisory Committee (DAC) and subsequently by the National Disaster Council (NDC) on 2 November 2006. The NDMP details the "disaster risk management arrangements to ensure sustainable mitigation of, preparedness for, response to and recovery from the impact of hazards." The NDMP is managed by DAC and includes as stakeholders all ministries and organisations which will assist during periods of natural disasters or emergencies.

2.6.2 National Tsunami Plan

Pursuant to section 6.4.2 of the NDMP and in collaboration with the DAC, MNRE has also developed 'hazard specific' plans to address specific hazards which can affect Samoa. One of these plans is the National Tsunami Plan (NTP) which details the mitigation, preparedness, and response and recovery arrangements for tsunamis that affect Samoa. MNRE is the focal point for tsunami warning for Samoa and in developing the NTP, it is the objective of MNRE to ensure that all communities and response agencies are prepared and ready to respond to a tsunami event, assist in reducing the impact of tsunami hazards and assist in implementing a safe and quick recovery after a tsunami event.

2.6.3 National Tropical Cyclone Plan

Similarly, the National Tropical Cyclone Plan (NTCP) has been established by MNRE to detail the mitigation, preparedness, and response and recovery arrangements for tropical cyclones that affect Samoa. As Samoa is prone to cyclones during the wet season, the NTCP is one method of ensuring that at a national level there is in place a plan to address the impacts of this type of hazard.

2.6.4 Other Disaster Plans (Earthquake, Fire, Flooding, Storms, man made events etc)

There are other disasters for which plans are either not available or do not exist. The OOTR will be happy to include these other Plans as they become available in order to integrate into the telecommunication plan that will cover all areas needed for the intended National Emergency Telecommunication Plan.

3. Plan Objectives

The NETP outlines the future vision of national emergency telecommunications status of response before, during and after natural disasters. In doing so, it established solid goals and objectives by which success can be measured. In addition, the objectives presented will be aimed to implement its key activities to improve emergency telecommunications systems. The milestones will provide key checkpoints to monitor the implementation of NETP.

3.1 Vision

The NETP vision is to ensure that telecommunication services are available and continue to be available so that the message can be delivered to the public and to allow emergency responders to communicate effectively before, during and after natural disasters.

VISION

"Adequate Telecommunications services and resources must continue to be available for effective and efficient alerting, management, mitigation and relief operations before, during and after all emergencies and disasters"

3.2 Goals

To work toward the above vision, the OOTR and its stakeholders recognised the importance of providing dates for some goals to ensure that there are agreed timeframes for OOTR and the stakeholders to achieve these objectives. Although not comprehensive, they are set as initial targets which can be expanded further through a process which will aim in improving the telecommunication services when natural disasters strike. It is the belief of OOTR that if emergency responders, stakeholders and all key players train regularly and use emergency telecommunication solutions often in form of drills and exercises, they will be able to use emergency telecommunication services more effectively during actual events. Therefore the first two goals focus on the day to day response capabilities that will inherently enhance emergency response capabilities.

Goal 1	**By 2015, 90% of all high/low risk areas are able to receive warning alerts as soon as the warning is available.**
Goal 2	**In case of disruption of Telecommunications services in the effected areas, Basic/ minimum Telecommunications services must be restored within 24/48 Hours**
Goal 3	**A multichannel digital trunked radio network owned and managed by DMO must be installed by 2014 to provide effective interoperable communications for all Emergency personnel**
Goal 4	**A national single Emergency Calling number e.g. 911 should be installed and commissioned by 2012**

3.3 Objectives, Initiatives and Milestones

The objectives and initiatives put forward will provide national guidance to implement major activities to improve emergency telecommunication responses. Milestones will however provide key ways to monitor the implementation of NETP. The proposed timelines for completing these initiatives will begin with the approval of the NETP by Cabinet. The OOTR will then coordinate development of implementation strategies with stakeholders, private sector organizations, and non-governmental organisation. The NETP identifies the following objectives to improve emergency telecommunications systems for emergency response:

1. Develop and formalize a decision making structure with clearly defined leadership roles for coordinating emergency communications capabilities.
2. Integration and improvement of Service Providers response to emergencies by improving the capability of their Telecommunication Equipment. Improvement will be obtained through standards implementation, research, development, testing and evaluation of the equipment so that the nation will have an integrated preparedness, mitigation, response and recovery capability to communicate during natural disasters.
3. Develop a flexible, robust and community specific national emergency telecommunication warning and activation plan to respond to major emergencies and to recognize the role and importance of telecommunication as an integral tool in emergency response.
4. Provide essential telecommunications facilities for the emergency responders to communicate among jurisdictions, disciplines and all sectors of the government and other authorities/agencies involved in alerting, management, mitigation and relief operations before, during and after all emergencies and disasters.
5. To have accreditation with relevant international Conventions such as the Tampere Conventions and other Conventions that may benefit Samoa.
6. Ensure that adequate and continuous training and exercises/practice sessions are made available to all emergency responders so that they all have shared approaches ,, improved technical expertise and enhanced response capabilities.

3.4 Objective 1 - ***Develop and formalize a decision making structure and clearly define leadership roles for coordinating emergency communications.***

In emergency response, no individual or single entity can be able to be in charge of the emergency response. In such an environment all collaborative planning and development among all sectors of the government is critical for ensuring effective and fully coordinated

preparedness and response. Formal governance structure and leadership are needed to manage these complex systems of people, organization and telecommunication services.

Needs & Gaps to Drive Action

- In the wake of the recent Tsunami that hit the Southern part of Samoa, it revealed that emergency response agencies were not fully aware of their roles and responsibilities. [2]
- There is a need for effective communication and cooperation between different key players, given that the present system is not working as it should.
- Samoa does not have a standardized structure to identify and assess emergency telecommunications capabilities nation wide. Thus it is very difficult for service providers to invest in such project;
- There is no identified location for the housing of an emergency telecommunications centre;
- Many people at all levels do not take this approach seriously.
- There is not sufficient public awareness programs to sensitize people on the importance of having an effective emergency telecommunications plan;
- People are unaware of the structure of the Disaster Advisory committee and there is need to have it understood who the members are and their respective roles;
- Many agencies do not consider communications planning to be a priority and therefore do not want to allocate their resources for participation in planning activities.
- There is a need for the national Disaster Advisory Committee to get more involved in this planning process.

Initiatives and Milestones to address Needs & Gaps.

Initiative 1: Facilitate the development of effective governance groups and designated emergency communications leadership roles and Clearly define who is responsible for the issuance of National Warnings, irrespective of the source of the warning signal and the procedures to be followed;

- Consistent practice sessions for governance and emergency communications leadership across the nation will lead to better equipped emergency response agencies that can make informed decisions that meet the needs of the communities. Establishing representative groups with effective leaderships nationwide will standardize decision

[2] Roles and responsibilities of key players will be identify in section 5.

making and enhance the ability of emergency response agencies to share information and respond to incidents.

Recommended Milestone:

- Within 3 months, (from the date this plan in approved) OOTR and DMO will establish a working committee, that will be used as an emergency telecommunications advisory committee where the different ministries, service providers, NGO and the private sector would be represented. It is agreed that a representative of the OoTR should be the chair of this committee.
    - With the approval of the Plan, to clearly define who is responsible for issuing National Warnings and for the media to be so informed;
    - Within two weeks of the approval of the Plan; notices to be circulated to all media houses indicating clearly the lines of authority in issuing warnings and the processes to ensure expedient and correct warnings being given;
    - Within four weeks of the approval of the Plan the DMO will publish a notice on who has the authority to issue warnings and the process to be followed immediately after the issuance of such properly issued warning;
    - Within 6 months, (from the date this plan is approved) "Emergency Telecommunications Committee" is established with their roles and responsibilities defined.
    - Within 9 months of the Plan being approved the Emergency Telecommunications Committee will prepare a Plan that identifies the system to be used in ensuring timely distribution of information/warning to the populace and including a backup system and the efficient use of existing technologies,(this could include the use of internal portals that provides the information on what is to be done in the event of the disaster);
    - Within 9 months, (from the date this plan is approved) the Emergency Telecommunications Committee will conduct a workshop to provide opportunity for stakeholders and selected participants to collaborate with one another and discuss status of telecommunication emergency approach.
    - Within 12 months (from the date this plan is approved) the ETC will publish a document on the "best practice" for establishing governance groups and emergency communications leadership roles across Samoa.

- **Initiative 2: Develop policies and guidelines that promote the participation and coordination of all people involved, in planning process, joint training and exercises, and infrastructure sharing.**

  The existence of policies that promotes, the coordination and the sharing of resources this will greatly assist in improving the preparation and response capacity of the nation. There is also the possibility of grant funds being made available to facilitate this process and the policies should also consider the management of such funds.

  Recommended Milestones:

  - Within 6 months of the approval of the Plan to ensure that a list of key personnel responsible for ensuring continuity during a disaster is compiled and that these persons are adequately equipped with communications devices to carry out their functions;
  - Within 12 months (from the date this plan is approved) policies are developed that provides guidance on how to best support national interoperability needs through the promotion of shared infrastructure, planning and coordinated governance. This would be coordinated by the OoTR and involve all providers of telecommunications service;
  - Within 12 months, “best practices for sharing of infrastructure”, addressing spectrum issues, and developing agreements among service providers will be completed. The sharing of resources will help in the restoration of telecommunication services. There may be a need for emergency facility sharing, and there should be no commercial or competitive obstacles in place to this for the duration of the emergency.

3.5 Objective 2 – ***Integration and improvement of Service Providers response to emergency by improving the capability of their Telecommunication Equipment through standards implementation, research and development and testing and evaluation in order for the nation to have an integrated preparedness, mitigation, response and recovery capabilities to communicate during natural disaster.***

The emergency responders recognize that no single technological solution can address all emergency telecommunication challenges or satisfy all the required procedures during disasters. The proprietary nature of many communications technologies creates an ongoing challenge to system connectivity and establishing interoperability among them. The presence of wireless data networks, Internet Protocol (IP)-based mobile communications devices, and

location-based commercial services, however, are creating potential opportunities to enhance command and control and situational awareness. Accelerating the development of standards for existing and emerging technologies can address these technology challenges, and therefore improve communications during response operations for when natural disasters strike.

It is also important to note that in ensuring effective communication the source of reliable power is a prerequisite. The power company should therefore an integral member of the process for ensuring continuity in the provision of telecommunications services.

Needs & Gaps Driving Action

- Personnel responsible for designing or obtaining communication systems are sometimes unaware of the status of communication standards.
- Standards development is hindered by the diverse requirements of independent emergency response organizations and agencies.
- There is insufficient information about testing and assessing emergency response technologies, which makes it difficult for emergency response agencies to make informed procurement decisions about technology for use both now and in the future. Even when information is available there is more often limited manpower to carry out such tests.
- State and local government agencies do not consistently participate in standards-making bodies and development processes.
- A common view of existing resources is not readily available or easily shared across local jurisdictions in a way that improves the understanding of the emergency or event
- There is no coordination between service providers .

Initiatives and Milestones to address Needs & Gaps.

- **Initiative 1: Research, develop, test and evaluate new voice, video and data solutions for emergency communications, based on user – driven needs and requirements.**

  Used in conjunction with inheritance systems, the new technologies have the potential to eliminate current technological challenges such as lack of available frequencies and the lack of a emergency frequency allocation. Combining the demands of emergency response agencies during the development of requirements for these emerging technologies will increase the success of the private sector in developing standardized products and services.

Recommended Milestone:

- Within 3 months, a process should be developed for emergency response agencies to collaborate with the private sector to aggregate user requirements.
- Within 9 months, emergency response agencies identify and priorities near term (2-4years) requirements.
- Within 9 months of the approval of the Plan, the MCIT will review the ICT Plan with the view of ensuring the necessary linkages with the NETP exist.
- Within 18 months, emergency response agencies develop, with the cooperation of private sector and other stakeholders, quality of service parameters for the most important near term requirements.

3.6 Objective 3 - ***Develop a flexible, robust and community specific national emergency telecommunication warning system and activation plan[3] to respond to major emergencies and to recognize the role and importance of telecommunication as an integral tool in emergency response.***

It is important that the communities are directly involved in the development of the warning systems and that the role of the service providers in this area recognized as is their obligation to the public and their customers. These customers are the same persons who would be affected by the natural disaster. The OOTR will therefore in collaboration with the communities and service providers plan these systems with the expectation that the service providers will make significant contributions. The power company will also be involved in this exercise and representation would be made to ensure the existence of reliable emergency back up power supplies.

Needs & Gaps Driving Action

- Although there is a system already installed and tested, OOTR realises that it is not working. In the recent events it has a huge impact on the nation as a whole. The limited presence of these emergency telecommunication systems and inefficient use where they exist, can instil a feeling of helplessness and panic in the minds of people, therefore it is vital that a secure and sure emergency telecommunication infrastructure is made available before, during and after natural disaster. Essential communication systems for command centres and near disaster areas should be made available.
- The public broadcast body (radio & TV) can provide up to date information but given the nature of their locations, the information is not always delivered in time.

[3] Warning System and Activation Plan is explained in section4.

- The maintenance and upkeep of these systems need to be funded on a sustainable basis;
- No single entity is vested with the responsibility for these systems;
- There is no integrated system that takes advantage of simple robust technologies like SMS texting, ICT applications, amateur radios etc;

Initiatives and Milestones to address Needs & Gaps

- **Initiative 1: Telecommunication providers to invest in other systems to help deliver the message to the public and their customers.**

  Initiating this plan of installing a more robust system will allow service providers to work together. Sharing / loaning of resources to help with the restoration of telecommunication services will be essential. There may be a need for more coordination from all networks to encourage emergency facility sharing, and there should be no commercial or competitive obstacles in place to this for the duration of the emergency. Such systems should include the application of simple robust technologies like SMS, ICT applications and amateur radio in a coordinated fashion.

  Recommended Milestones:

  - Within 6 months (from the date this plan is approved) Service providers should come up with a design and plan of an appropriate nationwide warning system for use during and after natural disaster. This plan/design will be a capability framework in preparation for installation of the said system. The Plan/design would include the option for a siren system but will consider all other forms for effective communication using simple robust technologies. It will be reviewed during a series of technical action group. In addition, the activation plan of using this system should also make available.
  - Within 6 months of the approval of the Plan, the OOTR in coordination with other stakeholders will develop a design for an integrated simple and robust national warning system that would include costing and recommendations for sustainable funding of such a design;
  - Within 9 months (from the date this plan is approved) Service providers should complete installation of the secure telecommunication system (siren) to allow for nationwide use before, during and after natural disasters.

- Within 9 months, the essential communication equipments for a command centre should be all equipped with the necessary infrastructure.
- Within 12 months (from the date this plan is approved) policies provides guidance on how to best support this national initiative through the promotion of shared infrastructure, planning and coordinated governance and that service providers should have a joint responsibility on the maintenance of this system.

- **Initiative 2: Government will take steps to move towards a single Emergency response number and a unified emergency call centre managed by the office Fire and Emergency department which will receive all emergency calls and distribute to the concerned agency such as police, fire or ambulance etc. This 24/7 call centre will have latest automated despatch capabilities using trunk radio system.**

  Recommended Milestones:

  - Within 3 months (from the date this plan is approved) DMO and OOTR will jointly come up with a plan of an appropriate nationwide Emergency call receiving and dispatch system working on a single number (e.g. 911)
  - Within 6 months of the approval of the Plan, the OOTR in coordination with other stakeholders will develop a detailed design for the single number
  - Within 12 months (from the date this plan is approved) the unified call centre will be installed and commissioned

3.7 Objective 4 - Provide essential telecommunications facilities for the emergency responders to communicate among jurisdictions, disciplines and all sectors of the government and other authorities/agencies involved in alerting, management, mitigation and relief operations before, during and after all emergencies and disasters.

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Needs & Gaps Driving Action

- Present VHF and UHF equipment does not provide interoperability among multiple authorities and agencies that need to coordinate during and after an emergency and disaster.

Initiatives and Milestones to address Needs & Gaps

- **Initiative 1:** Urgently Procure and install a multichannel multi site 800 MHz digital trunked radio network owned and managed by office of Fire and Emergency Services to provide effective interoperable communications for all Emergency personnel to respond in real time by establishing command and control at the scene of an emergency or disaster, maintaining event situational awareness.
- The system will provide for all communications needs of various emergency agencies including fire, police ambulance and other government agencies during normal working times as well as during the emergencies.
- The system will be managed as a Government Radio Network (GRN) and provide routine communications needs of police, fire, emergency medical, highway and road maintenance, forests, and local government with an aim to insure the safety and security of the general public. Under normal situations, the system will be used to provide law & order, maintenance, and provide emergency services and under emergency or disaster situations, they all must coordinate together to respond to the emergency, minimize loss of life & property, disaster recovery
- The system is typically voice-oriented, with some mobile data for the more advanced users and must have enough coverage of the entire area and provide full reliability but should also have direct mode of operation for no/poor coverage areas. The system ensures that all incoming emergency calls are answered and personnel are dispatched via radio

Recommended Milestones:

- Within 3 months, DMO will prepare a detailed plan for procurement and installation of a GRN**.** If necessary assistance from ITU and other global agencies will be sought for designing an optimum solution
- Within 6 months, a cabinet paper should be prepared by the DMO in consultation with OOTR for seeking approval of such a system for use by all government agencies
- Within 12 months from the date of approval of this plan, the multichannel digital trunking system will be procured and installed

3.8 Objective 5 - ***To have accreditation with relevant international Conventions such as the "Tampere Convention" and other Conventions that may benefit Samoa.***

The Tampere Convention or the so called “Life Saving Treaty” has positive implications on emergency response hence the need for acceding to that convention. The ITU encourages member countries to sign on to the Tampere Convention.

Samoa is a member of ITU but hasn’t signed on to the Tampere Convention. Satellite capabilities are the huge part of disaster relief and mitigation in the Tampere convention.

Needs & Gaps Driving Action

- These are services and equipment that may be needed for use in response activities strict import restrictions may exist.
- Allowing equipment importation without proper checking of standards might result in harmful interference.
- The regulatory requirements of Samoa may make it harder for responders to speed up their mitigation activities. For example, the Act specifies that licenses and frequency authorization are required before use of the equipment and the said authorization is to be obtained from the Regulator. In a disaster situation this may present a hurdle to speedy emergency response.

Initiatives and Milestones to address Needs & Gaps

- **Initiative 1: Regulator to waive his powers during emergency, with the condition that equipment brought in by the recognized response agencies comply with established type approvals and operate on the allocated frequencies.**

  Although need for authorizations from the Regulator can slow down the process brining in needed telecommunications equipment , the situation can be made worse if the equipment introduced causes harmful interference with other networks providing telecommunications service. Expedited procedures for type approvals and/or equipment checks by the Technical Staff of the Office of the Regulator should be developed.
- **Initiative 2: Government should waive restrictions on any telecommunications equipment brought into Samoa that would be for the provision of telecommunications services during the disaster.**

  It would be for Government to waive any restrictions on movement of personnel and equipment and would do so when declaring a state of emergency. Government would decide on what constitutes a “state of emergency”, and what sort of restrictions should be loosened or imposed.

Recommended Milestones:

- Within 2 months, OOTR should have a list of all Conventions and Bodies that will be a benefit to Samoa in terms of its emergency help during Disasters.

- Within 2 months, a cabinet paper should be prepared by the OOTR in consultation with stake holders with a recommendation on a possible position in regard to acceding to the Tampere Convention and similar Convention relevant to disaster mitigation.

3.9 Objective 6 - Ensure that adequate and continuous training and exercises/practice sessions are made available to all emergency responders so that they all have shared approaches „ improved technical expertise and enhanced response capabilities.

Some communities have highly trained personnel and comprehensive, documented processes for training while other communities lack this resource. .A standardization of protocols, procedures and accreditation should be in place to establish consistency of skills and operations across Samoa. Training and exercises play a vital role in preparedness, readiness, and proficiency in accessing and using communications capabilities during emergency events. Preparedness is essential to ensuring that interoperable emergency communications equipment is well maintained, operational, and ready for deployment. Achieving appropriate levels of readiness and proficiency ensures that personnel can deploy, set up, and use equipment effectively, both on their own and in conjunction with other emergency responders. Conducting training exercises helps emergency responders understand their role and prepare them to respond effectively to a wide range of emergency events.

Needs & Gaps Driving Action

- In most cases after planning, there is no action
- Most emergency response agencies don't have training policies
- Training exercises have been planned and delivered but responders don't take training seriously.
- Training exercises have been planned and delivered but without evaluation of the results and feedback mechanisms for improving preparedness and response capabilities.
- Training manuals have not been developed.
- Many emergency response have limited number of qualified technical staff to provide support.
- The Private Sector has not been consistently involved in training exercises.
- Fellowships for telecommunication specific training courses and field exercises for emergency responders if available have not been accessed. There is also a lack of coordination with the private sector on training exercises.

Initiatives and Milestones to address Needs & Gaps

- **Initiative 1: Plan, develop and implement national training programs for emergency purposes.**

  Training or simulation exercise programs should be established to convey proper training to all emergency responders who use or manage telecommunication resources. This initiative is aimed on building knowledge and competency during emergency response responsibilities. It should be conducted within agencies, government ministries, service providers and the private sector. Training programs should be comprehensive and address a wide range of events and to build capability for planning, coordinating and implementing in all possible scenarios.

Recommended Milestones:

- Within 12 months, OOTR establishes national level training programs for response personnel.
- Within 12 months, OOTR develops a User Guide manual and ensure that l training materials are readily available for responders.
- Within 18 months, the exercise evaluation trainings programs are reviewed in preparation for release through technical meetings with stakeholders from emergency response exercise community.
- Within 24 months, everyone involved have all been trained and given exercises to enforce training received, training should be staggered over the period to ensure one at the start and others within a six to nine month period;
- **Initiative 2: Provide targeted training to improve skills of technical staff.**

  Technical staff receives formal telecommunication training as well as informal on the job training, however ongoing or refresher training is not the norm. One reason is that technical personnel are busy with daily duties and maintenance activities and have little time for these refresher courses. As a result users who do not rely on telecommunication equipment for their daily activities might be unfamiliar with telecommunication equipment provided during a disaster and this then limits their willingness to fully utilize the equipment. Developing training programs for technical staff will therefore increase and enhance their expertise and increase operational resources.

Recommended Milestones:

- Within 12 months, OOTR develops and disseminates training program guides and a curriculum for emergency communications technical staff.
- Within 18 months, OOTR sources educational and training opportunities to emergency response agencies per requests through technical assistance programs.

4.0 Implementation and Measuring of Achievements

The successful implementation of this plan depends on the commitment of each agency whether a government ministry, service provider or an organization from the private sector. Achieving the set goals and objectives requires coordination from all sectors of the telecommunication community. The successful management of this plan will require effective communication and cooperation between telecommunication providers and government.

4.1 Implementation

Spectrum Management and Technical Division within the Office of the Regulator is designated as the primary agency charged with overseeing the implementation of the National Emergency Telecommunication Plan. In that respective role, SMTD of the Office of the Regulator will monitor the achievements of the recommended milestones and initiatives and will coordinate with the stakeholders in order to achieve the set goals. The Office of the Regulator in collaboration with the providers will provide technical assistance where needed. The SMTD of the OOTR will also report on the progress of the Implementation process and report whether the recommended milestones have been achieved.

Within the first year of implementation of the NETP, OOTR will coordinate with key stakeholders to determine valid measurements for the objectives, goals and initiatives. The OOTR will then be required to provide a status report to the stakeholders. The implementation of this NETP will be a collective effort from all sectors of the government and the key players listed below.

ENTITIES	ROLES & RESPONSIBILITIES
MNRE	• Emergency planning needs to go through the DMO, in dealing with internal and international organizations. • The telecommunications sector needs to fit in with the wider National Emergency Plan for optimum effectiveness and MNRE can look at this.

MCIT	• Provide support and help on ICT issues and assist in coordination.
POLICE and FIRE SERVICES	• key part of the emergency response • First Aid knowledge can be shared from these entities in planning trainings and exercises, drills etc.
SERVICE PROVIDERS	• Plan and collect information about the available equipment needed for the emergency response. • High coordination of service providers before, during and after disaster. • High coordination of Service providers in the activation of the Warning system.
RED CROSS	• Red Cross can arrange for first aid training and provide coordination especially in their field of expertise.
OoTR	• Need to work on coordinating and facilitating service providers' responses. • Need to make available frequencies and resources on an emergency basis. • Assist with ensuring access to emergency facilities where necessary

5.0 Role of Telecommunication in Disaster Mitigation

For the effective implementation and management of the above plan objectives and any national disaster management plan, whether general or specific in nature, there is a need for proper co-ordination and collaboration between all Ministries, Agencies, Corporations, Non-Government Organisations and Communities charged with the responsibility of responding in times of disaster or emergency. Co-ordination will almost always involve overseas authorities and organisations engaged whether through government or other means in rendering assistance to the Government of Samoa during times of disaster or emergency. It is therefore vital for effective response to disasters and emergencies that telecommunications services be available during these times. It is the intention of the Office of the Regulator, working with all stakeholders and through this plan to ensure the improvement, availability and maintenance of telecommunications services during times of disaster and emergency. We recognise the

important applications of telecommunications role before, during and after natural disasters and are listed below.

BEFORE	• Ensure that any equipment, sites, etc. are as earthquake and natural disaster-proof as reasonably practicable, including where possible avoiding areas prone to natural disasters, flooding, exposed to cyclones, etc. • Develop early warning systems able to notify key officials, villages, etc for optimum response. A text can be sent to the base warning them of impending disaster. This text can be pre-agreed with Government, and released on the request of Government. • Identify key services requiring telecommunication services during a disaster event such as emergency services and disaster planning agencies connected, and a plan must be in place for this. • Assist in the evaluation of sites for a central location for an Emergency Control Centre. • Clear identification of early responders (for telecommunications) – a team of technician/engineers available to be deployed where necessary, and of course, where safe. • Inventory of spare equipment which can be utilized among the providers which can be used in the event of failure in the networks, • Clear understanding with Government Agencies for cost recovery during a disaster. It is our view that no party should either profit from or bear an unreasonable financial burden from providing assistance during a natural disaster. It is also important that service providers are not liable for (and

	are not subject to any claim or proceedings for damages) for any act done or omitted in good faith in compliance with any disaster management plan.
DURING	• Maintaining radio broadcasting is vital in keeping people advised of the dangers and advising when danger has passed. This is key to providing updates on government response, emergency response procedures, passing of information, essential info health and safety messages, and updates on the disaster. This has to be in both Samoan and English. It is also important to restore and maintain communications so as to inform and avoid panic amongst the general public. • A Key priority is maintaining connectivity with overseas, whether by satellite, or via the submarine cable. These facilities must be protected to the maximum extent possible in the event that they become endangered as a result of a natural disaster event. If either of these facilities goes down, there must be cooperation between service providers to allow connectivity to overseas to continue to the maximum extent possible. • Services providers must implement measures to manage network capacity to avoid network failure through overloading. • Cooperation between the service providers is essential for quick restoration of service.
AFTER	• Establishing a plan for quick restoration of services in the affected areas. • Essential infrastructure and services in badly affected areas, particularly those without access or

	communications, must be identified. • First responders activated to provide phones and solar chargers to be distributed, as well as generators to affected areas without electricity.

5.1 Preparedness Arrangements

Preparedness activities and arrangements including procedures and measures to prepare the response agencies, communities, public and private sector in order to respond to disaster events once they occur. But total protection cannot be gained through preventive measures alone but also requires coordinated effort from the response agencies. Preparedness activities are listed but not limited to the ones below.

5.1.1 Radio Spectrum Management

Radio Spectrum Management is one of the most important aspects of government's commitment to improve and provide emergency telecommunication resources to be used during emergency response. At the moment frequencies have been allocated to other agencies for emergency purposes. OoTR has since established a common/standard emergency frequency allocation which can be shared between services providers and also pre-approved specific frequency for service operators dedicated use. These frequencies will be strictly use only during emergency/disaster events. These frequencies are presented in the emergency frequency allocation table shown in the National Emergency Allocation Plan presented in **Appendix 3**.

5.1.2 Emergency Alert System and Activation

The purpose of the Emergency Alert System (EAS) is to rapidly circulate emergency information via radio and television to the public who may be impacted by a particular event in the community. EAS is part of the preparedness efforts to compact disastrous events and it may be activated in response to emergency situations such as severe weather, floods, civil disorders, industrial accidents, or any occurrence that poses a danger to life or the public. The purpose of this initiative is to explain the system and provide procedures for broadcasters, service providers, and emergency personnel in this operational area. It provides for immediate alerting of the public so that they may have an opportunity to protect themselves and time permitting their property where possible before impact or provide post impact recovery information where warnings were not possible.

The Emergency Alert system will be nation wide and broadcasters, service providers and radio stations should be able to transmit EAS messages on their channels free of charge. Video interruptions and audio alert messages should be allowed to happen on all channels weather public or private when receiving the alert. These messages should be send to these agencies via Encoder/Decoder Units, where these encoder/decoders are capable of transmitting and receiving coded emergency messages either in manual mode, automatic mode or semi automated mode. Following is an explanation of each mode.

1. **Manual Mode**: The EAS Decoder will only notify the operator on duty at a receiving station of any incoming EAS Alert that it is programmed to receive. The operator must push a button to transmit the Alert on the broadcast station or cable system.
2. **Automatic Mode**: The EAS Decoder will automatically interrupt program audio and/or video with any incoming EAS Alerts the Decoder is programmed to receive. Emergency information will be disseminated even if the station or system is not staffed full time.
3. **Semi-Automatic Mode**: When the EAS Decoder receives an EAS Alert that it is programmed to respond to, it will begin a preset countdown to automatically interrupt. If the Alert does not air by the time the countdown expires, the EAS decoder will automatically interrupt the audio and/or video with the incoming message.

Each encoder/decoder is set up to monitor at least two different sources for incoming emergency messages. The encoder should be located at the Metrological Office who will first detect any warning from their overseas bureau partners. The decoders are to be set up at most of the local radio and television stations. The meteorological staff and DMO will assume the responsibilities for the initial EAS unit programming and station installation. When the system is activated and messages are sent from metrological division and DMO, all participating stations programming should be interrupted shortly after the stations local EAS equipment receives and validate the actual incoming EAS messages. Television stations are encouraged to provide a full screen text summary or video crawl summarising the EAS message, including the originator, event, location and valid time period of the message.

This system should activate only on the authority of the metrology division and the Disaster Management Officer. The activation of the EAS should be limited to an emergency event or situation which poses an immediate or imminent threat to life or property and has the

potential to cause a significant impact on the public or requires immediate public knowledge to seek shelter or take protective actions. Procedures of the Activation is presented in **Appendix 4**

5.1.3 Early Warning System

Developing an early warning system that would be able to notify key officials and villagers for optimum response is vital. In Samoa there is a wide range of mechanisms used in public alerting including electronic broadcast media, television stations, radio stations both in FM and AM bands. Currently, apart from broadcasters and media, Disaster Management Office (DMO) with collaboration with Service providers is using text messages that can be sent to the base warning them of impending disaster. This text is pre-agreed with Government, and released on the request of Government. From recent events text message was found to be unreliable due to the congestion of the network. Therefore there is a plan for another system to use. A national siren system has already been launched and is currently use to notify the public as a whole. The siren warning system is managed by the DMO. The basic communication structure for designing this siren warning system is shown is **Appendix 5.**

5.1.4 Create and Inventory of Resources

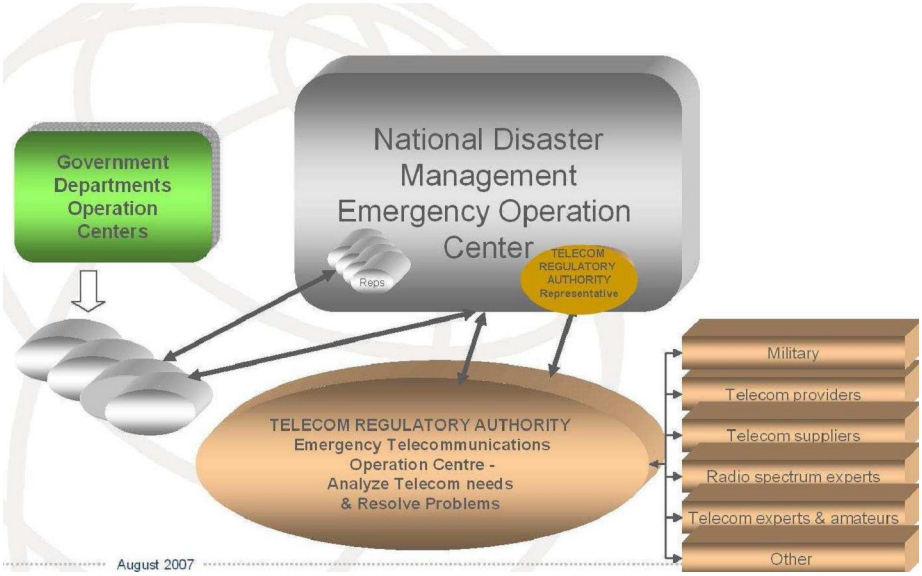
An inventory of spare equipment which can be utilized among the providers for use in the event of failures in the networks needs to be undertaken. Inventory taking is quite important in facilitating the provision of equipment and services in response to immediate needs for operations. The inventory of equipment is listed in **Appendix 6**. The list has been developed from the result of the survey carried out by the Office of the Regulator.

5.1.5 Exercises and Trainings

The DMO and the Office of the Regulator propose to conduct training and training exercises and will seek financial help to support this program. These funds will help achieve the realization of the goals of coordination and interoperability, as systems are developed, deployed and maintained. The training will provide a better understanding of public protection and disaster relief needs, it will also identify potential problems and recommendations for improvements. Drills and exercises are carried out to be in line with DMO's plans. In addition regular meetings and national drills would be essential. A management structure is to be designed providing the line of command and this would assist the implementation process.

5.1.5 Telecommunication Emergency Operation Centre.

In order for Emergency to effectively delivered, a Telecommunications Emergency Operating Centre must be identified. The following model[4] is recommended by ITU.



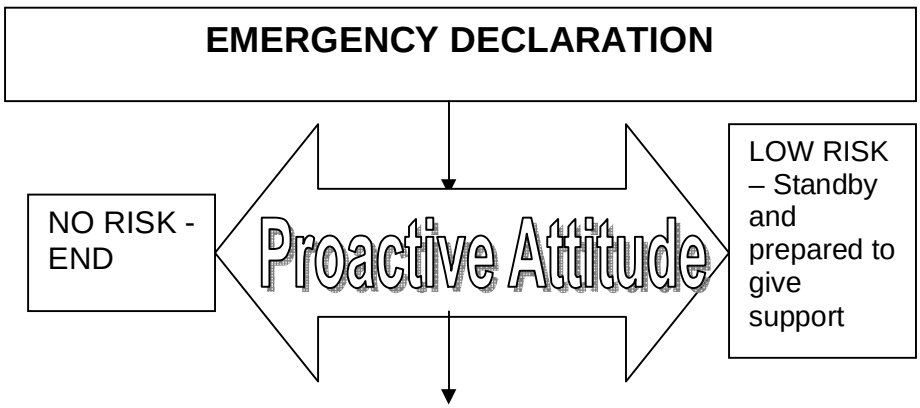
5.2 Response Arrangements

The National emergency telecommunication disaster response requires full commitment on the part of all agencies involved. This is basically to having a pro active attitude towards the response plan. The response plan will be activated during a disaster and will serve as the medium for communication during emergencies and disasters.

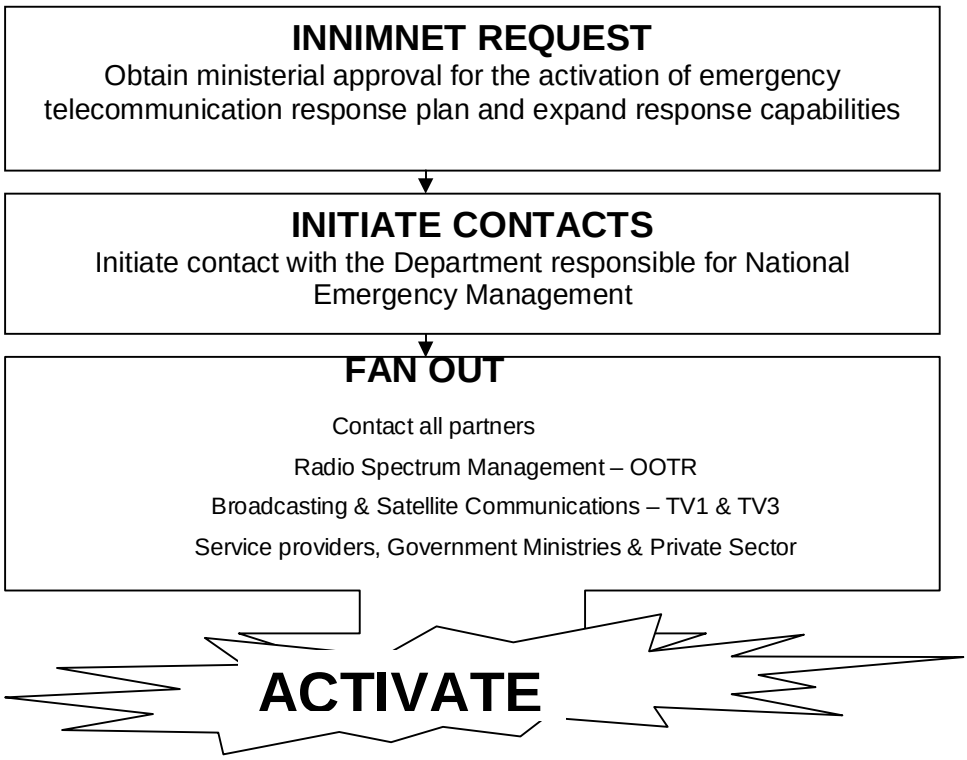
5.2.1 Emergency Declaration

Emergency Declaration procedures should be developed and followed. This declaration request can be in written form and can be requested prior to activation. The Declaration can be viewed and followed using the following flow chart

\Figure 1



[4] Adopted by ITU Model – best practice emergency telecommunications paper.



5.2.2 Emergency Response System – Roles & Responsibilities.

An emergency Response system should be in place to direct agencies to their specific roles and responsibilities. The following are the core roles and responsibilities.

ENTITIES	ROLES & RESPONSIBILITIES
MNRE/DMO	• Declaring that the emergency has terminated. • Notifying agencies of the declaration of the emergency and the termination of the emergency; and • Activating the emergency notification system; • Approving, in conjunction with major announcements and media taken.
OOTR	• Ensuring the members of the Telecommunication emergency agencies are advised of the declaration and termination of an emergency and are kept informed of the emergency situation. • Maintain a communication log of all actions taken.

MCIT	• Ensuring liaison with the DMO regarding security arrangements for the TEC; • As the Operations Officer, coordinating all operations within the TEC, including the scheduling of regular meetings; • Advising the TEC on policies and procedures, as appropriate; • Providing information and advice on financial matters as they relate to the emergency;
POLICE	• Establishing an ongoing communications link with the senior police official at the scene of the emergency; • Providing radio traffic control staff to facilitate the movement of emergency vehicles; • Should be alerting people endangered by the emergency • Ensuring liaison with others like churches and community leaders regarding their responsibilities in relaying the message during emergencies. • Maintain a radio log of all actions taken.
FIRE DEPARTMENT	• Providing information and advice on firefighting and rescue matters; • Establishing an ongoing communications link with the senior fire official at the scene of the emergency; • Conducting all operations connected with the fighting of fires; • Informing the Fire Coordinators and/or initiating mutual aid arrangements for the provision of additional firefighters and equipment for efficient communication if needed; • Determining if additional infrastructure or special equipment is needed and recommending possible sources of supply, e.g. radios, satellite phones, land mobiles etc • Providing assistance to other community departments and

	agencies and being prepared to take charge of or contribute to non-firefighting operations if necessary, e.g. rescue, first aid, casualty collection, evacuation. • Maintain a radio log of all actions taken.
SERVICE PROVIDERS	• Activating and arranging the Telecommunication Emergency Centre; • Ensuring that all agencies have necessary plans, resources, supplies, maps and equipment; • Providing advice and clarification about the implementation details of the Emergency Response Plan; • Addressing any action items that may result from the activation of the Emergency Response • Plan and keeping the Agencies informed of implementation needs; and • Maintaining records and logs for the purpose of debriefings and post-emergency reporting that will be prepared. • Maintain a radio log of all actions taken.

5.2.3 Emergency Telecommunication & ICT Activation.

Telecommunications is vital for all emergency responders during before, during and after disasters. An emergency response plan managed from a national telecommunication emergency operation centre puts into operation the emergency telecommunications plan which include but not limited to the following :

- Provision of advice and the setting of strategic direction mitigating and in responding to the disruptive effects of emergencies on telecommunications services and networks;
- Facilitation of international and inter-governmental relations and telecommunications
- Facilitation in the provision of appropriate telecommunications equipment and/or services to ensure the availability of telecommunications to meet emergency requirements, especially for the PPDR organizations and the telecommunication industry.
- Receipt and analysis of requests for additional radio frequencies, for the use of satellite earth stations or resolve unexpected radio interference problems. Urgent requests made in time of emergency should be attended to without delay.

- Warning systems – The technical responsibility for the development and activation may be given to the emergency telecommunications ministry, but the decision to activate and transmit a message is mainly the responsibility of service providers.

5.3 Recovery Arrangements

Immediately after disaster a recovery plan needs to be activated. This recovery process should involve all agencies and partners to ensure the return to normal operations. Service providers may be asked to assess the damages to telecommunications/ICT networks and their rehabilitation. The following procedures are recommended to the recovery team.

- Establish a command centre for the team.
- All agencies to coordinate and make decisions
- Service providers to lead technical efforts to restore telecommunication systems to fully operate and rehabilitate damaged critical telecommunications infrastructure.
- Ensure coordination with providers of telecommunications infrastructure and services in order to attain synergy.
- Provide expert advice to government with respect to telecommunications infrastructure and other related projects during reconstruction phase.

6.0 Conclusion

This National Emergency Telecommunication Plan is an integral part of the National Disaster management plan. The goals and objectives of NETP cannot be achieved without the support and the coordination of the stakeholders and the response team. NETP enables stakeholders to share a common strategy to compact challenges as a result of disasters and natural events. By taking the actions recommended in this plan will achieve a unified vision through a collective effort to allow emergency responders to communicate as needed on demand before, during and after natural disasters.

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11. US FCC Public Safety & Homeland Security Bureau (http://www.fcc.gov/pshs/)
12. US DHS Safe com (http://www.safecomprogram.gov/SAFECOM/)
13. US Education Resources Information Center (ERIC) http://www.eric.ed.gov/ ; search for “emergency communications”
14. US NTIA Emergency Planning and Public Safety Division http://www.ntia.doc.gov/osmhome/pubsafe/index.html

Appendix 1 – AGENCIES CONTACT ADDRESSES

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Appendix 2 – ACRONYMS

Abbreviation	Full text
CEO	Chief Executive Officer
DAC	Disaster Advisory Committee
DMO	Disaster Management Office (part of MNREM)
ETC	Emergency Telecommunication Committee.
ITU	International Telecommunication Union
MNREM	Ministry of Natural Resources, Environment and Meteorology
MCIT	Ministry of Communication & Information Technology
NETP	National Emergency Telecommunication Plan
NGO	Non Governmental Organisation
NTCP	National Tropical Cyclone Plan
NDMP	National Disaster Management Plan
NTP	National Tsunami Plan
OoTR	Office of the Regulator
ICT	Information Communication Technology
TEOC	Telecommunication Emergency Operation Centre
SMTD	Spectrum Management & Technical Division

Appendix 3 – EMERGENCY FREQUENCY ALLOCATION

Introduction

The Office of the Regulator will allocate and reserve frequencies to improve the ability of DMO communications with relevant organizations and function safely. The Frequencies included in this table are aligned with ITU Radio regulations and ITU World Radio Conference Resolution 646 (WRC-03) on Public Protection and Disaster Relief (PPDR)

The implementation of this plan coincides with the government goal to improve communication for the fast relaying of messages and alerting the community in times of emergencies.

National Emergency Frequency Allocation Table

FREQUENCY	ALLOCATION
1 800-2 000 KHz	AMATEUR FIXED MOBILE except aeronautical mobile
3 500-3 900 KHz	AMATEUR FIXED MOBILE
3 950-4 000 KHz	FIXED
4 438-4 650 KHz	FIXED MOBILE except aeronautical mobile
4 750-4 850 KHz	FIXED Land mobile
5 450-5 480 KHz	FIXED LAND MOBILE
5 730-5 900 KHz	FIXED Mobile except aeronautical mobile (R)
6 765-7 000 KHz	FIXED Land mobile
47-50 MHz	FIXED MOBILE
50-54 MHz	AMATEUR

68-74.8 MHz	FIXED ,MOBILE
FREQUENCY	**ALLOCATION**
75.4-87 MHz	FIXED, MOBILE
137-138 MHz	Fixed Mobile except aeronautical mobile (R)
146-148 MHz	AMATEUR FIXED, MOBILE
150.05-174 MHz	FIXED, MOBILE
174-223 MHz	TV Band III
223-230 MHz	TV Band III
406.1-430 MHz	FIXED, MOBILE except aeronautical mobile
433-435 MHz	AMATEUR
438-440 MHz	AMATEUR
440-450 MHz	FIXED, MOBILE except aeronautical mobile
450-470 MHz	FIXED, MOBILE
698-806 MHz	FIXED, MOBILE, BROADCASTING
806-824/851-869 MHz	FIXED, MOBILE
4940-4990 MHZ	FIXED, MOBILE
5727-5850 MHz	FIXED, MOBILE

The frequency allocation tables of most countries closely follow the international table of allocations. There are exceptions and it is necessary to be aware of, and adhere to, national radio regulations concerning frequencies and their use.

Assignment of specific radio frequencies to radio stations is made by the Office of the Regulator. This is the case for the fixed and mobile services. Amateur stations do not normally have frequency assignments and are free to select a specific operating frequency dynamically within an allocated band.

In some cases, administrations may assign frequencies to services not allocated to those services in the international table of allocations on a non-interference basis. This is provided for in the ITU Radio Regulations **S4.4 and S4.9.**

INMARSAT vs. VSAT

Common telephone and data services are available from land-based satellite terminal systems using the portable International Maritime Satellite (INMARSAT) or the semi-fixed Very Small Aperture Terminal (VSAT) satellite network. These services include voice, facsimile and electronic mail communications.

Any device that works with a common telephone device may be used with these satellite systems. In addition to the above-mentioned services, some satellite terminals offer transfer of digital photographs or live video conferencing.

Frequencies

Radio frequencies should be selected according to propagation requirements, allocation to the service for which they are used and in accordance with licensing regulations.

Emergency Broadcasts over Radio, Television and Cable networks

Radio, television, and local cable systems are primary means to alert the public in cases of potentially dangerous conditions such as heavy rain, hurricanes, tornadoes, floods and other disasters that can be anticipated at least shortly before their impact. Once a disaster has occurred, the same means are, if they remain operational, invaluable tools to inform the affected population about measures being or to be taken.

Broadcasting Frequencies

Frequency	**Allocation**
535 -1 606.5 kHz	AM Audio Broadcasting
88-108 MHz	FM Audio Broadcasting

Appendix 4 – ACTIVATION PROCEDURES

A. Procedures for Meteorological Staff and DMO for activating the Alert System.

Emergency Management Personnel with EAS authorization must follow the procedures outlined below once they have determined that a situation qualifies for local EAS activation.

B. Procedures for Broadcast and Radio Stations

1. Upon receipt of a request to activate the local EAS from appropriate authority, the following will occur in an automated fashion

   Interrupt normal programming

   a. Eight second Attention Signal (853 and 960 Hz tone).
   b. Activation Announcement: example
      "*We interrupt our programming to activate the Emergency Alert system*."
   c. Broadcast EAS Message.
   d. Termination announcement:
      "*This concludes activation of the Emergency Alert System*."
   e. One-second pause (no audio)
   f. Send EAS End-of-Message Code three times (The required amount to release EAS decoders)
   g. Resume normal programming.

TESTS

The following requirements regarding required monthly tests apply to all broadcaster (TV & radio).

Upon receipt of the required Monthly Test, all the broadcasters (radio & tv) re-transmit the Required Monthly Test within one hour, including the EAS Header Codes, Attention Signal, and the Audio Test Message.

Television stations and radio stations should try to provide both audio and video versions of the Required Monthly Test on all programmed channels to ensure EAS messages are accessible to all viewers, especially those with hearing disabilities.

Television stations and radio stations are required to provide either a full-screen text summary or video crawl of the test message. The video message shall identify the Originator (EAS), Event (RMT), Location and the valid time period of the message as provided in the EAS Header

of the message; the video message should also contain a text summary of the Audio Test Message.

Consist of transmitting:

- The EAS header codes,
- The two-tone attention signal,
- A brief test script
    - o Notify the listening audience that you are performing a test of the EAS equipment.
- End of message code.
- A visual display of header code data.

In odd months monthly tests must be conducted in daylight hours (8:30AM to sunset)
In even months monthly tests must be conducted at night (sunset to 8:30 AM)

C. Format of the Required Monthly Test (RMT)

1. Stop regular programming
1. Send EAS Header Code (with RMT event code) three times
2. One-second pause
3. Send eight-second EAS Attention Signal (853 and 960 Hz)
4. Read or send a pre-recorded Audio Test Message:
   "*This is a Required Monthly Test of the Emergency Alert System. In the event of an emergency, this system would bring you important information. This test is a test*."
8. One-second pause
9. Send EAS End-of-Message Code three times
10. One-second pause
11. Resume normal programming

Remote encoders/decoders at the Broadcast sites. All messages sent to these sites must be retransmitted within 15 minutes of receipt.

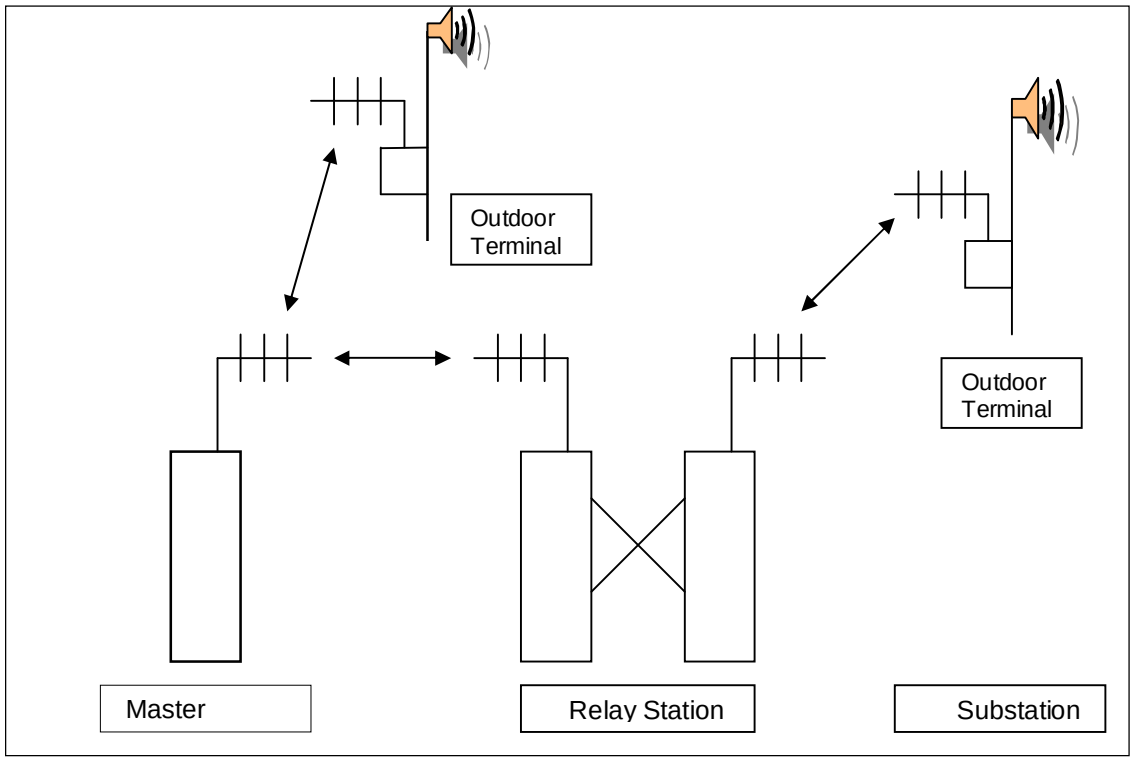
- Failure to receive an EAS test

Monthly Tests

- Determine why no test was received.
- Check the station equipment
- Check the monitoring source(s).
- Document the findings in the DMO logs.
- Take appropriate corrective action.

All broadcasters should be a part of this initiative.

Appendix 5 – BASIC COMMUNICATION STRUCTURE



Master Station
The Master Station is located in the government's office (DMO).
The Master Station sends and receives messages to and from the substations.

Relay Station
The relay station is located in a hilly place to relay radiocommunication signals between the master station and the substations where necessary.
(co-location with Digicel or Gomobile Tower)

Substation
The substation receives messages directly from the Master Station or via a Relay Station.
The substations consist of outdoor terminal controlled by the Master Station.

System Application
Applications associated with disaster relief and emergency operations for public protection are the main focus of the system.

Options
For propagation we may use;

1. Radio Frequency in some areas and
2. Optical Fibre in some areas which ever necessary.

Appendix 5 – LIST OF AVAILABLE EQUIPMENT

The Office of the Regulator regrets being unable to provide a list of available equipment since none of the entities requested are willing to share their list.

Appendix 6 – List of NDC & NAC

National Disaster Council and

Organisation	Representative
Ministry of Prime Minister & Cabinet	Prime Minister, Chairperson
Ministry of Natural Resources Environment & Meteorology	Minister, Deputy Chairperson
[Add here others appointed by PM]	Minister

National Advisory Committee

Core members (Response Agencies as listed in Act)	Representative
Electric Power Corporation	CEO (or nominated representative)
Ministry of Agriculture & Fisheries	CEO (or nominated representative)
Ministry of Communication & Information Technology	CEO (or nominated representative)
Ministry of Education, Sports& Culture	CEO (or nominated representative)
Ministry of Finance	CEO (or nominated representative)
Ministry of Foreign Affairs & Trade	CEO (or nominated representative)
Ministry of Health	CEO (or nominated representative)
Ministry of Natural Resources, Environment & Meteorology	CEO (Chairperson of DAC) Disaster Management Officer
Ministry of Police, Prisons & Fire Services	Police Commissioner (or nominated representative) Chief Fire Officer (or nominated representative)
Ministry of Prime Minister & Cabinet	CEO (or nominated representative)
Ministry for Revenue	CEO (or nominated representative)
Ministry of Women, Community & Social Development	CEO (or nominated representative)
Ministry of Works, Transport & Infrastructure	CEO (or nominated representatives) comprising: Maritime Infrastructure Assets – Building Infrastructure Assets –

	Roads PUMA Civil Aviation Energy
Origin Energy Samoa	CEO (or nominated representative)
Samoa Airport Authority	CEO (or nominated representative)
Samoa Broadcasting Corporation	CEO (or nominated representative)
Samoa Ports Authority	CEO (or nominated representative)
Samoa Red Cross Society	Secretary General (or nominated representative)
Samoa Shipping Corporation	CEO (or nominated representative)
Samoa Water Authority	CEO (or nominated representative)
SamoaTel	CEO (or nominated representative)
Telecom Samoa Cellular	CEO (or nominated representative)
Associate Members	**Representative**
Australian High Commission	Nominated representative
CARITAS Oceania Samoa/ CCJD	Nominated representative
Chinese Embassy	Nominated representative
Foreign Aid Office	Nominated representative
Head Office – European Union	Nominated representative
Japan International Co-operation Agency	Nominated representative
New Zealand High Commission	Nominated representative
Office of the Attorney General	Nominated representative
Samoa Hotel Association	Nominated representative
Samoa Polytechnic	Nominated representative
Secretariat for the Pacific Regional Environment Programme	Nominated representative
Samoa Umbrella for Non Government Organisations	Nominated representative
United Nations Educational Science and Cultural Organisaiton	Nominated representative
United Nations Development Programme	Nominated representative
United States of America Embassy	Nominated representative
US Peace Corps Samoa	Nominated representative
World Health Organisation	Nominated representative
World Meteorological Organisation	Nominated representative

Appendix 7 – COMMENTS ON FIRST DRAFT OF NETP

NETP Consultation Comments 7th December 2009

The following is a summary of the comments received on the first draft of the NETP at the Consultation held on December 7th 2009.

These comments have been addressed in this revised draft

Group 1

- There is a need to establish who is responsible for issuing the National Warning, irrespective of other sources.
- Media outlets must be aware of the need to follow proper procedures and channels. They need to verify who authorizes warnings
- Who is the individual or agency who has authority to issue warning? DMO needs to let the public knows about who has the authority, and what processes are there for issuing the warnings.
- How do people involved in issuing the warning communicate? What is the fall back communication system if the primary communication system breaks down or is unavailable?
- There is a need for an internal portal to identify and set up for communications should the primary system fail. There is the subsequent need for awareness if this portal is set up.
- Need a dedicated communication system with back up system.

Comments on Page 12

- Coverage depends on the nature and type of warning e.g. sirens for Tsunami

Comments on page 13

- Should allocate priority members mobile phones during the disaster.
- NGOs need to be involved (Red Cross was invited but no representative present at consultation)
- Need to approach the Prime Minister personally for him to give his support to this process.
- Need to clarify the roles of NDC, DAC and other bodies.
- Need to improve communications in Disaster Meetings.

Comments on page 14

- Need to include the NGO's in the working Committee
- Need Communications Centre in safe location given vulnerability of Apia on the coast.

Comments on Page 15

- EPC should be part of the forum given communications reliance on the supply of power.
- EPC needs to address power fluctuations that may cause damages to equipment.
- Need to identify alternative emergency power sources.
- Government needs to negotiate with Telcos for implementation of alternative emergency power back ups.

Comments on page 16

- Government needs to communicate and coordinate with Service Providers on ways to improve communications.

Group 2

- Emergency Frequencies should be provided and published by the service providers
- A Siren System is just for Tsunami what about other natural disasters?
- MCIT & MNRE are not present but they are key players of this plan.
- NETP should be included in the ICT Plan

Issues of Objective 3

- Ownership is not just about service providers
- Funding Issues
- What is the government's commitment?
- Who is going to pay for the maintenance of these systems?
- Who is going to get the blame is something goes wrong?
- Who has the overall authority?
- Costing should be included – OOTR should seek assistance for funding
- There should be significant contributions to cover the cost infrastructure and their maintenance.
- Should look at means to improve the SMS warning system
- Current system in place include SMS and Cell Broadcast but back up systems are needed for when primary systems fail.

Issues with Objective 5

- Drills should be divided, one in beginning of the year and one in the middle of the year.
- Technical Terms should be defined
- The nature of the training needs to be explained.

  Needs & Gaps

  Before developing the plan the training needs should be identiified.

  - Should understand the system we have
  - Should train the people who are going to use these systems

Other Comments Made

- Recommended a change of wording of the word **should** in the Vision statement, suggest using the word **"must".** Reckons that **should** is not strong enough.
- Others thought that **must** is too strong, too ambitious.
- Suggestion was also put forward about inserting a foot note on the goals to describe that it should be "depending on the nature of the warning system"…or change the goals according to all kind of emergency services not just Tsunami as the goals sounds like its referring to.
- For Item 3.4 Objective 1 - Suggestion to do a portal to keep and to share all the information needed for the emergency purposes.
- Needs & Gaps of Item 3.4...bullet point 4…Suggest to do Awareness programs, advertisement, drills etc.
- Needs & Gaps of Item 3.4 bullet point 6…Suggest o include the Disaster Advisory Committee structure so that people who read the plan knows who these people are and their roles.
- For Item 3.4 Recommended Milestone bullet point 1. Suggest OOTR to be mediator. Need to draw a structure of Emergency Authority. And to add NGO to the list of people that needed to be in the Advisory committee.
- For Item 3.4 Initiative 2 bullet point 1…suggestion to get all providers involved in the infra structure sharing idea.
- Item 3.5 Objective 2..suggestion to get EPC involved and for them to address the power cut problem.
- Also on Item 3.5 Objective 2..suggestion that Equipment if have any should be moved to secure place.
- For Item 3.5 Needs & Gaps bullet point 6….Suggestion to remove cooperation and replace it with coordination.
- Item 3.6 Objective 3 – Warning system…Question who is going to pay for it?...any funding?
- Item 3.6 Recommended Milestones bullet point 2…Suggest a change from siren system to an appropriate system

Appendix 8 – CONSOLIDATED MINUTES OF FOCUS GROUP MEETINGS

Title: Summary of discussions on the National Emergency Telecommunications Plan (NETP) with focus groups

LOCATION:	Office of the Regulator Conference Room, Apia, Samoa
PARTICIPANTS:	The list of participants arranged by agencies they represent are included in Annex 1
SUBJECT:	The Office of the Regulator in collaboration with MNRE and MCIT is in process of establishing a National Emergency Telecommunication Plan for Samoa and has organized a series of focus group meetings with the various players and stakeholders to discuss the NETP and solicit feedback and comments.
AGENDA	The following agenda was the used in the discussions: **(i)** Welcome **(ii)** Objectives of Meeting **(iii)** Identification of Roles and Functions for various entities **(iv)** Discussion on Structure of Emergency Telecoms Committee **(v)** Review of Questionnaires **(vi)** Follow Up

DISCUSSION	o **Item 1 - Welcome** The Regulator welcomed and thanked participants for attending the meeting and indicated that the main purpose was to ensure full discussion on the National Emergency Telecommunication Plan and to allow focussed discussions. o **Item 2 - Objectives of the Meeting** The objectives for the meeting were explained: the Office of the Regulator had prepared a draft National Emergency Telecommunications Plan (NETP) based on the ITU 'Best Practice' document on the subject, had had consultation with different stakeholders in December 2009 and now wanted to solicit further comments from the various organisations with regard to the NETP. He advised that the ITU would be providing technical expertise to assist in the finalisation of the plan and that the objective behind having small group meetings was to ensure that those involved in the implementation of the plan were familiar with the Plan. There was also the need for agreement on assigned roles and responsibilities under the NETP. o **Item 3 - Identifications of roles and functions of various entities** The Regulator indicated that based on the draft Plan the roles and responsibilities of the various entities was being presented for further discussion and ratification. The Regulator has also explained the need to discuss the Roles and Responsibilities for the key players to ensure that they agreed on their assigned role and responsibilities. This is because there were lack of response and comments from other entities and stakeholders on the proposed plan after the first consultation. **1. Roles and Responsibilities** - MCIT raised the issue that DMO is under MNRE and its important to be clear on the issue of which entity that we should be referred to. This was supported by the representative of MNRE and DMO as he

	indicated that he is representing both DMO and MNRE. Fire & Emergency Services pointed out that although DMO is under the direction of MNRE, they believed that it should be separated. Reason is that from the experience with the recent Tsunami response and mitigation efforts, normally there is a problem of having to listen to two persons rather than one. This can be avoided by having all the emergency issues delegated under the DMO. Regulator considered the idea and indicated that this is a practise in most jurisdictions and it's the best option to avoid miscommunication during disasters. But again emphasised that this will be subject to a collective agreement from all stakeholders. The idea of combining DMO and MNRE was mostly supported by the participants and was then agreed that in future reference, it will be referred to MNRE/DMO instead of MNRE and DMO. - The following was agreed on : - *a.* MNRE –Roles and Responsibilities of MNRE remain as in the proposed plan except to delete *bullet 1 and 2.* b. OOTR –Roles and Responsibilities of OOTR remain except to delete "personal" from last bullet and replaced it with "communication". c. MCIT – *Third bullet* "OOTR" should be replaced by Emergency Telecom Committee (TEC). *Bullet 4* to have this role under the Emergency Telecom Committee. *Last bullet* is to be transferred to MNRE so that it will be inline with the National Emergency Plan of Samoa where major approval of any media announcement should come from MNRE. Shift last bullet from MCIT to MNRE. Digicel suggested that the TEAC be renamed "TEC" to make it an easier abbreviation. d. Police – have *bullets 2,3,6 and 7 r*emoved from the roles of the Police. And in the last bullet to remove the word "personal" and replaced it with "communication".

	Other changes included – • Insertion of word “radio” between “Providing” and “traffic control” in bullet point 4; • Bullet point 5 to be rephrased to reflect a more communications function in terms of alerting people endangered by emergencies; • Bullet point 8 to be rephrased to reflect communications functions only • “personal” be removed from Bullet point 9 and replaced with “radio” to indicate police’s responsibilities in this area. It was noted that the police were in a better position to know what word would be more appropriate and it would remain open to them to replace the word “radio” with a better suggestion if needs be. In addition the police could indicate who would be responsible for it – i.e – “authorised sources” e. Fire & Emergency –delete Bullet Point 3 which was more suitable under the general national emergency plan. The stakeholders also looked at – • Bullet point 4 to be rephrased to reflect telecommunications focus; • Bullet point 5 to be rephrased to reflect telecommunications focus; • The word “personal” deleted from Bullet point 7 and replaced with “radio” There was some discussion on whether there was a need to get authorisation for equipment brought in during an emergency. The Regulator emphasised there was a need to control types of equipment coming in to ensure that frequencies were efficiently managed and interference avoided. The Regulator referred to the Tampere

	Convention which dealt with these issues and emphasised that there was a need for Samoa to adopt this convention for the sake of dealing with such issues. He noted that once Samoa signs onto the Convention, the OOTR could inform the ITU of the requirements to prevent chaos with the overlap in frequency use. He also indicated that the ITU has given their written agreement to help Samoa with its efforts to improve its communication during emergencies. f. Service Providers –the following amendments were agreed to: • Bullet point 1: The Regulator emphasised the need for clarity about what was to be done by the TEC and the role of service providers in achieving those objectives. He noted that the TEC communications centre would have restricted access (only select few would be allowed in the room). The centre needs to be operational in as little time as possible; and those on duty at the centre were to control all messages and communications. The Regulator advised that the idea was to have one authorised source for communications service. For example, if the Prime Minister wanted to get a message to "X", he would contact the emergency centre and the centre would have access to all networks and send the message to the identified recipient. In the background, the Red Cross and Police for example would be using their own systems to contact each other. To fully understand how the plan would work, a simulation exercise must be organised; such exercise would help in evaluating the best way the system should be run. • Bullet points 2: Digicel and SamoaTel have provided comments on the plan which included identification of persons responsible. CSL advised they would complete and send comments to OOTR • Bullet point 4: The Regulator acknowledged that a simulation and debriefing has costs especially with an expert involved. Before any such exercise would be arranged, the OOTR would

	identify the costs and how to access funds to implement the same. • Bullet point 6: There was a real need for people to understand the importance of keeping records during a disaster. The Regulator advised that there were plans to train those who would be responsible for this task. Factors such as having persons to relieve those on duty had been considered and it was likely that those working at the centre would do so in shifts. • Bullet point 7: The need for a communications log was discussed. The Regulator reiterated the importance of continual training for those recording the details in such a log. Fire Service does have a good logging system which TEC could adopt. g. Broadcasters – The Regulator further explained that in the Draft Plan there were no defined roles and responsibilities for the broadcasters and it's basically an oversight in the part of the Office of the Regulator who prepared the initial draft, further compounded by the absence of the broadcasters at the first consultation. He explained that although there was an oversight on this, the Regulator recognised the work and the part that broadcasters play during emergencies and so invited them to draft their own roles and responsibilities and send it to the Office for discussion and possible incorporation into the Plan. - Digicel suggested that the roles and responsibilities for the TEC should be separated out from the main list of responsibilities for the sake of clarity; such a list would include the provisioning of equipment and facilitation and coordination of messages and telecoms emergency requests. Also, the "TEC" was to provide updates at the DMO briefings. The Regulator advised participants to bear in mind that other sources of equipment could be available from outside. SamoaTel questioned the source for the staff to man the TEC. The Regulator advised that that would be considered by

	the Committee but such persons could include representatives from the service providers and perhaps someone from the OOTR. Digicel then suggested that the list of stakeholders be extended to include the Ministry of Health, and other smaller providers such as Pro Com and Pacific Communications who both operated trunking systems. The Regulator advised that the purpose of having the "TEC" was to ensure that issues experienced during previous disasters would be addressed. He noted that the OOTR had requested from the DMO a room at the Faleata grounds which would be set aside for communications purposes. Once the room was officially designated, the appropriate infrastructure would be put in so that in times of disaster, service providers would simply need to plug in to provide communications services. Digicel pointed out that just having a communications room was all well and good but sometimes not always enough. Recent disasters had shown that even where there was equipment donated in the actual disaster access to the equipment was limited because of the fact that the person with the keys could not be found. Additionally there was the case where inadequate power supply made the equipment non-functional. These concerns were noted and it was agreed that the whole idea behind having the NETP in place was that it allowed the "TEC" to have direct access to people in charge of the broader emergency plan – e.g. – MNRE who would be in a position to take the TEC's concerns to Treasury. The TEC would include a representative from MNRE who would act as the TEC's avenue to those who held the purse strings. The Regulator advised that in the absence of a telecoms plan, service providers would have no recourse and as such, it was extremely important to finalise this plan and have it in place before another disaster struck. The TEC would have a control centre which addressed the emergency communications needs.

	After the discussions on the **roles and responsibilities**, participants went through the list of **objectives and the initiatives** associated with each objective as in the National Emergency Telecommunication Draft Plan. **Objective 1** It was acknowledged that there was a need to have a single person identified as being in charge. The nominated official would be submitted to Cabinet for approval and endorsement. It was open to everyone to suggest suitable persons. CSL questioned the structure of the Committee and whether the focus was on organisation or individuals. Some commented that it would be best to leave it at the "roles" level rather than persons. The Regulator advised that the structure envisaged was one where there was a broad committee which included representatives from all stakeholders. Within this broad committee, there would be an executive which would along with a selected Chairman manage the committee's business. Possible suggestions would be the Commissioner of Fire Services, Commissioner of Police or a designated representative plus 3 or 4 others which would include stakeholders representatives. Some stakeholders suggested that an alternative would be to exclude service providers from the policy committee which would leave service providers free to carry out the implementation. The Regulator noted that the purpose behind including the providers on the committee was to allow for an avenue into the specific organisation or company. In addition, service providers were essential in terms of policy formulation as it was on their networks that the committee would depend in times of disaster. The broad committee would then select a smaller working group ('TEC'). It would be wise to have this group as small as possible. Some commented that a coordinator for the smaller group was needed as well as capable personnel to run the centre. There were suggestions

	that the administration people at TEC should be from the OOTR. In terms of relief teams, CSL suggested that the ISPs could have rotations amongst themselves if needed. **Objective 2** In terms of integration, some stakeholders commented that there was a need to educate people that service providers were merely one way of getting the message through to the public, not necessarily the PRIMARY method. This would remove the blame factor from falling on providers when their warning message systems fail to deliver due to faults in their switches for example. Others suggested that campaigns to increase awareness should be included in the plan so as to remove this perception. **Objective 3** The Regulator noted the importance of ensuring a design where people from the community could access information from the Committee. Some providers were concerned about the cost that will inflict on them in relation to implementation. **Objective 4** All agreed that this is responsibility of the OOTR **Objective 5** Before implementing this objective, an exercise in terms of what we need and a cost model in association with those needs must be developed. If it could be done quickly, then the OOTR and DMO could possibly include these items in their respective budgets.

	o **Item 4 – Discussion on Structure of Emergency Telecoms Committee.** The Regulator explained the importance of having in place a proper telecommunications emergency committee to ensure the plan was properly managed. The Regulator further explained that the structure of the emergency committee and deciding who the most appropriate persons to sit on the committee needed to be agreed to by the stakeholders and it was the hope of the Regulator that in having these focus group meetings, there would be some feedback from the stakeholders as to how to achieve this. The Regulator further noted that although the OOTR was preparing the plan, it had no real interest in leading the committee. He noted a need for the head of the committee to be able to speak both Samoan and English and at present, the Regulator could not perform that function. However, the OOTR was open to having a designated representative from the OOTR to be included in the committee if the stakeholders felt that was necessary. The Regulator also indicated that there is support from other stakeholders to have the Commissioner of Police to head the Committee, some also suggest having a representative of the Commissioner to head the committee, The Regulator reminded the Police representative that the Commissioner of Police was responsible for telecommunications emergency plan under the current legislation and suggested that when the Deputy Commissioner briefed the Commissioner on the meeting, he should advise the Commissioner of his role. Also, knowing that the Commissioner is busy, it was suggested that perhaps he could delegate a person to take his role in the telecommunications emergency plan. Some stakeholders express disagreement and suggested that the Commissioner of Fire & Emergency Services may be best to head the Committee given their expertise and training in this area. It was suggested that for the sake of efficient and effective dissemination of communication between the committee and personnel involved it may be best to have the Commissioner of Fire & Emergency Services head

	the committee. This was supported by other stakeholders who said that the nature of Fire & Emergency Services made them more adaptable, suitable and proactive for this role. The point was relayed to the Commissioner of Fire & Emergency Services during their focus group, and he has agreed on the basis that we need to go forward because the plan is long overdue and some proactive action is needed. The Regulator thanks the Commissioner of Fire & Emergency Services, and reiterated that his nomination will put forward to the stakeholders for a collective agreement. It must also be noted that another suggestion was that if the DMO was made an independent entity then they could head the Committee. The role of media and broadcasters was discussed. One suggestion was not to include members of the media in the committee. This was to ensure that information would not be broadcast without authorisation from proper authorities. It was further noted that the DMO is the official communicator for messages during a disaster. If the media was involved at the committee level, there was a risk they would release information obtained at that level instead of letting the message go through the proper channels – i.e. – be released by DMO. It was also noted that whilst there may be a risk of allowing the media in at committee level, broadcasters had infrastructure which could be useful in terms of implementing the objectives of the plan. The Regulator advised that broadcasters had an important role during emergencies and although no specific role had been identified, the meeting with the broadcasters next week would allow the OOTR the opportunity to discuss what was appropriate. Some saw the media's role as implementing a more informal mode of communication – i.e. – using their infrastructure to locate someone for fire or EPC for example which was in a certain area whereas all official communications should be channelled through DMO. The broadcasters insist that at least Radio 2AP representative should be part of the small committee. They also raised the issue of having the local and international media based within the proposed operating centre TEC so that the correct

	information from the source is released to the public and to avoid having different media outlets broadcasting different and incorrect information that then leads to confusion. They also mentioned that this happened during the recent Tsunami and it makes their work inefficient. Some stakeholders commented that during the tsunami most broadcasters were broadcasting messages received from individuals who had themselves received txt messages on their mobile phones and it in some ways created chaos. The Regulator stated that a good way of dealing with this problem would be to include broadcasters in the formulation of policy so that they understood why things are done a certain way. The comments were noted and would be included in the minutes to be forwarded to all stakeholders.
	o **Item 5 – Review of Questionnaires** The Regulator pointed out those questionnaires had been sent to the different stakeholders for completion. He noted that many of the stakeholders had not completed the questionnaires and suggested that it would be easier to have those stakeholders contact the Manager of Technical Services for assistance in completing the same. Questionnaires have been sent to everyone and there should be no excuse for not filling the questionnaires. It was also acknowledged that some stakeholders had already filled out their questionnaires and returned them.. These stakeholders are Red Cross, Digicel and SamoaTel

	o **Item 6 – Follow up** The Regulator advised that a further stakeholders meeting was to be organised for later in the year (August mentioned as a possible date). It was the hope of the Office of the Regulator that after meeting with the focus groups, the NETP would be finalised and presented at the next stakeholders meeting. The finalised version would then be prepared and submitted to the Minister and subsequently to Cabinet for approval. Stakeholders were also reminded to fill in the ITU Questionnaires as they were need for finalising the NETP.
CONSLUSION	The Regulator provided a summary of all matters discussed and reminded the participants that minutes of all meetings would be consolidated and forwarded to all parties by Friday 6th August 2010. The Regulator would write all stakeholders and indicate a proposed date for the next meeting with all stakeholders. In that letter, details of the ITU expert would also be provided. In addition, as discussed, service providers needing advice on the review or formulation of their internal emergency plans will be asked to specify their needs in advance so as the ITU expert may address the same during his time here. IN terms of the plan, the OOTR will as discussed finalise the draft and present it at the general stakeholders meeting so that a finalised version could be submitted to the Minister and Cabinet for approval. The Regulator thanked all stakeholders for attending the meeting and for making useful comments which would be incorporated into the revised draft.

LIST OF PATICIPANTS OF FOCUS GROUP MEETINGS

Focus Group 1 – Policies (MNRE, DMO, MCIT)	**Monday 19th July 10am**
Mr Tuaimalo Asamu Ah Sam	CEO - MCIT
Mr Letoa Matini Faasino	ACEO – 2AP
Mr Peseta Leuelu	Principal Officer - MCIT
Sala Sagato Tuiafiso	Principal Officer - MNRE
Donnie De Freitas	Regulator
Unutoa Auelua – Fonoti	Manager – Technical Services OoTR
Focus Group 2 – Response (Fire, Police, Red Cross)	**Wednesday 21st July 10am**
Ms Namulauulu Tautala Mauala	Secretary General – Red Cross
Mr Leaupepe Fatu Pula	Deputy Police Commissioner
Mr Filo Reti	Communication Officer - Police
Ms Tooa Samuelu	IT Manager - Police
Donnie De Freitas	Regulator
Elisa Kohlhase	Legal Counsel - OoTR
Tuuaga Aviata	Principal Officer - OoTR
Focus Group 3– Service Providers (Digicel, SamoaTel, CSL)	**Friday 23rd July 10am**
Ms Laeimau Oketevi Tanuvasa	General Manager - CSL
Mr Alex Abraham	General Manager - Digicel
Mr Ioane Okesene	Manager Legal - SamoaTel
Mr Asolima Leapai	Chief Engineer - SamoaTel
Mr Aloivaa Sua	Team Leader, Assets - SamoaTel
Donnie De Freitas	Regulator
Elisa Kohlhase	Legal Counsel - OoTR
Tuuaga Aviata	Principal Officer - OoTR
Focus Group 4 – Broadcasters (SQB,TV3,Talofa FM, 2AP)	**Tuesday 27th July 10am**
Ms Galumalemana Faiesea Matafeo	General Manager - SQB
Mr Letoa Matini Faasino	ACEO – 2AP
Donnie De Freitas	Regulator
Unutoa Auelua - Fonoti	Manager Technical Services - OoTR
OoTR & Fire Service	**Monday 26th July 10am**
Mr Seve Tony Hill	Commissioner – Fire Services
Mr Mamea Samuel Ieremia	ACEO – Fire Service
Mr Anitipa Lesa	Engineer – Fire Services
Donnie De Freitas	Regulator
Unutoa Auelua - Fonoti	Manager Technical Services - OoTR