

Emergency Telecommunications initiatives for Disaster Management in Maldives

ITU/ESCAP Disaster Communications Workshop,

12 – 15 December 2006, Bangkok, Thailand

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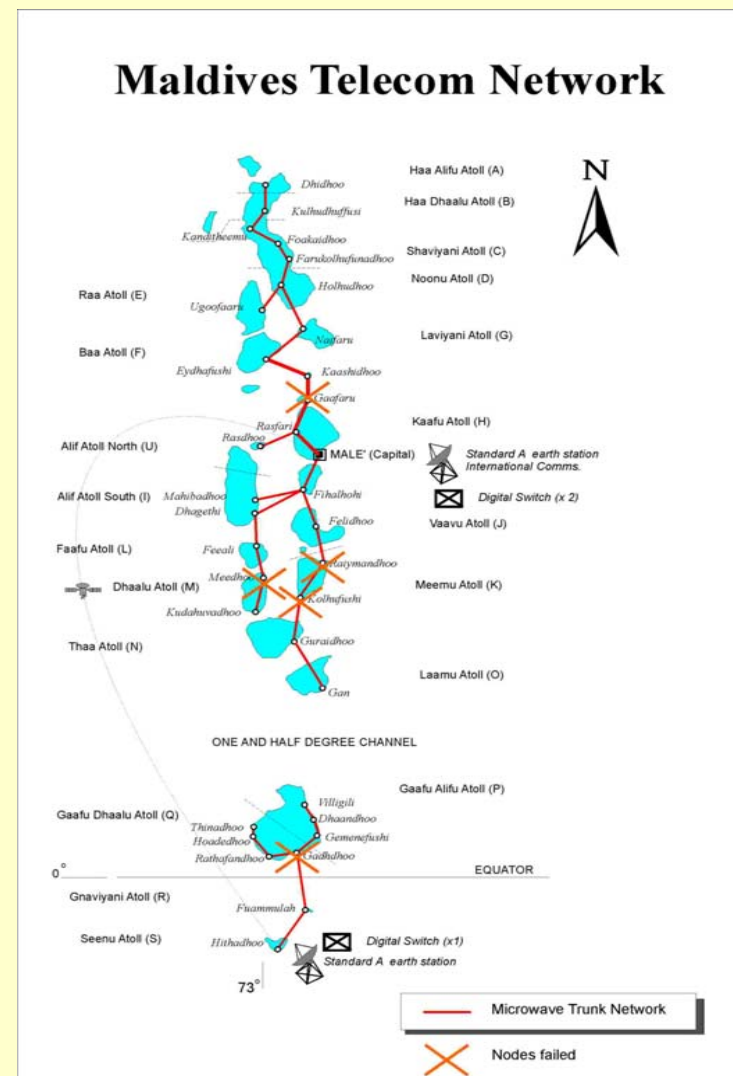
Telecom Infrastructure

Microwave transmission network
(37 nodes serially connected)

Backup facilities at critical nodes

3 Switches

2 Earth Stations



Damage to Telecom Infrastructure during tsunami

5 major nodes affected

Service disruption to 13 Atolls
(163 islands)

Power systems and batteries
destroyed

Damage to radio equipment

Shelters destroyed



Kolhufushi Booth



Gadhdhoo site boundary destroyed

Wataniya Telecom Network

2nd GSM Service provider

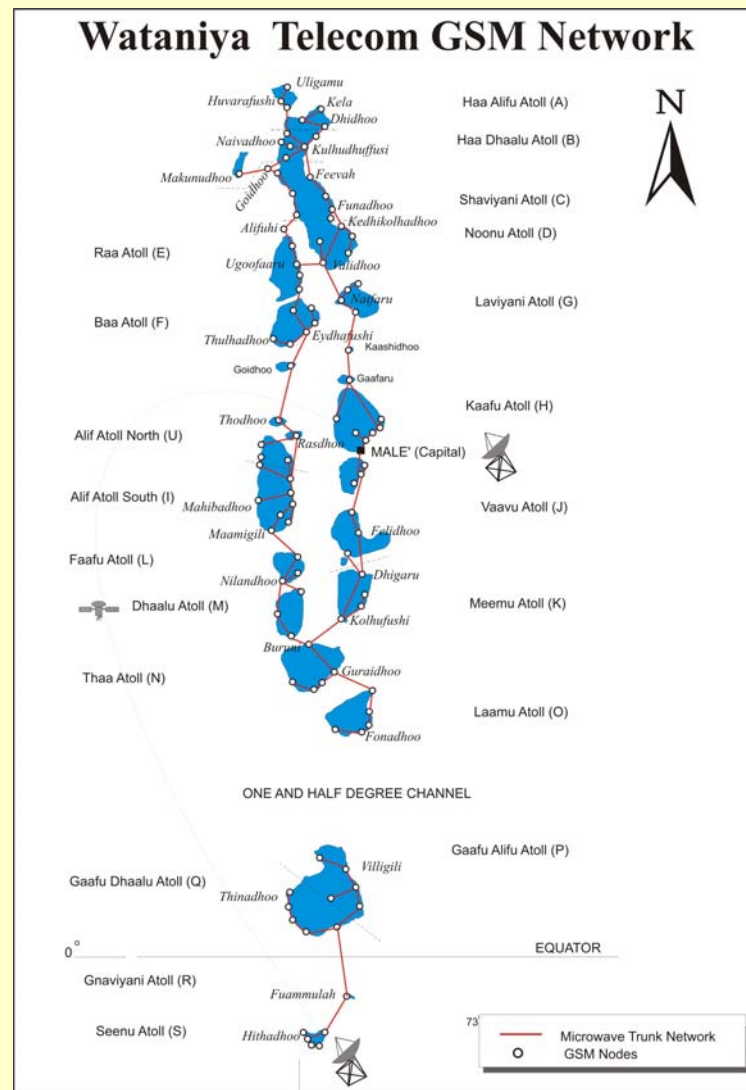
Licence on Feb. 2005

Service launched Sep. 2006

Ring network

Gives more resilience

Independent network



Natural Disasters in Maldives

- Earthquakes and distant Tsunami
- Thunderstorms
- Flush Floods
- Tidal Waves
- Tornadoes or waterspouts
- Prolonged dry periods
- Strong winds
- Indirect affects of Cyclones

Emergency Telecommunications initiatives

- **Establishment of a technical committee
“Technical Committee on Early warning and
Emergency Telecommunications”**
- **Formulations of “National Plan on Early
warning Dissemination and Emergency
communication”**

Emergency Telecommunications initiatives

- **Emergency alert via broadcasting (EAB)**
- **Use of bulk SMS on mobile network**
 - Radio Trunk Network
 - Establishing contact with the Regional EOCs
 - Officials are manned 24/7 basis in:
 - All atoll offices
 - All island office
 - Resorts and Airports

Emergency Telecommunications initiatives

- **Priority calling and national roaming**
- **Construct Emergency Communications network**
- **Maintenance of existing communications equipments (HF, VHF, CB)**
- **Establishment of National Emergency Operating Center**

Emergency Telecommunications initiatives

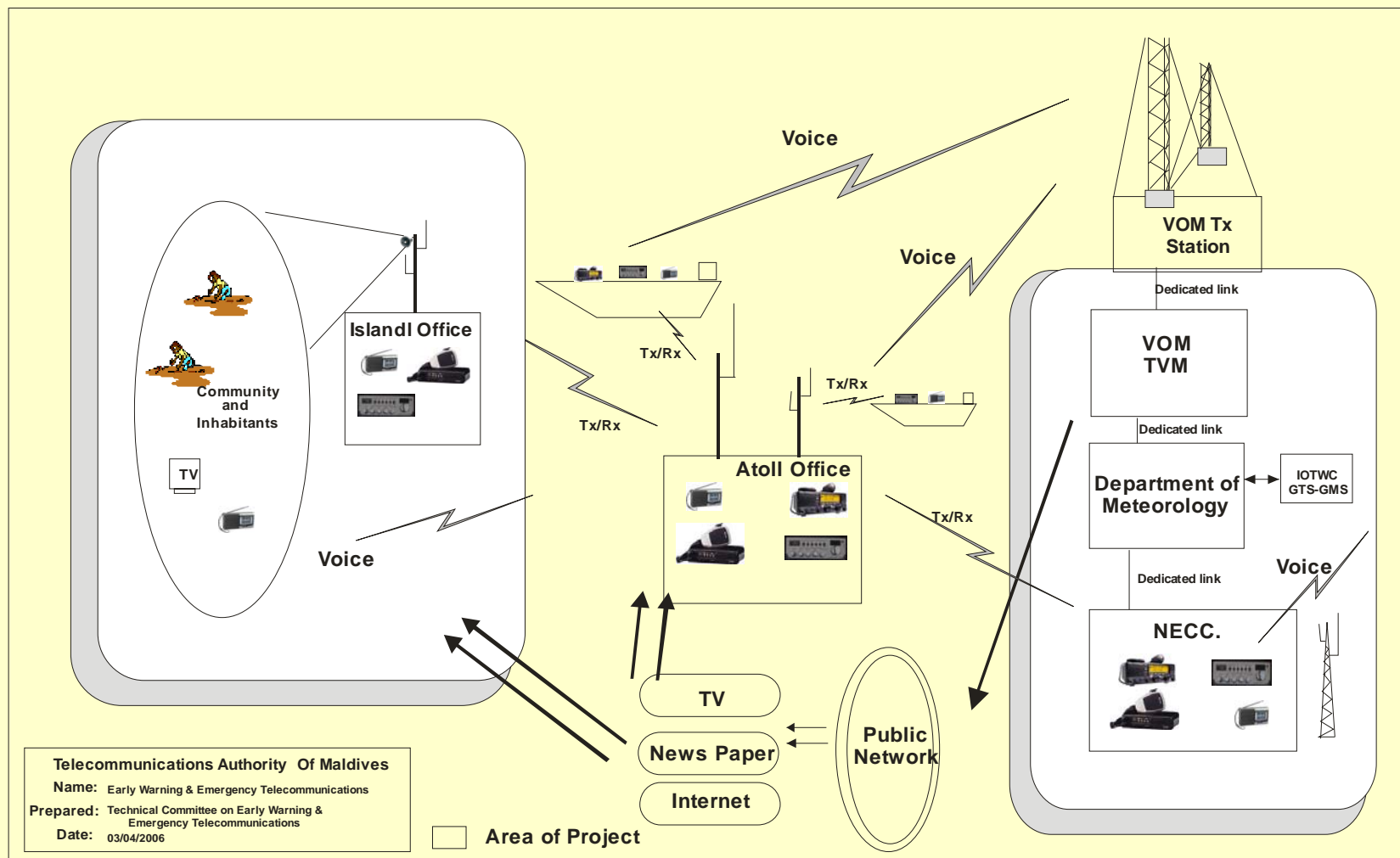
- **Regular communications drills**
- **Inclusion emergency communications in nations curriculum**
- **Conduct awareness programs**

Disseminations of Warnings

Hotlines had been established between

- National Meteorological Center
- Ministry of Defense
- T.V Maldives
- Voice of Maldives

Emergency Alert via Broadcasting (EAB)



Licensing of Satellite Phones

- **We have licensed satellite phones**
 - **For emergency use only**
 - **One phone for each inhabited island**
 - **One for each Resort and Airport**

SMS use in Emergency

- **We have 2 GSM service providers**
 - **Cell Broadcast for a specific area/group**
 - **immediacy, mobility and affordability**
 - **Effective channel for crisis management**
 - **Key means of alerting**

Establishment of digital TETRA Networks

➤ Maldives Police TETRA Systems

- A Dimetra (Digital Motorola Enhanced Trunk Radio)
- At end 1st phase it will cover 42 locations

➤ MNDF (Maldives National Defence Force) TETRA Systems

- A Tetra systems
- 1st phase covers 500 users

Preparation of National Roaming and Priority setting in GSM Network

➤ We have 2 GSM Networks

➤ National Roaming at the times of an emergency

➤ Priority for those who are working during emergencies

Thank You