

**STANDARD OPERATING PROCEDURES
FOR
ESF # 1 COMMUNICATION
UTTAR PRADESH**

**SUBMITTED TO
UTTAR PRADESH ACADEMY OF ADMINISTRATION & MANAGEMENT
SECTOR-D, ALIGANJ, LUCKNOW**

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PREFACE

Standard Operating Procedures for ESF # 1 Communications has been developed primarily on the basis of the data made available/ not made available by the concerned agencies.

The draft report is, thus, largely conceptual in tenor, content and approach. A more focussed and matter of fact Standard Operating Procedures for ESF # 1 Communication is definitely possible. However, to hone up the draft SOP into a more pointed document would call for a very specific set of data input on various aspects of communication resources available with the State Police Communication Network, Defence Communication Network, BSNL Network and other Government agencies for emergency communications. We recognise that the data is sensitive in nature and the reluctance of agencies in sharing the information is understandable. However, the obvious data gaps in SOPs can be filled by SDMA / Relief Commissioner's Organisation through inter agency co-ordination at government level.

In fact, we at IMG started to work on the assumption that the critical data on communication resources available with concerned agencies would be made available to us by the Home Department, Government of Uttar Pradesh, BSNL and Central Command Headquarters at Lucknow. We contacted officials of the Department of Home, Government of Uttar Pradesh, UP Police, BSNL and Defence. However, the officials expressed their inability to share information with us on the grounds of confidentiality and sensitivity. It was suggested that a session should be organised officially at UPAAM with the officials of state police department, BSNL, and Central Command (Defence). We requested to UPPAM to this effect, however, they expressed their inability to organise such a session. Our quest was brought to a halt on August 4, 2009 by Shri Mahesh Gupta, IAS, Home Secretary, Government of U.P., during the presentation of Disaster Management Plan before the officials of Home Department. We were advised in no uncertain terms that the government agencies could not share classified/ sensitive data with the consultants.

It is in this backdrop that the SOP has been developed. We now present the Draft SOP for ESF # 1 Communication with a sincere hope that the document will be critically examined and commented upon by the expert committee. The valuable suggestions from experts shall enhance greatly the value and usefulness of the final document.

EXECUTIVE SUMMARY

The basic inputs for the document are the HPC Report, the provisions of the Disaster Management Act; guidelines and executive instructions on the subject issued by MHA, and other such instructions issued by GoI or GoUP, existing systems / mechanisms and instruments for DRM. This document lays down operational guidelines for the ESF. It has been prepared by interacting with only some of the departments/agencies that have a role in this ESF; reviewing various existing SOPs; understanding the current operating procedures and practices and discussions with Academy staff and functionaries of GoI-UNDP project on DRMP in UP.

The HPC constituted by GoI has identified 14 support functions to accomplish the tasks in responding to an emergency situation. One agency, based on its authorities, resources and capabilities, HPC envisaged, would be the primary agency for one ESF. Primary agency would be responsible for managing activities falling under its ESF and would ensure that the mission is accomplished.

Communication implies transfer of information from one point to another. In emergency management context there are two important and distinct types of communication - transfer of information required for emergency management operations and dissemination of information for alerting the population at risk. The first type of communication would take place between the emergency responders, and the second between the State and the public.

This ESF does not cover public information, which is clubbed ESF #13 Media. The essential responsibility of this ESF can be summed up as to have in place necessary physical assets and procedural infrastructure for ensuring correct and timely communication of all information related to the emergency to everyone who needs to know, particularly to the Emergency Operations Centre (the central crisis command). The communication system for responders should have the following characteristics:

- The system must be available during *abnormal times*,
- It should be reliable – must actually deliver information during trying circumstances.
- The system must be audience specific
- It must be secure

The messages through the system should be timely and usually action oriented, i.e. the messages must suggest actions required for managing the threat. *The key responsibility of this ESF is to meet the communication needs of disaster management.*

Primary Agency: The Primary Agency (PA) for this ESF, as described in UPAAM's mandate letter is "the Relief Commissioner's Organization". Relief Commissioner heads the Department of Revenue (Scarcity). DRS also look after disaster management in the State and the State Control Room (SCR) forms part of "the Relief Commissioner's Organization". Relief Commissioners' functions include:

- Supervision and follow up of relief works in the State,
- Operation of the State Disaster Control Room,
- Develop policies for disaster management and
- Act as the Nodal Agency for the UNDP Disaster Risk Management Project.

Support Agencies: The following have been identified as Support Agencies: Indian Meteorological Department (IMD), Department of Technology (DoT), Department of Electronics and Information Technology (DEIT), Police, Department of Irrigation, Department of Power, Department of Revenue and Army. The support agencies bring complementary resources to the ESF.

Emergencies & Information: Information need during an emergency multiplies manifold. The standard approach is to have a crisis command centre. All information are communicated to this hub for central processing, which gives it perspective and enables the responders to take appropriate decisions. Often full secrecy may be needed to be maintained in communications related to disasters – at least to man made disaster. Thus the structure of communication among the responders during an emergency should have the following features:

1. Communicate all relevant information available at the time
2. It should be centrally processed and therefore should be sent to the central crisis command; if any message needs to be sent immediately to some other agency, a copy of that must be marked to the central command, and
3. A complete log of communications made during the emergency should be maintained

Communications Problems in Disasters: Communication can get people to work together toward a common goal. Frequently, what are perceived as communications problems are actually coordination problems in disguise. Disasters pose unusual demands for *inter-organizational* coordination. For this reason, a substantial portion of disaster communications problems are related to the *exchange of information among different organizations*. Studies on disasters suggest that many communications problems are "*people problems*". An example of "people" problems in communication is the "Robinson Crusoe syndrome" - "we're the only ones on this island." *Organizations are accustomed to operating autonomously and fail to change this approach in disasters where multiple organizations are involved and are dependent on one another*. Peoples problems can be overcome by developing trust, by eliminating any pre-existing differences and by getting to know about how other agencies function.

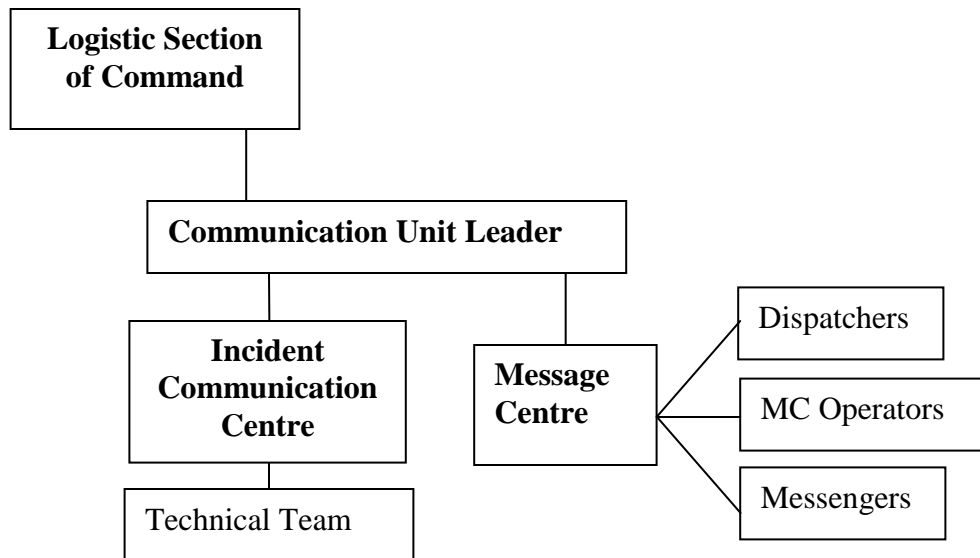
Technical Aspects of Communication Difficulties: Floods, sabotage, and earthquakes are all capable of toppling antennas and interrupting normal electrical power. Effective disaster preparedness requires that essential communications equipment have sources of back-up power. Besides loss of function, there are other technical problems in inter-organizational disaster communications. For instance, assignment of different frequency bands to different organizations (for example to Police and Army) make communication between the two systems very difficult.

Objective of these SOPs: The SOPs provide emergency communications support for use in disaster situations; and also provide for the receipt and dissemination of emergency notifications. Thus, the SOPs will serve as a basis for planning the coordination of communication assets in the State and lay down the procedure for rapid alerting and warning local officials of an impending or occurring disaster. The SOPs will also lay down the procedure for organizing, establishing, and maintaining the communications and information system to meet the operational requirements and ensure that the emergency management teams has accurate and timely information.

Scope: The scope of this SOP is to describe the overall communications and warning systems employed by the State Disaster Control Room prior to, during and after a disaster or emergency situation.

Situational Assumptions: The following means of communication are / will be available in the State: Land line and cellular telephones, Police wireless system, Internet connectivity, High speed broad band connectivity between State capital and district headquarters enabling video conferencing, Satellite phones with Irrigation department for certain pockets, hot lines with Power department for certain centres, ham radio operators, Private telephone network of Indian Railways, Radio network of Army and CUG mobile service coverage of Police and Revenue department functionaries. In a major disaster – earthquake, floods, communal riots, etc it is feared the usual means of communication may not be available. It is however, expected that the Army may roll out emergency radio network covering the affected areas.

Concept of Operations: For managing any emergency, a communication centre, called Incident Communication Centre (ICC) shall be established to give system support to communication process. In addition to ICC another facility Message Centre will be required



to receive, transmit and record messages. ICC and MC will be headed by the Communications Unit Leader (CUL), who will report to the Incident Commander and will be responsible for developing plans for the effective use of available means of

communications. CUL shall be designated by the PA. ICC will serve on round the clock basis during response operations. It will maintain live channels of communication with local governments and also the Central government. It will coordinate with all agencies engaged in response operations. ICC will a permanent facility. These SOPs provide for its creation and assess its requirements of staff and other resources.

These SOPs assume the following **Principles of Communication**

- (1) All communications from field shall be made to SCR / EOC
- (2) All communication shall be confidential until the IC decides to make it public.
- (3) Wherever possible, agencies reporting from fields shall make use of computers (IP).
- (4) Different agencies will / may interact directly with each other and keep CR posted

The SOPs also suggest guidelines for radio discipline.

At present SCR are linked with District Disaster Control Rooms by ordinary telephone lines. For effective communication during emergencies, State needs to establish a V-SAT network linking the SCR with divisional and district headquarters, and a VHF radio network linking district headquarters with sub-divisional and Taluka headquarters.

SOPs provide detailed procedures to be followed by the PA and the SAs of ESF Communication

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List of abbreviations

CU	Communication Unit
CUL	Communication Unit Leader
DEIT	Department of Electronics and Information Technology
DIPR	Department of Information and Public Relations
DM	District Magistrate
DMA	Disaster Management Act
DMP	Disaster Management Plan
DoT	Department of Telecommunication
DRM	Disaster Risk Management
DRS	Department of Revenue (Scarcity)
EAS	Emergency Alert System
EOC	Emergency Operations Centre
ESF	Emergency Support Function
GoI	Government of India
HPC	High Powered Committee
ICC	Incident Communication Centre
IMD	Indian Meteorological Department
MC	Message Centre
MCV	Mobile Communication Vehicle
MHA	Ministry of Home Affairs
NCCM	National Centre for Calamity Management
NIDM	National Institute of Disaster Management
PA	Primary Agency
SA	Support Agencies
SCR	State Control Room
SDMA	State Disaster Management Authority
SOP	Standardised Operating Procedures
UPAAM	UP Academy for Administration and Management

Chapter 1 Introduction

1.a About this Document

This document, laying down the SOPs for ESF # 1 Communication has been prepared as a deliverable, vide, UPAAM letter no 258 dated the 22nd June 2009. The basic inputs for the document are the HPC Report, the provisions of the Disaster Management Act; guidelines and executive instructions on the subject issued by MHA, and other such instructions issued by GoI or GoUP, existing systems / mechanisms and instruments for DRM; and the expected financial and non-financial resources available from Central and State Government as also external agencies. The SOPs are built on the topography, historical background of the vulnerabilities of UP, and the existing governance structures. It has also drawn inputs from the generic SOPs prepared by NIDM.

This document lays down operational guidelines so as to provide comprehensive inputs for the ESF; depicts intra-departmental layers & organic links for coordination, both vertical & horizontal interaction; shows inter-departmental coordination between concerned line departments; provides stage-wise activity flow (vertical and horizontal –simultaneous & sequential); identifies triggers that would set off chain of activities of agencies / players concerned; enunciates agency-wise obligations; gives a checklist of activities for pre (prevention/surveillance / warning / mitigation), during (rescue & relief) and post-Disaster (rehabilitation & resettlement) Action Plan; and also gives such references as would be required for carrying out the procedures.

It has been prepared by interacting with *only some of* the departments/agencies that have a role in this ESF; reviewing various existing SOPs; understanding the current operating procedures and practices and discussions with Academy staff and functionaries of GoI-UNDP project on DRMP in UP.

1.b Standard Operating Procedures for Emergency Support Functions

The first articulation of Emergency Support Function (ESF) in India, as of many other concepts related to disaster management, was made by the HPC constituted by GoI with

Shri J C Pant as Chair. HPC has observed that managing an emergency situation requires accomplishing diverse tasks simultaneously and identified 14 ESFs to accomplish these tasks while responding to an emergency situation. HPC envisaged that in the immediate aftermath of a major disaster (emergency situation), the EOC / NCCM would take stock of the situation and identify requirements and mobilise and deploy resources to the affected area to assist the State in its response actions under the fourteen ESFs.

One agency, based on its authorities, resources and capabilities, HPC envisaged, would be designated as the primary agency for one ESF. This agency in Centre would coordinate directly with its functional counterpart State agency to provide the assistance required by State. The designated primary agency would be supported by one or more support agencies (secondary agencies). Primary agency would be responsible for managing the activities falling under its ESF and would ensure that the *mission is accomplished*. The primary and support agencies would *have the authority* to execute response operations to directly support the state needs. HPC, however, did not identify the primary agencies for each ESF, it did name though the ESF's and listed *some responsible agencies*.

S40 of the Disaster Management Act stipulates that the DMP of every department of State Government shall lay down, inter alia, “the roles and responsibilities of the department of the State in the event of any threatening disaster situation or disaster and emergency support function it is required to perform” as also the “present status of its preparedness to perform such roles or responsibilities or *emergency support function*”.

The Status Report on Disaster Management in India, released by MHA in Aug 2004, has observed (para 4.10): “It is seen that the relevant departments start constituting teams/mobilizing resources only after the crisis/disaster has struck, leading to delays. The relevant departments/agencies have been asked to draw up Emergency Support Function (ESF) Plans and constitute response teams and designate resources in advance so that response is not delayed. Ministries/ Departments have drawn up their ESF Plans and communicated it to MHA. States have also been asked to take similar steps. Similarly States have been advised to finalize pre-contract/agreement for all disaster relief items so as to avoid delays in procuring relief items after disaster situations.”

At another place the Status Report describes the objectives of Standard Operating Procedures (SOP) as “making the concerned persons understand their duties and responsibilities regarding disaster management at all levels”. It prescribes that all departments and agencies shall prepare their own action plans in respect of their responsibilities, under the standard operating procedures for efficient implementation.

It appears that SOP mentioned in the Status Report is general SOP and not SOP for ESF, which seems to have been referred to as *ESF Plans*. This document lays down SOPs for an ESF, as required by UPAAM. The SOP’s of a department / agency will thus constitute a list of processes to be undertaken to fulfill that department / agency’s ESF.

It is useful to underline the relationship between processes, functions and procedures. Processes are a group of related activities performed to produce an end result. Functions are performed on a continual basis, an emergency support function, thus, will be performed till the emergency situation persists. Processes, on the other hand, have a specific beginning and an end point marked by the delivery of a desired output. Related processes, in proper sequence constitute procedure. A procedure is designed to deliver the objective of a function. To lay down SOPs for an ESF first the objectives of that ESF need to be articulated and the processes are then designed to deliver those objectives.

1.c ESF # 1: Communication

Communication implies transfer of information from one point to another. In emergency management context there are two important and distinct types of communication. First is the transfer of information required for emergency management operations and the second is dissemination of information for alerting the population at risk. The first type of communication would take place between the emergency responders, usually between different organs of the state; whereas the second would take place between the State (assuming that the State is the first to become aware of the impending / occurring disaster or the developments that follow) and the public.

To be sure, there are commonalities between the two - both types of communication entail transferring *authentic, comprehensive information*; further in both cases the information available may be incomplete. With situation still unfolding, as is all too common in disasters, waiting for some time may yield more accurate information but in an emergency situation waiting may also significantly reduce the time available for taking remedial measures. Where the two types of information differ is the degree of secrecy (or discretion) required by them. Information needed for assisting the population at risk needs to be disseminated as widely as possible. The information needed for emergency management operations, in many cases, may be shared only *need to know* basis. Admittedly, in many other cases, for example in case of natural disasters like earthquake or floods, not much damage (may be none) would be caused if information meant for responders is shared with members of public. However, in cases such as terrorist attack, communal riots, civil disobedience and mass agitation, the planning details of response must be kept absolutely confidential. Thus, for developing a communication system for sharing information among the responders, the secrecy aspect must be kept in mind and the communication system should consist of secure conduits / networks.

This ESF does not cover *public information*, which is clubbed with media as part of ESF #13; instead ESF # 1 Communication is focused on communication between emergency responders. The essential responsibility of this ESF can be summed up as ***to have in place necessary physical assets and procedural infrastructure for ensuring correct and timely communication of all information related to the emergency to everyone who needs to know, particularly to the Emergency Operations Centre (the central crisis command)***. Its functions and tasks will, naturally, be set against the available / desired physical assets. These SOPs will create the required procedural infrastructure.

The communication system for responders should have the following characteristics:

- The system must be available during *abnormal times*, when the usual means of communication may break down. It should be reliable – must actually deliver information during trying circumstances.

- The system must be audience specific - must reach the intended audience, no matter where they are
- It must be secure – the system itself should authenticate that the information is from valid, trusted source; and safe from leakage

The messages through the system should be timely and usually action oriented, i.e. the messages must suggest actions required for managing the threat.

Certain organizations in disasters have needs that they must rely on other organizations to fulfill. For example, in order to muster their resources, hospitals need to have advance warning that they will be receiving patients and timely estimates of the types, numbers, and severities of casualties to be expected. This information must come from those at the disaster scene.

The key responsibility of this ESF is to meet the communication needs of disaster management.

1.d Primary Agency

The Primary Agency (PA) for this ESF, as described in UPAAM's mandate letter is “the Relief Commissioner's Organization”. Relief Commissioner heads the Department of Revenue (Scarcity). DRS also look after disaster management in the State and the State Control Room (SCR) forms part of “the Relief Commissioner's Organization”. Relief Commissioners' functions include:

- Supervision and follow up of relief works in the State,
- Operation of the State Disaster Control Room,
- Develop policies for disaster management and
- Act as the Nodal Agency for the UNDP Disaster Risk Management Project.

DRS have two Sections – administration and execution. The Execution Section works through the revenue department officials and through the various line departments. Administration Section operates the State Disaster Control Room.

As the agency looking responsible for disaster management in the State, Relief Commissioner’s organization has proper authorities and capabilities to act as the PA for this ESF. Though, it does not have the communication assets possessed by some other departments, notably Police, Relief Commissioner’s organization does offer an on line means of registering a first information report of disasters, (open only to authorized personnel).

1.e Support Agencies

UPAAM’s mandate letter identifies the following Support Agencies: Indian Meteorological Department (IMD), Department of Information and Public Relations (DIPR), Electronic media, AIR, Department of Technology (DoT), Department of Electronics and Information Technology (DEIT), Police and Print media. The normal time functions of DIPR, Electronic media, AIR and Print media make them more associated with ESF # 15 Media than with ESF # 1 Communication. The key issues in designating SAs are the resources and capabilities the designated agencies would bring on board to further / strengthen the ESF. By this criterion, some other agencies, not named in the mandate letter should be included as SAs, namely, Department of Irrigation, Department of Power, Department of Revenue and Army. The following table shows the resources that the SAs would be bringing to the ESF:

	Support Agency	Resources
1	IMD	Information on weather, earthquake etc
2	DoT	Technical support for communication system, BSNL
3	DEIT	Technical support for communication system
4	Police	Radio network and manpower trained in using it
5	Irrigation Deptt	Satellite phones in selected areas
6	Power Deptt	Satellite phones / secure hotlines at selected centres
7	Revenue	Video conferencing facilities at districts
8	Army	Capability to roll out radio communication network in new areas; trained manpower; vehicles and vessels with communication facilities
9	Railway	Independent telecom network

Chapter 2 Communication during Emergencies

2.a Emergencies & Information

Everyone wants to know whatever happens. And if what has happened is a disaster, everyone not affected by it wants to know full details. Whole of India was glued to TV on that fateful evening of September 2008 when terrorists had attacked Mumbai. We wanted to know everything – how the terrorists were moving, how the police were responding and how the guests holed up in the up market hotels were trying to elude them. To cater to our voyeuristic instincts TV channels were collecting every bit they could and were unwittingly passing on crucial details on strength of the reinforcements, their weaponry, and mode of entrance (helicopter hovering on the south side etc) to the terrorists through their handlers watching Indian TV channels in their hideouts in Pakistan. Handlers were using common cellular phones. This in short sums up the communications environment during emergencies.

Information need during an emergency multiplies manifold. Apart from what the public wants to know, the emergency managers need a lot of information for a coordinated response to the disaster. The standard approach is to have a central coordination centre (called by Control Room or EOC etc) that works as the crisis command centre. Mumbai attack showed that there was none. In absence of a command centre, communications were directionless. Information was delayed and missed the target audience. Since no command centre was *processing all information*, it took quite some time for the authorities to get the full perspective of the attack. Finally, hours after the first shots were fired, when it was established that it was a terror attack, the terrorists were alerted that no forward operating unit had been mobilized and that 200 NSG commandos would be coming from Delhi.

An important lesson that can be drawn on communication during emergencies from the Mumbai incidence is that all information must be communicated to the control room. Central processing gives it perspective and enables the responders to take appropriate decisions. A famous Second World War correspondent has said “War to the individual is hardly ever bigger than a hundred yards on each side of him.” The import is any participant in disaster management necessarily has a limited perspective. It will be a poor command that

takes decisions based on inputs from only one source. The field commander sets his tactical objectives based on information inputs from *all his resources*. The general does the same while setting the strategy.

Since individual perspectives may be less than full, many published articles are narratives of a single disaster written from the perspective of one individual. Frequently, the writer would be one who was actually involved in the incident or was in charge of *some aspect* of the disaster planning or response. It is never easy for one to impartially evaluate the actions of his organization. Too often, post-disaster reports turn out to be justifications of what was done, rather than objective assessments of problems and mistakes. This underlines the importance of a communication log. Proper log of all communications made during emergency provide a treasure trove of material to understand the nature of the incidence and to learn from the mistakes or the good things done during its management.

Another lesson from Mumbai incidence is secrecy to be maintained in communications related to disasters – at least to man made disaster. Even during natural disasters, unnecessary airing of information leads to problems in prioritising and even at times jeopardises relief consignments.

Thus the structure of communication among the responders during an emergency should have the following features:

4. It should be communicate all relevant information available at the time of making the communication
5. It should be centrally processed, therefore all information communications should be made to the central crisis command; if any message needs to be sent immediately to some other agency, a copy of that must be marked to the central command
6. A complete log of communications made during the emergency should be maintained by both - the sender of the communication and the receiver of the communication. It also implies, as far as practicable communications should be made by facsimile / e-mail which allows easy maintenance of logs. At least in the control room, the central crisis command, all telephone conversations should be automatically recorded and stored fro transcription.

2.b Communications Problems in Disasters

One of the most consistent observations about disasters is that communication is inadequate. To be sure there is not much clarity on what constitutes *adequate communication*, and why it is so difficult to achieve.

Communication is important during disaster management because of its ability to get people to work together toward a common goal. It is the process by which each person understands how his individual efforts contribute to those of others. Frequently, what are perceived as communications problems are actually coordination problems in disguise. Disasters pose unusual demands for *inter-organizational* coordination. For this reason, a substantial portion of disaster communications problems are related to the *exchange of information among different organizations*. Some of the crucial types of information that need to be shared are those related to:

1. An assessment of what the disaster situation is and what disaster countermeasures need to be undertaken.
2. A determination of what resources are needed to undertake the countermeasures, what resources are present, assigned, out-of-service, and available, how they can be obtained, what is their capacity, and how long will it take for them to arrive.
3. A determination of the priority of needed disaster countermeasures (and, therefore, resource allocation)
4. A determination of what persons and organizations will be responsible for the various tasks necessary to accomplish the countermeasures (Sorensen, 1985:32).

Studies on disasters suggest that many communications problems are "*people problems*," rather than "*equipment problems*". Communication equipment may be in short supply, but more often than not a physical means of communication is available. A typical example of "people" problems in communication is the "Robinson Crusoe syndrome". It says "we're the only ones on this island." *Organizations are accustomed to operating autonomously and fail to change this approach in disasters where multiple organizations are involved and are dependent on one another*. Each person gives priority to the information needs of his own organization rather than that of the overall response effort. This is further aggravated by

- The terminology and procedures used to exchange information vary among different organizations;
- Hesitancy to depend on other organizations, often due to lack of trust or familiarity, or due to political, jurisdictional, and personal differences;
- No mutual agreement as to who has the responsibility for the collection and dissemination of various types of information, or to whom it should be sent;
- Persons possessing information do not realize that another person who needs it, doesn't have it;
- The information needs of other organizations are not understood.
- These are crucial aspects of communication that no amount of radio equipment is likely to correct.

In disasters, what are thought to be "communications problems" are often coordination problems in disguise.

2.c Human Aspects affecting Disaster Communications

2.c.i Developing Trust: Even under the pressure of a disaster, certain preliminary information has to be exchanged before meaningful communication can take place with a member of an unfamiliar organization. Examples of the types of critical information needed include:

- What the organization's legitimate role is in the disaster response;
- Whether that person has a legitimate position in that organization; and
- The competence and reliability of that person.

Emergency organizations with disaster operations responsibility frequently hesitate to coordinate with others unless these questions have been addressed. *This hesitancy may exist even though there are formal plans or arrangements for the different organizations to coordinate.* Unfortunately, the urgency of the disaster situation often precludes the time necessary to determine the answers to these questions on-the-spot. The result is that, unless they have been addressed *before the disaster*, there is a reluctance to depend on the activities of other organizations and a failure to communicate with them.

When one is dependent on other team members, particularly in life-threatening situations, he needs to feel confident in their competence and reliability. Developing this level of trust often requires "pre-incident" contact over a period of time.

2.c.ii Pre-existing Differences: Cooperation is adversely affected by preexisting personal, political, and jurisdictional differences. Such differences whether between State and District agencies, or public and private interests have a pervasive negative influence on cooperation. The consequences of such differences may range from the exclusion of organizations from planning meetings to charges that an organization is transgressing another's jurisdiction or responsibility. Unfortunately, jurisdictional disputes unresolved on an everyday basis, do not tend to get resolved in disasters.

2.c.iii Knowing How Other Agencies Work: Inter-organizational teamwork requires information sharing. Persons need to know when they possess critical information required by someone in another organization, how to get it to the other person, and how to use terminology the other person will understand. For these reasons, knowledge about how other organizations function tends to promote inter-organizational communication. This also explains why the most effective and cooperative relations seem to develop between similar organizations where each has knowledge of the internal operations of the other. With such familiarity, each organization is more likely to feel it can *exchange information* with the confidence that the other is reliable and competent.

Thus, district police tends to interact best with PAC. Important knowledge about other organizations includes that about roles, resources, needs, terminology, and competence. Thus, in some cases, at least to a degree, knowledge of how other organizations *routinely* function is useful in disaster situations. For example, familiarity with another organization's terminology or competence, engendered by previous contact, is likely to facilitate interaction during a disaster. Though this problem, lack of knowledge of how other agencies function is now being addressed to some extent by Incident Commander System with a Unified Command structure where the command is shared by commanders from different agencies.

2.d Technical Aspects of Communication Difficulties during Disasters

Although "people problems" appear to be among the greatest obstacles to effective disaster communications, there are a number of technical problems that can also inhibit information exchange. Floods, sabotage, and earthquakes are all capable of toppling antennas and

interrupting normal electrical power. In a recorded earthquake incident abroad, during the shaking, the police department's radio console fell on the floor and broke, disabling the system. The earthquake also cut off power to the hospital's radio, and the emergency back-up power system failed

Effective disaster preparedness requires that essential communications equipment have sources of back-up power. The equipment and reserve power source need to be protected against the forces of the impact. In areas of seismic risk, this equipment needs to be anchored. In flood-prone regions, it needs to be placed in elevated areas. The antennas must be able to withstand violent winds.

Besides loss of function, there are other technical problems in inter-organizational disaster communications. Because of the unreliability of telephone communications in disasters, communications are often carried out by two-way radio. Unfortunately, assignment of different frequency bands to different organizations (for example to Police and Army) make this very difficult. A "band" is a collection of neighboring frequencies, and it is technically possible to have a single radio that can switch to different radio frequencies on the same "band." However, the difference in frequencies on separate bands is so great that completely different radio-electronic circuits and antennas are needed. *In effect, for each band a completely different radio is needed.* If several organizations are on different radio frequencies in the same band, it is possible for them to communicate with each other if they all switch their radios to the same frequency. This is not possible if the frequencies used by the organizations are on different bands and unfortunately, this is the way radio frequencies have been assigned. The bands involved are: low band (37-42 MHz); high band (150-155 MHz); UHT (450-470 MHz); UHF-TV (450-470 MHz); and the 800 MHz band (806-902 MHz). In addition there are different bands for use by the military and ham operators.

Thus a staff of Irrigation Department cannot talk to an Army rescue boat using their assigned frequencies. Imagine his intense frustration if he has no way to communicate with the boat sailing near a victim hidden from the boat's view by some tree branches. The communication chain would be something like Irrigation Department staff to his headquarters, headquarters to crisis command office, crisis command to Army and Army to

the rescue boat. The boat would be half a kilometer way by the time the rescuers hear of the poor victim hanging on to life on some tree branches.

Because departments at the scene did not have a common radio frequency, messages often have to be conveyed by runners or shouting. *A common radio frequency is needed for responders who must coordinate with one another.* Disaster management requires inter-agency communication networks utilizing compatible radio frequencies.

Chapter 3

Objectives & Scope

3.a Objectives

The objective of these SOPs is that responsibilities of ESF 1 Communication should be discharged effectively during emergency management operations. Understanding the objectives, thus necessarily starts with understanding the responsibilities. A careful articulation of those responsibilities indicates the required functions; and spelling out the functions points toward the tasks under this ESF. The tasks are then broken into the processes required for their fulfillments. The SOPs consist of the processes so arrived at, rearranged in a holistic manner, i.e. keeping in focus not the specific tasks but the full role of the ESF 1 Communication.

In Section 1.c the responsibility of the ESF has been summed up as meeting the communication needs of emergency management. Chief characteristics of the emergency management communication system have been described as under:

- Availability during *abnormal times*,
- Reliability – must actually deliver information during trying circumstances.
- The system must be audience specific
- It must be secure

These features are required in times of extraordinary stress, when regular procedures of a department / agency may become inadequate. It is, therefore, important that comprehensive emergency plans be drawn up to address the essential interactions and interdependencies among them. During disasters, demands for information grow manifold and their urgency multiplies, calling for close coordination between the PA and the SAs. But often a disaster disrupts the normal working relationships as organizations get involved in responding to the crisis. In the absence of a coordinated emergency response framework communication among the responders may fall short of what is required and the response efforts may suffer setbacks.

These SOPs are to provide the required framework. A SOP is a set of instructions covering *those features of operations that lend themselves to a definite or standardized procedure without loss of effectiveness*. SOPs improve performance and organizational results. Thus the fundamental objective of SOPs is to achieve uniformity of the performance of a specific function. By documenting the way activities are to be performed to facilitate consistent conformance SOPs control a process to obtain a desired pre-determined outcome.

Against this backdrop, the objective of this document is to provide a complete reference detailing the procedures for fulfilling all communication needs of disaster management operations. It creates a procedural infrastructure to ensure consistent performance.

The purpose of this SOP is twofold: first, to provide emergency communications and telecommunications support for use in disaster or emergency situations; and second, to provide for the receipt and dissemination of emergency notifications, which would include internal alert levels, enemy attack, natural and technological disasters, hazardous materials incidents, nuclear fallout and any other large scale emergencies or alerts affecting the state and local governments of Uttar Pradesh, and hence, the populace and private organizations in potentially affected areas in keeping with all existing references, laws, and guidelines. Thus, the SOPs will:

- a) Serve as a basis for planning the coordination of communication assets in State of Uttar Pradesh in accordance with the State Disaster Management Plan.
- b) Lay down the procedure for rapid alerting and warning to key local jurisdictions officials and the general public of an impending or occurring natural or man-made emergency or disaster.
- c) Lay down the procedure for organizing, establishing, and maintaining the communications and information system capabilities necessary to meet the operational requirements of the State and local jurisdictions in responding to, and recovering from, emergencies and disasters.

- d) Lay down the procedure to ensure that the emergency management teams at local and state levels have accurate and timely information on which to base their decisions and response actions.
- e) Lay down the procedure for coordinating the effective restoration of communications after a disaster with the service providers and private utilities.

3.b Scope

The State Emergency Response Plan will guide all State communications, information systems and warning activities related to warning, mitigating, preparing for, responding to, and recovering from emergencies or disasters. Communications, information systems and warning support requirements which cannot be met at the State level will be escalated upward for resolution at the National level by SDMA or appropriate state agencies. If needed, Central assistance will be requested.

The scope of this SOP is to describe the overall communications and warning systems employed by the State Disaster Control Room prior to, during and after a disaster or emergency situation. These systems will be used in support of the operations of the SCR, district CRs, local governments, and the response community and include land line, cellular, secure, and special telephonic communications, computer internet and modem radio communications and the Emergency Alert System (EAS) coordinating all broadcast and cable mediums.

These SOPs are intended for the PA and all Support Agencies named in this document. The *SOPs are permanent in nature* i.e. they will remain always operational. Any particular section would get activated when the situation covered by that section arises, and would get deactivated when the situation ceases to be so. The SOPs are intended to cover all conceivable contingencies. At the same time they are precise, seeking performance of specific activities. Nevertheless, these SOPs do not preclude the Primary Agency or Support Agencies from undertaking any other activity that may relate to this ESF but are not covered under the SOPs.

Chapter 4: Planning Assumptions & Guidelines

The SOPs are based on *two types* of assumptions – situational assumptions and assumptions on principles and policies of communication.

4.a Situational Assumptions

The following means of communication are / will be available in the State:

1. Land line telephones
2. Cellular telephones
3. Police wireless system
4. Internet connectivity provided by BSNL as also by private operators – working both on land lines and on cellular network
5. High speed broad band connectivity between State capital and district headquarters enabling video conferencing
6. Satellite phones with Irrigation department for certain pockets
7. Satellite phones with Power department for certain centres
8. 159 ham radio operators (source: State web site, DRS page)
9. Private telephone network of Indian Railways
10. Radio network of Army
11. Police and Revenue department functionaries are covered under a “Closed User Group” mobile service

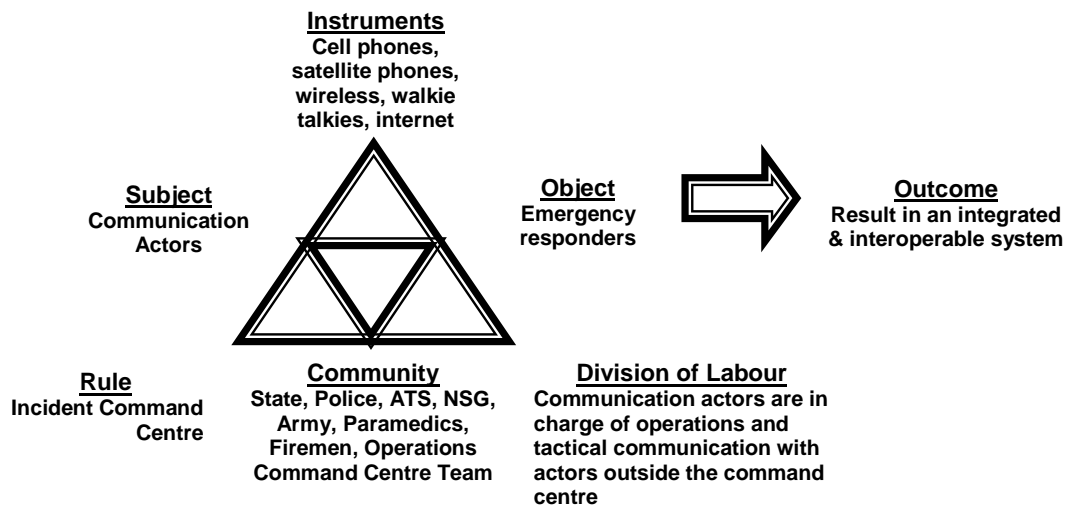
In a major disaster – earthquake, floods, communal riots, etc it is feared the usual means of communication may not be available. In particular:

1. Telephone network may collapse in the areas affected by the disaster. (It was verbally shared by the Nodal Officer, Disaster Management Cell of BSNL, Lucknow that even if their telephone network were sabotaged by terrorists, BSNL is in a position to switch over to a back up system providing full service to consumers. He did not share the details on grounds of confidentiality. It is unlikely that if the physical communication assets get destroyed in course of floods or earthquake, the back up system will be capable of delivery.)

2. Cellular phone towers may become dysfunctional -
3. Power supply will almost certainly get disrupted and it is unlikely that any ham operator would have power back up for long period
4. Army may be called to help in emergency response and may be requested to roll out radio network covering the affected areas
5. The spectrum bands assigned to Army and Police being different, the two radio networks (Police wireless system and the temporary roll out by Army) may not be inter-operable.
6. Video conferencing facilities may become dysfunctional
7. Control rooms will be equipped with wireless system
8. Control Room(s) / EOC shall maintain audio records of all communications received over phones / wireless and physical records of messages received through electronic mail / facsimile etc

4.b Concept of Operations

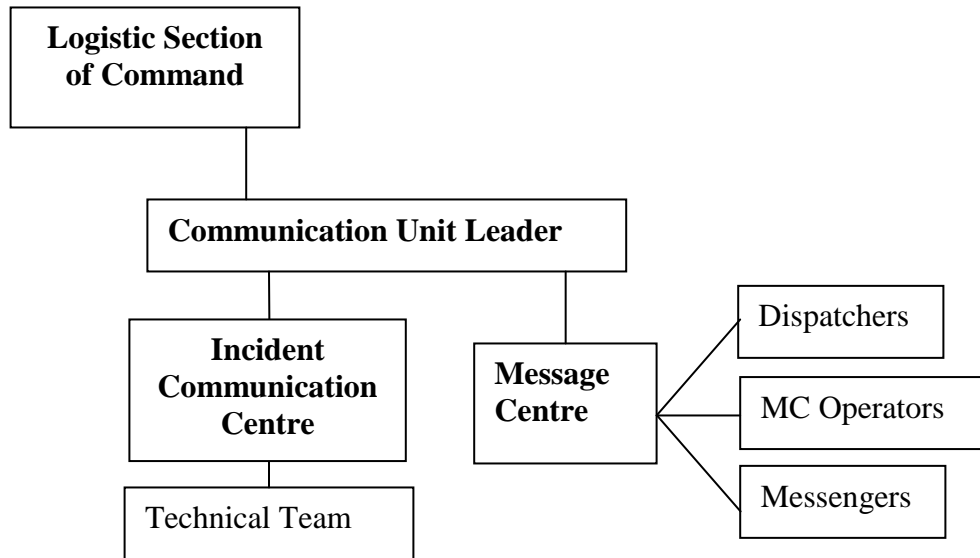
Activity Theory analysis of disaster management, brings the role of communication and information in sharp focus. When an emergency occurs, the primary task is to set up a crisis command centre. A command centre is a central place for carrying out orders and for



supervising tasks. It includes a group of experts unified to manage the emergency. The first group is composed of all those who are in charge of data collection. They collect crisis data and process it to be further synthesized into helpful information. They are called *perception*

actors. The second group of actors includes those who are responsible for analyzing the situation and taking decision. They are **analyzing actors.** The first-in-command should make decision and operate from the command centre rather than being present on the site of the emergency. The third category is in charge of operational and tactical communication with the actors outside the command centre. They are **communication actors.** The last category of actors are those responsible for informing the persons not directly involved with the management of the emergency and are called **information actors.** Thus information (and therefore communication) forms the central link along which the entire operation is structured.

For managing any emergency, a communication centre, called Incident Communication Centre (ICC) shall be established. ICC will either be located *very close* to SCR/EOC in an adjacent room. (The function of ICC is to give system support to communication process.



In addition to ICC another facility Message Centre will be required to receive, transmit and record messages.) ICC will be headed by the Communications Unit Leader (CUL). CUL will report directly to the Incident Commander and will be responsible for developing plans for the effective use of available means of communications. CUL’s functions shall include:

1. Installing and testing of communications equipment;
2. Supervision of the ICC;
3. Distribution of communications equipment to incident personnel; and

4. Maintenance and repair of communications equipment.

CUL shall be designated by the PA i.e. by the Relief Commissioner. Since Relief Commissioner's organisation does not have much of communication equipment, it may decide to acquire such communication assets that will be functional in most emergencies. The clear choice is satellite phones and / or a V-SAT based telephone network.

Till such time that DRS acquires these hardware, ICC will be overly dependent on Police wireless system and temporary wireless system expected to be rolled out by Army. CUL may also contact BSNL for installing and activating a micro-wave based emergency telephone network, wireless in local loop, for responders' use in the affected areas. A firm understanding needs to be worked out with BSNL regarding equipment needs, costs, time for installation / activation and logistics support required by them.

ICC will serve on round the clock basis for receiving communications and passing on to the designated audience. It will maintain live channels of communication with local governments and also the Central government to ensure optimal information flow. It will coordinate with all agencies and organizations engaged in response operations to ensure operational readiness *before, during and after* an emergency or disaster. This will require that ICC be a permanent facility – not to be after the occurrence of a disaster. These SOPs provide for its creation and assess its requirements of staff and other resources.

CUL will also maintain capability of the Mobile Communications Vehicle (MCV) to provide on-the-scene coordination of state emergency communications during an emergency or disaster. For these purposes CUL will maintain agreements and contracts to ensure equipment and system maintenance on a 24-hour-a-day basis. ICC Alternate communications systems shall be maintained and tested on a weekly or monthly basis as appropriate for back up capability.

4.c Assumptions on Principles of Communication

- (5) All communications from field shall be made to the Control Room / Emergency Operation Centre.

- (6) Any communication related to emergency management shall be confidential until the Incident Commander decides to make it public.
- (7) Wherever possible, agencies reporting from fields shall make use of computers (IP) to transmit full details – including pictorial information.
- (8) Different agencies will interact directly with each other if needed and keep the CR / EOC posted of their communications

4.d Suggested Guidelines on Radio Communication

The following guidelines are suggested for radio discipline. The guidelines should be made mandatory on all radio networks (nets) in use for emergency management and must be adhered to by every person / agency engaged in emergency management:

1. All comments must, in some way, relate to the current event or mission.
2. Comments need to be brief, consistent with clarity.
3. The Communications Unit Leader may interrupt an exchange at any time and stop the exchange by calling for the Net to be cleared. No explanation of the Communications Unit Leader's action in this regard is expected.
4. Volume - speak at a volume as for normal conversation. Shouting causes distortion.
5. Radio checks are permitted but are only to be used when required.
6. All communications shall be clear text. Radio communications shall be received from sender using the following model:
 - a. Request to initiate communications and determine that the intended receiver is listening.
 - b. Transmit the message or order concisely in clear text.
 - c. Receive feedback from the receiver to ensure that the message was received and understood.
 - d. Confirm that the message or order was understood, if not, correct and clarify the message.
7. Plain text language and common and consistent terminology will be used at all times.
8. Always:
 - a. Use correct voice procedure.

- b. Maintain a **constant listening radio watch** unless specific instructions or permission has been received to the contrary. This requires that **at least one person be nominated to monitor the radio regardless of the circumstances.**
 - c. All aspects of voice procedure are based on the assumption that receiving stations will respond to the call immediately.
 - d. Ensure that the correct frequency is in use, which can be received by the intended receiver.
 - e. Answer calls in the correct order and without delay.
 - f. Listen carefully before transmitting to ensure that the frequency is clear and, where possible allow for stations which cannot be heard.
9. Never:
- a. Make unnecessary or unduly long transmissions.
 - b. Engage in unofficial conversation or operator's chat.
 - c. Speak faster than the station experiencing the worst reception conditions can be expected to receive, thus avoiding needless repetition.
 - d. Show loss of temper or resort to profane language.
10. Breaking the Net - i.e. breaking into a running radio conversation: Breaking the net should be an extra-ordinary event - normally, waiting a minute or two is not going to make a difference. If the interruption involves a **life or safety issue**, it would be acceptable to interrupt an ongoing communication, *Persons must pause between turnovers in transmission to allow for another station to break in.*
- a. A person may interrupt the current flow of communications on a net if he or she has a communication of higher importance which must be conveyed as quickly as possible. Such communications includes: communication from a higher authority than those on Net. *This however does not mean that higher authority may break in the net for a routine message.*
 - b. The person wishing to break the net should wait for the next natural pause in the communication currently taking place; preferably waiting for the end of that communication.

Priorities

- a. Life Safety (first priority).
- b. Incident Stabilization and protection of the environment (second priority).
- c. Property Conservation (third priority).

4.e Suggested Communication Network

At present State Control Rooms are linked with District Disaster Control Rooms by ordinary telephone lines. (Revenue Department does possess video conferencing links with the Divisional Commissioners and District s, though). For effective communication during emergencies, State needs to establish a VSAT network linking the SCR with divisional and district headquarters, and a VHF radio network linking district headquarters with sub-divisional and Taluka headquarters. The VSAT network may have a hub station in Lucknow, a backup hub at Noida / Allahabad, and remote stations distributed mainly among the divisional commissioners' and district-level offices. Each district will have a VSAT terminal at district headquarters with batteries and UPS systems. *Transponder space will need to be leased from VSNL.* The network should be capable of being expanded with another 300 VSAT terminals without any additional hub. (Such a network can be utilized also for maintaining on-line records of each district-level transaction, after adding a LAN at each district headquarters.)

Chapter 5: The Procedures

5.a L0 Situation

5.a.i L0 SOPs for Primary agency: Relief commissioners' organisation (Department of Revenue (Scarcity))

SOPs for the Primary Agency are dictated by the PA's role during disaster situation. Broadly, the preparedness activities will cover

1. Pre-identify communications facilities, equipment, personnel and training needs in State and local jurisdictions that could be made available to support response and recovery efforts.
2. Assess selected sites to store pre-staged communications assets for rapid deployment into the affected area.
3. Encourage and promote interoperability among different agencies.
4. Conduct regularly scheduled communications and siren tests and drills and other pre-designated emergency communications support facilities to insure operational readiness and procedural familiarity.
5. Conduct regular checks of all communications and IT equipment and systems in the EOC and associated facilities.
6. Utilize EOC communications and IT equipment as an integral part of all communications and warning systems in exercises and State EOC participation.

Detailed L0 Procedures

1. Creation of a secure network

PA may examine and initiate steps for acquiring a V-SAT network as envisaged in Section 4.e

2. Creation of Incident Communication Centre (ICC)

The nerve centre of communication during an emergency will be ICC, manned by the Communication Unit and headed by a CUL. As the ICC will be a permanent facility with mission critical maintenance functions during normal (L0) times, PA will need to create it during normal times. ICC will be located in a room adjacent to the SCR / EOC.

3. Creation of a Message Centre (MC)

Message centre is the place where all messages are received and recorded during the emergency operations. This centre also provides transcripts of all verbal messages. Telephones in MC will have automatic recording facilities. Unlike ICC It will not be functional during L0. Its equipment will be tested regularly by the ICC personnel. MC *must be inside* the SCR / EOC.

4. Staffing the ICC

- a. PA will identify a suitable person to act as the Communication Unit Leader (CUL) to head the ICC. PA will also identify a second person to act as the CUL if for any reason the designated CUL is unable to function during any emergency.
- b. The CUL and the second in command shall jointly identify the personnel for the Communication Unit (CU). CU shall consist of technical persons – those who understand communication equipment. As such persons may not be available in DRS, CUL may look for potential CU staff in DEIT / DOT and make inter-departmental arrangements for their full time deputations during emergencies and part time rotating deputation of one person for daily maintenance check up.
- c. Communication Unit will consist of 8 persons to provide three teams of 2 to work in 3 shifts during emergencies with one team in reserve.

5. Staffing the MC

MC does not need technical staff. MC personnel will be required to listen and record. Suitable staff from DRS may be identified for this purpose by CUL and appropriately briefed. Staffing needs of MC, in major disasters may be high.

6. L0 Procedures for the CU

- a. Communication Unit shall test the communication equipment regularly, *everyday* to ensure that they will be functional whenever a disaster strikes.
- b. CU shall maintain an alternate communications system in a near by room and test it on a *weekly or monthly* basis as appropriate for back up capability.
- c. They will maintain a log of such maintenance activities – both of the main system and of the back up facility, and put up the log to the CUL *every month*

- d. CU will maintain live channels of communication with all local governments in the State and also with the Central government to ensure information flow.
- e. CU will keep in touch with all agencies and organizations engaged in response operations to ensure operational readiness at all times.
- f. CU will maintain records on all communications equipment as appropriate
- g. CU will develop / install an electronic mail system that will maintain files of all incoming / outgoing messages subject wise

7. L0 Procedure for Communication Unit Leader

- a. CUL will initiate talks with BSNL for installing and activating a micro-wave based emergency telephone network, wireless in local loop, for responders' use in the affected areas during emergencies. CUL will work out a firm understanding regarding equipment needs, costs, time for installation / activation and logistics support required by BSNL.
- b. PA shall aim to own its own communication equipment eventually, CUL shall obtain financial sanction and complete the formalities for acquisition
- c. CUL will understand the spectrum distribution between Army and Police and work out the possible ways for ensuring seamless communication between their radio networks during emergencies.
- d. CUL will also maintain capability of the Mobile Communications Vehicle (MCV) to provide on-the-scene coordination of state emergency communications during an emergency or disaster. For these purposes CUL will maintain agreements and contracts to ensure equipment and system maintenance on a 24-hour-a-day basis.
- e. CUL shall review the CU staffing needs and expose the CU personnel to necessary training programmes.
- f. CUL shall prepare and implement the Radio Communications Plan. A radio communication guideline has been provided in this document in Section 4.d. The Radio Communication Plan shall have the following areas:
 - i. System for distribution of equipment during emergency management operations
 - ii. System for ensuring accountability for the custody of equipment
 - iii. System for insurance of all mobile equipment against the usual risks

- g. CUL will, in consultation with the PAs of different DMPs identify the disaster prone areas and work with BSNL on strengthening communication network in those areas.
- h. CUL will devise a system to ensure equipment accountability and arrange for issue of necessary orders / notifications in this regard.
- i. CUL must be in a position to provide technical information as required on: -
 - i. Adequacy of communications systems currently in operation
 - ii. Geographic limitation on communications systems.
 - iii. Equipment capabilities/limitations.
 - iv. Amount and types of equipment available.
 - v. Anticipated problems in the use of communications equipment.

5.a.ii L0 SOPs for Secondary Agencies

These procedures have been developed with the avowed objective of making the concerned Support Agencies (SAs) understand their duties and responsibilities regarding disaster management at all levels. All support departments and agencies shall prepare their own action plans in respect of their responsibilities for effective communication in disaster situations. The SDMA and Department of Revenue (Scarcity) will ensure coordination of the disaster related communication at state level.

The support departments and agencies will organize proper training of officers and staff on disaster communication mechanisms and protocol at different stages of disaster. Emergency response teams will be kept in state readiness by each department so that they can activate that trigger communication process at shortest notice. The standard operating procedure shall be followed during normal times, warning stage, disaster stage and post disaster stage. Standard Operating Procedures for Communication for all the relevant SAs at the State level is as below:

- Establish a DM cell in the department in the department at the state level as a well-equipped Nodal Communication Centre with data recording and data retrieval facilities.

- Identify back-up communication facilities in case of failure of Nodal Communication Centre of the Departmental DM Cell.
- Establish Disaster Communication Command Structure in the department
- Designate a Communication Officer / Astt. Communication Officer to man the DM Cell.
- Maintain a Directory of important Contact telephone numbers and addresses/ emails and communication resources
- Prepare an Inventory of data on distribution of departmental communication resources.
- Standardize disaster communication language and update SEOC and other agencies accordingly.
- Conduct periodic meetings with the Department of Revenue on disaster related activities and preparedness.
- On the basis of its responsibility, liaise and communicate with other line departments and agencies for a coordinated mitigation approach. Conduct periodic joint meetings with related support agencies.
- Keep in regular communication with the SEOC.
- Undertake Joint Disaster Communication Mock-Drills with SEOC and related agencies.
- Perform daily checks on communication systems and equipment.
- Update communication data (telephone numbers etc) on quarterly basis.
- Keep SEOC and other agencies informed about any changes in DM Cell or Nodal Communication Centre of the Department.

5.b L2 Situations

Reliable communications and information system capabilities are necessary at all levels of government for day-to-day communications, warning of impending events, response and recovery operations, search and rescue operations, and coordination with other state and public safety agencies. Such capabilities must be available to the State for operations from the primary or alternate EOC as well as any other location selected because of existing conditions at the time of the emergency or disaster. A prime requirement of all organizations

engaged in disaster and emergency operations is effective comprehensive communications with all of the involved and potentially involved elements. The magnitude of a particular situation determines the extent of the emergency response and the need for communications. The degree to which and the type of communications systems are utilized is directly related to the scope of the incident.

5.b.i Procedures for PA

Response activities of PA are:

1. Receive and disseminate warning information Statewide and to local jurisdictions.
2. Coordinate communications support to all governmental, private communications providers, and volunteer agencies as required.
3. Determine what assets are available and nearest to the affected area(s) by each ESF 1 support agency and mutual aid support entities and the time frame in deploying those assets.
4. Prioritize the deployment of services and equipment based on available resources and critical needs.
5. Coordinate the acquisition and deployment of communications and warning equipment, personnel, and resources to establish temporary communications capabilities within the affected area.
6. Identify the actual and planned actions of commercial communications companies to restore services.
7. Compile communication and warning system damage information obtained from assessment teams, the communications industry, the local/State emergency management director and other city and State/State agencies and report that information through ESF 5, Emergency Management.
8. Assess the need for and obtain communications industry support as required.
9. Maintain a continuous communications capability as the State point-of-contact for emergency reporting.

Detailed L2/L3 Procedures

1. **Assembling the ESF 1 Team:** CUL shall contact the individual team members and assemble the ICC and the MC teams and confirm to the Relief Commissioner (RC) that the Incident communication Centre has become operational.
2. **Activating ICC and MC:** CUL will cause that a) all messages being transmitted to Command are received at the MC and b) ICC team is ensuring the robustness of the communication system.
3. **Duty hours** CUL shall assign duties among the ESF 1 team members to ensure that the MC and ICC run 24 hours as long as the emergency management operations run round the clock.

4. Procedure for receiving messages at MC

These procedures are intended *for the person assigned to man any incoming calls:*

- i. Ensure that the telephone system automatically creates a log of all incoming calls, if not maintain a register to record all incoming calls with the following particulars: telephone number (from CLI), date and time of the call, name (designation) of the caller, name (designation) of the recipient, subject matter, how disposed
 - i. Listen attentively and do not interrupt the caller
 - ii. On first opportunity identify yourself by name and inform that it is the Message Centre
 - iii. Transfer the call to the recipient, if he is available, else note down the message and inform the caller that the message is being dispatched to the recipient
 - iv. Send the message through a dispatcher.
5. **Handling electronic mail:**
 - i. Take a print of the message and immediately dispatch to the recipient

- ii. *If the email system does not create files automatically*, maintain separate folders on the computers.
 - iii. Finalise the filing system in consultation with the CUL. Typically the folders can be sector wise (if emergency is being managed in more than one sectors), sender wise (site managers), function wise (e.g. EFS Transport). If there are two or more sectors, for each sector the folders would be ESF wise or Site Manager wise.
 - iv. Take a copy of the message and paste on a document in the relevant folder. The copy must show the name of the sender and the date / time of the message.
- 6. In a disaster or emergency, all available communication channels will be used to the extent necessary to achieve a coordinated response.
- 7. **Voice communication is necessary** to the command and control of response and support forces. ***However***, the more information such as damage reports and resource lists can be transmitted by other means such as facsimiles and computer interface.
- 8. The linkages required in a disaster emergency Warning and Notification Systems are as follows:
 - a. Inter- and Intra-jurisdictional communications at all levels
 - b. Communications to subordinate, adjacent and superior jurisdictions
 - c. It is recognized that some telecommunications elements of the emergency or disaster response organization will of necessity be established before the activation of any plans. Recognizing the emergent nature of the telecommunications system, no pre-ordained or pre-set formal structure is desirable. However, the following guidelines will be used:
 - i. The Communication Unit Leader will be designated by the incident commander as soon as practical, *if not pre-designated*.
 - ii. Multiple, *independent link systems* (such as landline, cellular, and satellite telephones) shall be used whenever possible

- in preference to common link systems such as radio communications.
- iii. Hard copy telecommunications (such as facsimile and computer generated) will be used whenever possible for emergency nature operational traffic.
 - iv. CUL will establish net discipline on all nets and frequencies being used as soon as possible.
 - v. CUL may move activities between available circuits / nets in order to maximize efficiency. In making such decisions, CUL should take into account availability of resources, difficulties of transition, and potential administrative alternatives.
- d. Should landline or cellular telephonic communications become overtaxed with system overload, access to the State Government Emergency Telephone System (GETS) should be in place through cellular priority access system if available from BSNL.

5.b.ii Procedures for SA

All agencies - Provide agency telecommunications resources as directed by the state coordinating officer in all emergency and disaster incidents.

Alert and Warning Stage

- Activate Nodal Communication Centre and ensure information flow with SCR / EOC 24 hrs.
- Nodal Communication Centre to keep in constant touch with the SCR / EOC.
- Alert all concerned about impending disaster.

During Disaster

- Ensure information flow from affected district and maintain regular contact with EOC (24 hrs). Position representative in EOC if your department is the primary agency for the disaster.

5.c Post disaster (Recovery Phase)

1. Use public, private and volunteer communications assets available to support a recovery mission. Other volunteer and local agencies with

communications assets may be requested to contribute assets to the response effort.

2. Private resources may also be considered for availability and effectiveness. Furthermore, availability, operational condition, and duration of need must be considered. The logistical requirements necessary to obtain critically needed equipment will also be evaluated.
3. Plan and prepare the communication systems to support the establishment of staging areas, distribution sites, Joint Information Centers, and other local, State, and state recovery facilities and emergency workers in the impacted area. ESF 2 describes the working relationship with State and State agencies to establish recovery communications operations.
4. Coordinate with local and State agencies to establish recovery communications operations, as appropriate.
5. Maintain appropriate records of work schedules and costs incurred by ESF 2 agencies during an event.
6. Generate in a timely manner, information to be included in State EOC briefings, situation reports, and/or action plans.

There will be no major changes in the procedures. **After Action Report:** After declaration of L0 prepare a report on ESF 13 operations during different phases of the disaster for the DIPR. The report should detail the challenges faced and suggest changes in SOPs if required.

After Disaster

- Analyze the strength and weaknesses / failures experienced-take out lessons.
- Revise and modify the SOPs in line with the lessons learnt.