

NATIONAL DAMAGE ASSESSMENT PLAN



Damage caused by Hurricane Gilbert, 1988.

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1.0 Introduction

Damage assessment can be described as an inspection/investigation into the damage of either a specific facility and/or a particular area, to aid disaster managers in deciding on the type and amount of assistance required to restore a sense of normality to the affected area. The result of this inspection is to be recorded and assessed at the National and/or Parish levels by the appropriate agencies.

The damage assessment exercise is critical to the country's ability to restore all sectors to normality after a disaster, hence the need for the development and implementation of this plan.

Relationship to National Disaster Plan – the Damage Assessment Plan is a sub-plan of the National Disaster Plan. The authority, roles and standard procedures remain the same as outlined in the National Disaster Plan.

The plan will be reviewed and revised on a regular basis. A glossary and acronyms used is enclosed.

2.0 Authority

The ODPEM will be responsible for all preparedness, response and relief activities for the island as mandated under the Office of Disaster Preparedness and Emergency Management Act (1993). The ODPEM will therefore facilitate the design and review of this plan.

3.0 Objectives of the National Damage Assessment Plan

The objectives of the Plan are to:

- (i) Identify areas that may be unfit for human habitation or where evacuation is necessary.
- (ii) Enable the rapid collection of information pertaining to the damage incurred after any disaster event.
- (iii) Standardize the instruments used to record and report damage sustained after an event.
- (iv) Guide the process of assessing, estimating and reporting the damage.
- (v) Define the time required to prepare detailed and accurate reports.
- (vi) Facilitate the quick recovery of lifeline¹ facilities in a timely and orderly manner by assessing the magnitude of the damage incurred and identify priorities and resources required for resumption of normal operations.

¹ Lifeline facilities include health facilities, bridges, roads, utilities, police stations and shelters.

4.0 Types of Damage Assessment Teams and Composition

4.1 Composition of the teams

A damage assessment team is a group of technical and professional persons who have been trained in the field of data collection as it relates to the varying needs of affected communities. The team should consist of persons who are able to recognise the varying types of damage. Special teams will be named as Damage Assessment Teams at National and Parish levels. After the disasters, either the National Emergency Operation Centre (NEOC) or Preparedness Emergency Operation Centre (PEOC) will dispatch them to the disaster site where the information will be collected. The teams will be responsible for data collection and evaluation.

There are a number of Damage Assessment Teams; the type and magnitude of the event will determine the team deployed. The teams are:

- a) Rapid Damage Assessment Team
- b) National Damage Assessment Team
- c) Parish Damage Assessment Team
- d) Sector Assessment Team

4.2 Rapid Damage Assessment Team (RDAT)

This team will conduct reconnaissance trips after all large-scale disaster events and operates only at the national level. It is to provide an assessment of the damage within the first 4-6 hours, after the all clear.

Roles and Responsibilities

- a) Confirm the reported emergency and estimate the overall magnitude of the damage.
- b) Identify, characterize and quantify populations at risk in the disaster.
- c) Identify and classify type of damage.
- d) Identify access routes and the levels of entry into the affected areas
- e) Identify damage to critical buildings, infrastructure/facilities.
- f) Estimate the extent of the damage.
- g) Identify existing and potential threats.

Composition of the team

The core team will consist of persons taken from the ODPEM, JDF, NWA and the JPS. The team will vary depending on the size of the reconnaissance helicopter available from the Jamaica Defence Force. The other agencies to be included are:

The Ministry of Health

Ministry of Agriculture

The National Water Commission
Members of the Media

Cable and Wireless
Jamaica Fire Brigade

The members of the core team are expected to be available at all times. In an emergency, the members of the core team are to contact the ODPEM, if they are not contacted within four hours after the event has occurred.

4.3 National Damage Assessment Team (NDAT)

This team is responsible for the collection of data pertaining to all major disasters within the island. The members of the National Damage Assessment Team are drawn from the National Damage Assessment, Recovery and Rehabilitation (DARR) sub-committee. It will operate in close collaboration with the National Emergency Operation Centre. The Director of the National Damage Assessment Team will provide information to the Director of the National Emergency Operations Centre. The members of the team will carry out assessments independently or jointly, but each agency will report damage to the Director of the NDAT at least once every 24 hours initially and then as required.

Roles and Responsibilities

The role of the national damage assessment team is to:

- a) Continue detailed identification and quantifying populations at risk.
- b) Help define and prioritise the actions and resources required to reduce immediate risks.
- c) Identify the priorities of the affected people
- d) Estimate the additional support required from local, national and international sources for relief and recovery.
- e) Identification and documentation of existing resources.
- f) Identify areas that may be unfit for human habitation or where evacuation is necessary.

Composition of the Team

The National Damage Assessment Team is responsible for collecting and collating damage data for all events affecting either the entire island or one (1) or more counties. The NDAT will operate in close collaboration with the NEOC. The members of this team are listed below. Each member of the team is expected to provide reports on the damage incurred to its facilities islandwide as well as the general damage observed.

Airport Authority

Bank of Jamaica

Building Societies Association of Jamaica

Earthquake Unit

Incorporated Masterbuilders Association of Jamaica

Jamaica Association of General Insurance Companies (JAGIC)

Jamaica Constabulary Force
Jamaica Defence Force
Jamaica Fire Brigade
Jamaica Information Service
Jamaica Institution of Engineers
Ministry of Agriculture
Ministry of Education and Culture
Ministry of Health
Ministry of Labour, Social Security and Sports
Ministry of Local Government and Community Development
Ministry of Mines and Geology
Ministry of Transport and Works
Ministry of Water and Housing
National Environmental Protection Agency
National Meteorological Service
National Water Commission
Non- Governmental Organizations
Pan American Health Organization
Planning Institute of Jamaica
Port Authority of Jamaica
Private Sector Organization of Jamaica
Statistical Institute of Jamaica (STATIN)
United Nations Development Programme
University of the West Indies
Urban Development Corporation
United States AID
Utility Companies
Water Resources Authority

4.4 Parish Damage Assessment Team (PDAT)

The Parish Damage Assessment Team is responsible for the collection of data pertaining to all major disaster events within the parish. The members of this team will also assist the National Damage Assessment Team whenever the need arises.

The Parish Damage Assessment Team will be a sub-committee of the Parish Disaster Committee. The Parish Damage Assessment Team (PDAT) will operate in close collaboration with the Parish Disaster Committee and the Parish Disaster Coordinator.

The role of the parish damage assessment team is to:

- a) Confirm the reported emergency and estimate the overall magnitude of the damage.
- b) Identify, characterise and quantify populations at risk in the disaster.
- c) Help define and prioritise the actions and resources to reduce immediate risks.
- d) Identify the priorities of the affected people
- e) Estimate the additional support required from local, and national sources for relief and recovery.
- f) Identification and documentation of existing resources.
- g) Identify areas that may be unfit for human habitation or where evacuation is necessary.

The members of the Parish Damage Assessment team will include:

Roads and Works Dept- Parish Council
Utility Companies – Parish rep
Jamaica Constabulary Force
Jamaica Fire Brigade.
Ministry of Health
Ministry of Agriculture
Ministry of Transport and Works
Ministry of Local Government and Community Development
Ministry of Labour, Social Security and Sports
Ministry of Education and Culture- regional rep
Jamaica Defence Force
Poor Relief Dept
Non Governmental Organizations
National Works Agency – Parish manager/regional manager

4.5 Sector Assessment

The specialist sectors (e.g. utilities, health agriculture, welfare) and Non-Governmental Organizations (NGO) will conduct their individual damage assessment. These organizations will provide reports on the extent of damage incurred to their facilities and estimate time for repair of facilities. When requested they will also assist the other damage assessment teams in the data gathering, evaluation, economical and sociological recovery and rehabilitation of affected areas.

5.0 TRAINING

Damage assessment training is the responsibility of the individual organization and/or agencies. However, the ODPEM will be responsible for providing training for the Damage Assessment Teams. This training exercise will be conducted twice per year and seeks to empower the participants in quantifying, classifying and evaluating damage.

Although the ODPEM will be responsible for conducting/scheduling training, the training manual will be provided by the training source, and reviewed/refined by the sub-committee.

6.0 THE ASSESSMENT PROCESS

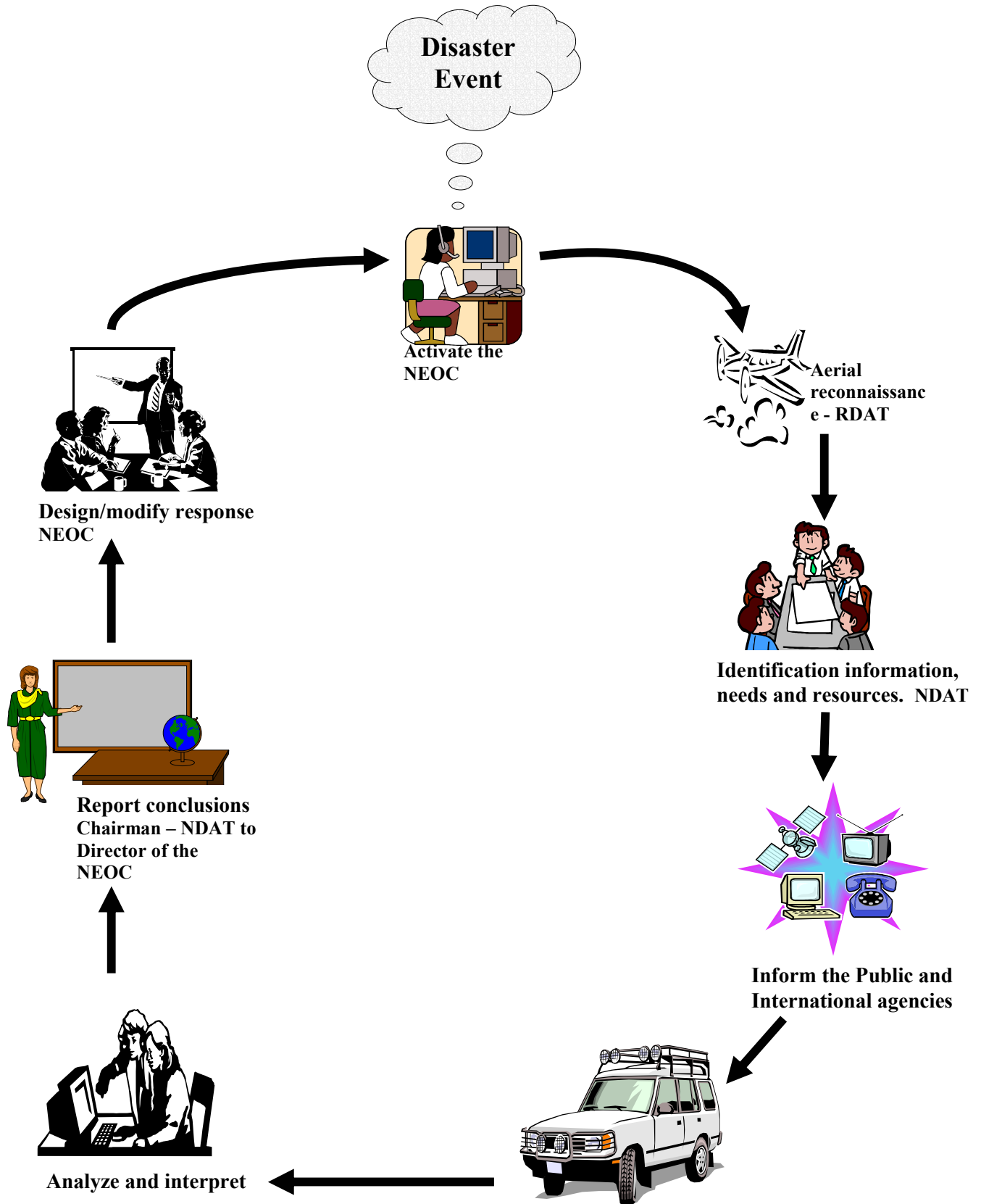
This is designed to assist the National Emergency Operations Centre and/or the Parish Emergency Operations Centre in its decision-making process. The assessment process is important because it helps to:

- Determine the impact of the event on the island; and its people;
- Determine the needs and priority areas for assistance;
- Identify the resources available and what can be accessed for recovery.

The five components of the process are:

- a) Information, needs and resources identification
- b) Data gathering
- c) Data analysis
- d) Reporting
- e) Response
- f) Deactivation

Figure 1. THE ASSESSMENT PROCESS



Source: UNDP Damage Assessment Process

6.1 Information, Needs and Resources Identification

This is the first stage in the assessment process. It involves the recording of the emergency event, identification of the resources, which will be required based on the reports, anticipating the needs of the person in the affected areas and estimating the magnitude of the event.

6.2 Data Gathering

This stage is concerned with the confirmation of the reported event, identifying, characterizing and quantifying the populations at risk as a result of the disaster.

6.3 Data Analysis and Interpretation

Stage 3 focuses on the analysis of the data collected to:

- a) Define and prioritize the actions and resources needed to reduce suffering and deaths;
- b) Identify the existing local and functional response capacity;
- c) Anticipate future immediate problems.

This involves the use of the GIS systems and/or any other such analytical programmes.

6.4 Reporting

Stage 4 of the process relates to the information analyzed in stage 3. The results of the analysis will be sent to the relevant response local agencies for their immediate attention.

International agencies and governments should also be contacted and informed of the disaster incident and the initial results from the data gathering.

6.5 Response

This is the final stage of the assessment process and it entails the enforcement of the pre-designed disaster response plans. This stage is also concerned with the re-designing or modification of existing plans as the situation deteriorates or improves.

6.6 Deactivation

On deactivation of the NEOC the DARR sub-committee of the NDC will assume the functions of the NDAT. The DARR sub-committee will guide the rehabilitation and recovery process according to the Recovery and Rehabilitation Sub-plan of the National Disaster Plan.

7.0 Reporting Procedures

7.1 Damage Assessment Reports

For each type of assessment there are three different types of reports, which are listed in the table 7.1 below. Each assessment report requires its own individual form. These forms are essential in determining to the Emergency Response Relief and Short – term.

These instruments are designed to assess:

- i. Life threatening situations by the provision of search and rescue;
- ii. The need for emergency food, water, shelter, medicine and medical assistance;
- iii. The need for restoration of critical facilities and services, and
- iv. The need for removal/clean up of debris and
- v. The restoration of basic utilities.

Table 7.1 Types of Assessment Reports for Emergency Relief and Short-term Restoration

Type of assessment	Time Period	Purpose
Local Situation Report	12-24 hours after the disaster has occurred	To provide information on overall damages and casualties and needs to permit allocation of critical supplies in the first 72 hours after a disaster
Parish Situation Report	12-24 hours after disaster occurs	To summarize data on overall damages and casualties by parish.
National Damage Assessment Report	1-7 days after disaster	Updates information reported on Situation reports and provides more details on damage in order to continue the allocation of emergency resources

8.0 Notification

The ODPEM will notify the National Disaster Committee and the Parish Disaster Coordinators as follows:

- a) In the event of a hurricane 24-48 hours before expected impact.
- b) In cases of flooding, immediately.
- c) In cases of reported landslides, immediately.
- d) After a major fire, immediately.
- e) After a major earthquake as soon as possible (time frame should not exceed a 4 hour limit).

Fig 2 shows the direction of communication from the National Disaster Executive to the different Disaster Assessment teams. This chart demonstrates the communication network during a large scale and a small-scale scenario.

9.0 Activation

The Director General of ODPEM in conjunction with the Chairman and/or the Vice-Chairman of the National Disaster Committee (NDC) will activate the plan, either partially or fully based on the following:

- i) Once either one or more Parish Disaster Response Mechanisms have been overwhelmed.
- ii) Once there is the receipt of any Situation Reports indicating that a major incident has occurred.
- iii) The number of calls received from affected residents will also help to decide if the plan is to be activated.

9.1 Call out Procedure

B. Disasters with a long warning period e.g. hurricanes, drought and epidemics.

The Director of the NEOC will notify the Chairman of the National Damage Assessment Recovery and Rehabilitation Sub-Committee. The Chairman will then call out the National Damage Assessment Team, who will report to the NEOC.

C. Disasters with little or no warning period e.g. earthquakes, flash floods and landslides.

The Office of Disaster Preparedness and Emergency Management, the Public Works Department, the Jamaica Public Service and any other specially named agency; will identify persons to serve on the Rapid Damage Assessment Team. These persons will contact the NEOC based on the notification procedures listed above. If the

communication linkage with the NEOC is severed, then these persons are to report to the Jamaica Defence Force - Air Wing as soon as possible.

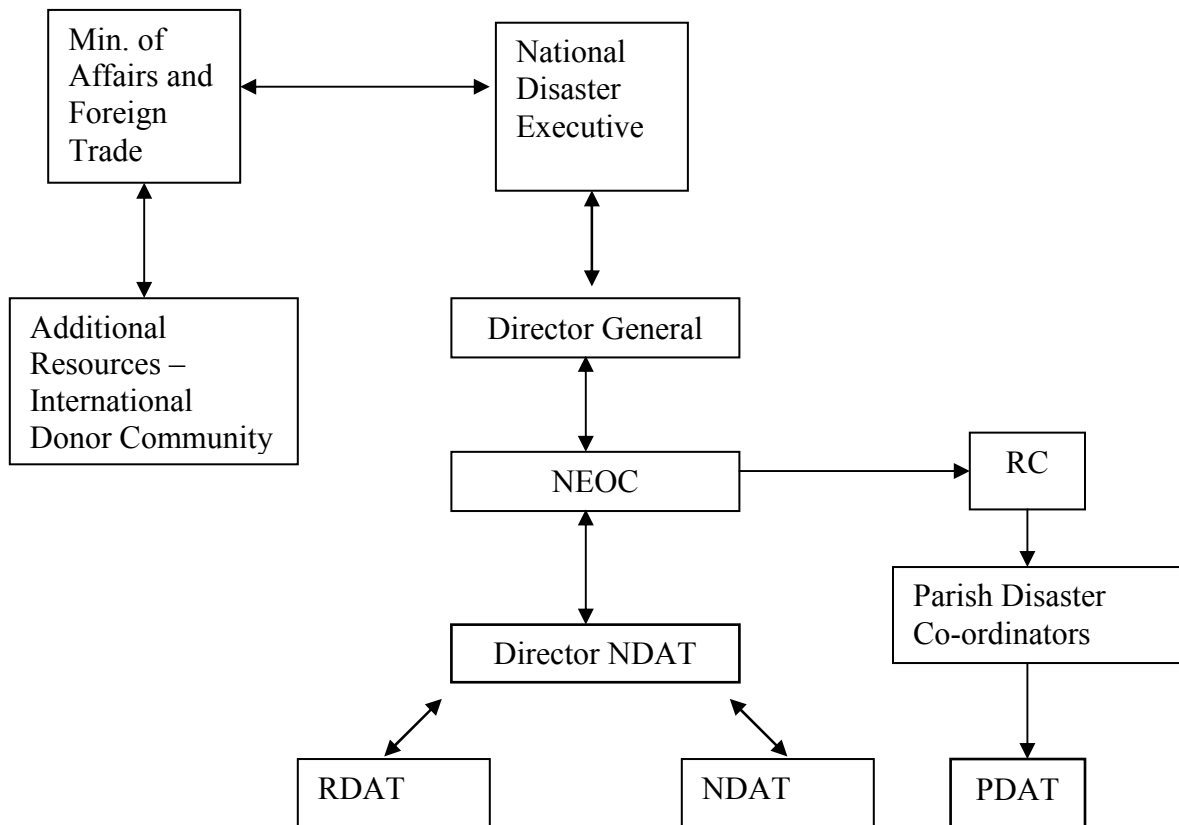
9.2 Dispatch of Team

Teams will be dispatched at the discretion of the Director of the NDAT, in consultation with team members, and may be dispatched either individually or jointly. Each team will be required to provide the Director of the NDAT with a copy of its itinerary (field assessment schedule) for the next day in order to allow for the optimum use of the resources available.

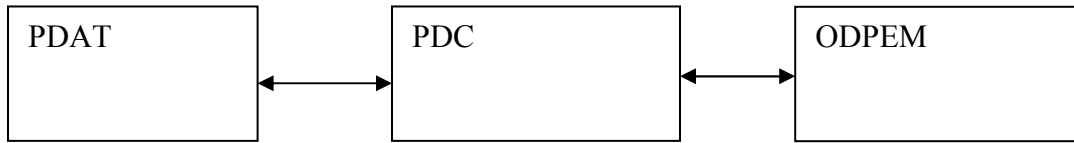
10.0 Reporting

Damage Assessment Teams would proceed to damage sites with the necessary communication equipment. The team will use the communication facilities existing within the group/centre.

**Figure 2. Communication Flow chart
Large Scale Disasters (Islandwide)**



Small Scale Disasters (Parish Level)

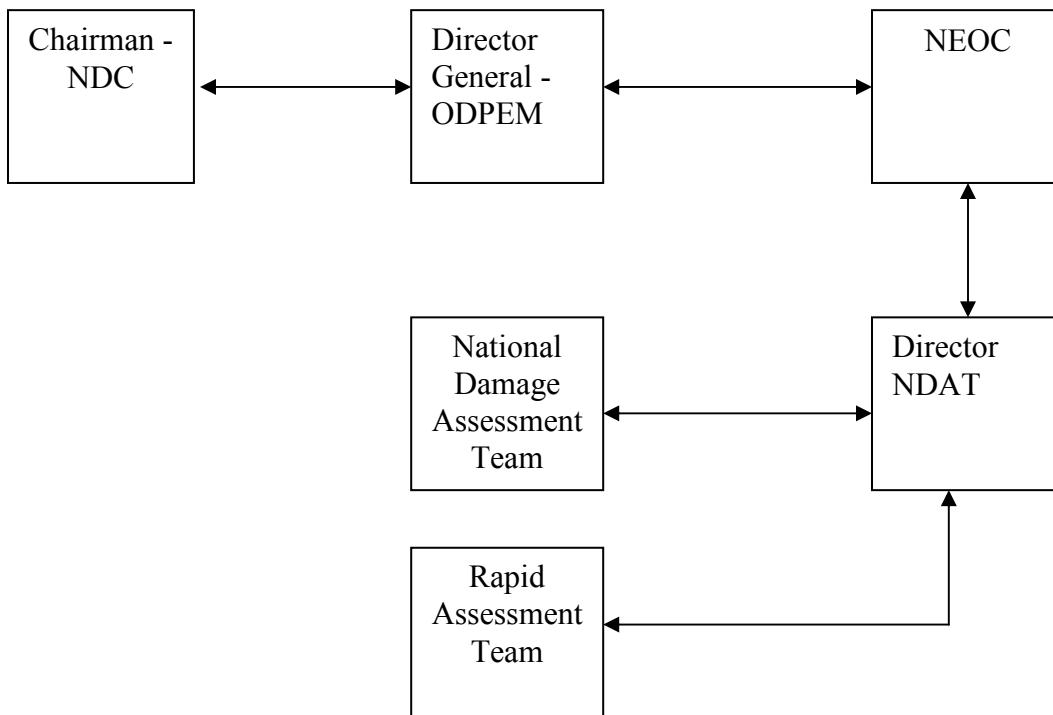


11.0 Reporting Relationships

The diagram below is a graphic representation of the teams responsible for collecting and preparing damage assessment reports.

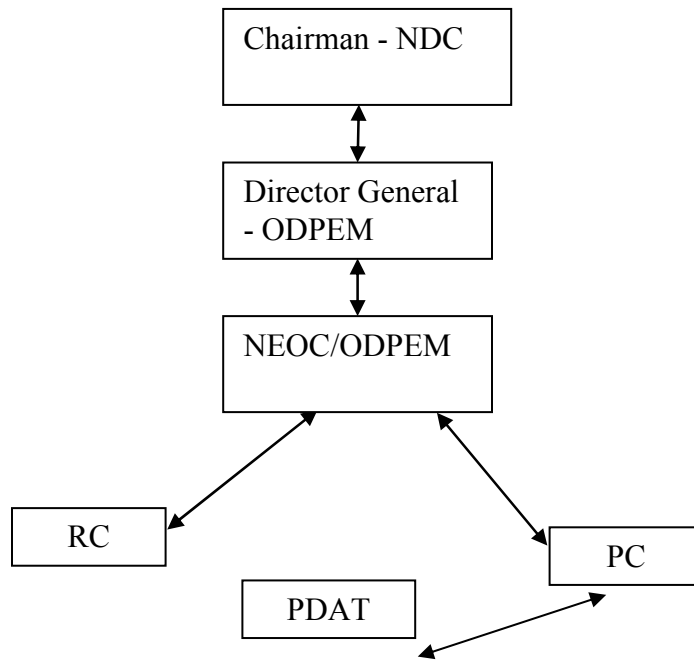
Reporting Relationships for Large-scale Events

1. Islandwide – 2 Counties (8 parishes and more)

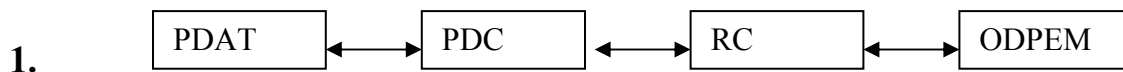


OR

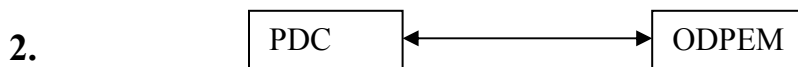
2. **REGION** – 2 or more parishes, but less than 2 Counties



Reporting Procedure for Small Scale Events

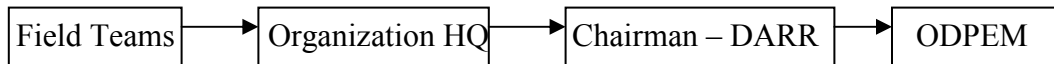


OR



12.0 Deactivation

The Director of the NDAT, who will be operating from the NEOC, will in conjunction with the Director of the NEOC (or the Director General – ODPEM) decide when to deactivate the teams. If the NEOC is deactivated before the damage assessment process is completed then the field teams will report to their local headquarters. These reports will then be sent to the Director, Chair of the National Damage Assessment, Recovery and Rehabilitation Sub-committee. The diagram below shows the expected communication flow.



13.0 Agencies and their Responsibilities

Table 13.1 below lists the members of the National Damage Assessment Team and the role and responsibilities of these agencies.

Table 13.1 National Damage Assessment Team members and their responsibilities

Agency	Roles and Responsibilities
Jamaica Institution of Engineers	To provide a pool of resources from which the NEOC can draw upon to assist in the damage assessment process.
Utility Companies	To provide report on the extent of damage incurred to the utilities sector and estimated time for repair of damage facilities.
Jamaica Constabulary Force	To maintain law and order; to provide security for Damage Assessment Team to provide reports of alternative routes where possible; to provide initial reports of damage as well as general situation reports and information on the damage sustained to all JCF facilities.
Ministry of Agriculture	To identify and record the extent of damage to agricultural crops, holdings and industries
Ministry of Local Government and Community Development	To ensure the activation of PEOC and coordination of all activities at Parish Level.
Jamaica Fire Brigade	To provide qualitative and quantitative analysis of the situation, to provide hazardous material incidents and search and rescue reports.
Ministry of Health –	To identify pending medical outbreaks/potential medical emergencies and on the damage sustained to all health facilities. This should include all medical storage facilities.

Ministry of Transport and Works –	To identify the most affected areas, prioritize areas for the deployment of relief and welfare workers and to identify sites for the establishment of welfare registration centres. To provide report on infrastructural damage and to governmental facilities.
Ministry of Education and Culture	To do damage assessment on educational facilities, advise on the ability to be used as shelter and when the facilities can be re-opened.
Mines and Geology Division	To provide geological information about high risk areas.
STATIN	To provide field personnel to assist in data collection and to provide reports.
Ministry of Labour, Social Security and Sports.	To assess and quantify the welfare needs of the affected families and recommend assistance.
Planning Institute of Jamaica	To coordinate the development of sectoral recovery and rehabilitation plans.
Water Resources Authority	To provide information on state of underground water facilities
Meteorological Service	To collect data on rainfall amount and intensity, to monitor and provide information on weather conditions.
The Port Authority of Jamaica	To assess the condition/damage done to port facilities and indicate availability for use.
Jamaica Defense Force	To provide reconnaissance service
Earthquake Unit	To monitor and provide information on the intensity, magnitude, epicentre and depth of all earthquake tremors
Airports Authority	To provide information on the status of the airports
NEPA	
Ministry of Water and Housing	To monitor and provide information on housing stock across the island.
Building Societies Association of Jamaica/JAGIC	To provide information on status of Housing Stock

Source: ODPEM

14.0 Activities according to Phases of Disaster Management

Activities for the Damage Assessment Team were divided into two sets according to the phases of the disaster management system. The two phases that are applicable to the damage assessment are Preparedness and Response. The table below highlights the activity associated with the phase and the agencies responsible for performing these activities. The agencies are listed in order of priority, that is those with the primary responsibilities are listed first (1), secondary agencies are next (2) and support agencies are last (3).

Table 14.1: Preparedness activities associated with the Damage Assessment Process

ACTIVITY	AGENCIES RESPONSIBLE
a) Recording the emergency event Acquire the equipment required to record the data. Install and/or upgrade equipment	(1) Met. Service / Earthquake Unit / WRA. (2) ODPEM
b) Identification of resources for conducting damage assessments in the field	(1) NDAT (2) ODPEM
c) Anticipating the needs of the population most vulnerable	(1) MOH / MLSS / STATIN.(2) MOA. (3) ODPEM / WRA / Mines & Geology Division
d) Estimating the magnitude of the event i.) Training	(1) NDAT / RDAT. (2) ODPEM / Met. Service / Earthquake Unit / MOH
ii) Conduction of simulation exercise	(1) NDAT / ODPEM
Data Gathering	(1) NDAT / ODPEM
a) Characterizing vulnerable population	(1) MOH /MOA (2) STATIN / PDC. (3) ODPEM
b) Quantifying vulnerable population	(1) STATIN. (2) MOH / MOA / PDC. (3) ODPEM
Define and prioritize (actions) resources	(1) NDAT. (2) ODPEM
a) Identify the location of existing functional resources locally	(1) NDAT / ODPEM
b) Identify potential problem areas	(1) NDAT /ODPEM. (2) MOH / MOA
Reporting	
a) Review damage assessment forms	a) 1. NDAT / ODPEM
b) Conduct training sessions in their usage	b) 1. NDAT / ODPEM
Response	
a) Test time required by the teams to get activated and operating in the field	(1) NDAT / ODPEM
b) Test time required to file a properly completed damage assessment form	(1) NDAT / ODPEM

Source: ODPEM

Table 14.2 Response activities associated with the Damage Assessment Process

ACTIVITY	AGENCIES RESPONSIBLE
a) Record event	(1) Met. Service / Earthquake Unit. (2) ODPEM
b) Identify (collect) resources	(1) NDAT / PDAT (2) ODPEM / PDC
a) Anticipate needs of affected areas	(1) MOH / MOA / MLSS. (2) ODPEM / PDC
b) Estimate magnitude of event	(1) Met. Service/ Earthquake Unit / RDAT. (2) PDC
a) Confirm the event	(1) Met Service / Earthquake Unit/ RDAT
b) Identify, characterize affected population	(1) RDAT / MOH / MOA / PDC. (2)MLSS
c) Quantify affected population	(1) MLSS / PDC / STATIN
a) Define and prioritise resources	(1) NDAT / ODPEM
b) Identify existing local resources	(1) NDAT / ODPEM / PDC (2) MTW
c) Identify problem areas	(1) JCF / JIE / MTW. (2) Earthquake Unit / MOA / MOH. (3) ODPEM / PDC / NDAT
Reporting	
a) Report for the NDC	(1) Director General – ODPEM. (2) Director – NDAT
b) Report for the ODPEM	(1) Director – NDAT. (2) Individual agencies headquarters
c) Report for the PDC	(1) PDAT

Source: ODPEM

Key

- (1) Agencies with primary responsibility**
- (2) Agencies with secondary responsibility**
- (3) Agencies with support role.**

Appendices

- **List of Acronyms and Recognized Abbreviations**
- **Glossary**
- **Form 1- Situation Report Form**
- **Form 2 - Parish Situation Report Form: Damage Assessment of Critical Buildings**
- **Form 3 - National Damage Assessment Report Form: Critical Facilities/Systems Report**

LIST OF ACRONYMS AND RECOGNIZED ABBREVIATIONS

DARR – Damage Assessment Recovery and Rehabilitation

EU – Earthquake Unit

GIS – Geographic Information System

HAZMAT – Hazardous Materials

HQ – Headquarters

IMAJ – Incorporated Masterbuilders Association of Jamaica

JCF- Jamaica Constabulary Force

JDF – Jamaica Defence Force

JIE – Jamaica Institute of Engineers

MGD – Mines and Geology Division

MLSS – Ministry of Labour and Social Security

MOA – Ministry of Agriculture

MOE&C – Ministry of Education and Culture

MOFAaFT – Ministry of Foreign Affairs and Foreign Trade

MOH – Ministry of Health

MTW – Ministry of Transport and Works

NDAT – National Damage Assessment Team

NDC – National Disaster Committee

NEOC – National Emergency Operations Center

NGO – Non-Governmental Organization

NMS – National Meteorological Service

NWA – National Water Authority

ODPEM – Office of Disaster Preparedness and Emergency Management

PAJ – Port Authority of Jamaica

PC – Parish Coordinator

PDAT – Parish Damage Assessment Team

PDC – Parish Disaster Committee

PEOC – Parish Emergency Operations Center

PIOJ – Planning Institute of Jamaica

RC – Regional Coordinator

RDAT – Rapid Damage Assessment Team

STATIN – Statistical Institute of Jamaica

UDS/UWI – Unit for Disaster Studies

WRA – Water Resources Authority

GLOSSARY

Agency – a business or organization providing a particular service.

Assessments – evaluate or estimate the nature, value, or quality of.

Critical facilities – facilities that have a decisive importance in the success or failure of something.

Epicenter – the location on the surface vertically above the focus of an earthquake.

Geological – *adj. Geology*, the science which deals with the physical structure and substance of the earth.

Infrastructure – the basic physical and organizational structures (e.g. buildings, roads, power supplies) needed for the operation of a society or enterprise.

Lifeline facilities – facilities that are essential for the continued existence of someone or something or which provide a means of escape from a difficult situation.

Recovery – an act or the process of regaining control of (oneself or a physical or mental state).

Rehabilitation – restore to former condition

Resource – a stock or supply of materials or assets.

Restoration – the action of process of bringing back (a previous right, practice, or situation).

Utility – useful, especially through having several functions.

Vulnerable – exposed to being attacked or harmed, either physically or emotionally.

Form 1



SITUATION REPORT

EMERGENCY OPERATIONS CENTRE

EVENT:

DATE OF EVENT:

SITUATION REPORT NO.:

DATE:

TIME:

NATURE OF EVENT:

AREAS AFFECTED:

CASUALTIES:

ACTIONS TAKEN:

NEEDS ASSESSMENT:

WELFARE/RELIEF:

DAMAGE:

1. CRITICAL FACILITIES

- a) Hospitals/Health Centres:
- b) Police Stations:
- c) Fire Stations
- d) Electricity:
- e) Emergency Shelters
- f) Water:

2. INFRASTRUCTURE

- a) Roads
- b) Bridges
- c) Retaining Walls/River Training Works.

3. BUILDINGS

- a) Public Buildings
- b) Ports/Airports
- c) Private/Commercial
- d) Houses

4. AGRICULTURE

a) Crops/Livestock/Fisheries

5. TOURISM/COMMERCE/INDUSTRY

6. OTHERS

RESOURCES NEEDED:

ACTION TO BE TAKEN:

Contact:

E-Mail:

FAX#:

Form 2 Damage Assessment Report

This report is to be completed within 2-7days after the disaster has struck. This will be a detailed report containing updated information on damages to houses, roads, bridges, public utilities and private enterprises. The information gathered will be compiled in order:

- a) To assist the ODPEM and the National Disaster Committee in determining the magnitude of damage and estimating resources needed to recover from the disaster.
- b) To assist the ODPEM and the National Disaster Committee in coordinating the allocation of additional resources to respond to the disaster or emergency and to begin short-term restoration of damaged facilities and disrupted services.

It will also be used to assist in the coordination and allocation of the available resources for the resumption and short-term repair to damaged facilities.

A detailed assessment of damages incurred requires sector specific knowledge and the knowledge of pre-disaster conditions. Damage assessment teams should have representatives from the affected areas, as well as representatives from the respective sectors.

For large-scale disasters the National Damages Assessment Team will be activated and this group will have the responsibility of collecting damage assessment information. In assessing disaster events of a smaller magnitude, that is, within a parish, the Parish Disaster Coordinator will have the primary responsibility for preparing the Damage Assessment report. The data collection, for this report will be the responsibility of the Parish's Damage Assessment committee. In cases where the event affects more than one parish, the Regional Coordinator is expected to submit the final damage assessment report. The respective Parish Disaster Coordinator should supply this information.

This form is to be complete as soon as possible using, the most accurate estimate available at the time of completion. It is to be used to report data for communities and or districts. In the event of large disasters information collected for each community/district is to be summarised and a total submitted for each parish. When the form is being used to submit a summary for a parish, a listing of all the towns involved is to be attached to the back of the form.



Form 2

DAMAGE ASSESSMENT OF CRITICAL BUILDINGS



Date _____ Time _____ Inspector _____

A. BUILDING LOCATION

- 1. Address _____
- 2. Parish/Community _____
- 3. Owner _____ Tel. No. _____
- 4. Occupancy/Use _____

a. Public Buildings

- Cinema Community Centre City/town Hall
- Church Court house School
- Lecture Hall Theatre
- Other (please state) _____

b. Institutional Buildings

- Hospital Prison Orphanage
- Infirmary Other (state) _____

c. Commercial and Industrial Buildings

- Power Station Warehouse Commercial Laboratory
- Factory Aeroplane hangar
- Other (state) _____

d. Office, Administrative and Retail Service Buildings

- Banks Office Market/Shop/Store
- Civil Administration Radio/TV station
- Other (state) _____

e. Residential Buildings

- Apartment Guest house Halls of Residence
- Dormitory Private residence Tenement
- Hotel/Motel Other (state) _____

f. Buildings used for storing and/or processing hazardous materials

Hazardous material(s) stored _____

Hazardous material(s) process _____

B. DESCRIPTION OF BUILDINGS

Type of Construction

- | | | |
|--|--|--|
| <input type="checkbox"/> Steel frame | <input type="checkbox"/> Bearing wall | <input type="checkbox"/> Reinforced concrete |
| <input type="checkbox"/> Wood frame | <input type="checkbox"/> Pre-cast concrete | <input type="checkbox"/> Block & steel masonry |
| <input type="checkbox"/> Brick masonry | <input type="checkbox"/> Wattle & daub | <input type="checkbox"/> Timber stud & hor. boarding |
| <input type="checkbox"/> Other (state) _____ | | |

Number of Stories _____

Typical Floor Area _____

Total Building Area _____

Type of foundation used

- | | | |
|--|----------------------------------|------------------------------------|
| <input type="checkbox"/> Striped | <input type="checkbox"/> Assumed | <input type="checkbox"/> Confirmed |
| <input type="checkbox"/> Pile | <input type="checkbox"/> Assumed | <input type="checkbox"/> Confirmed |
| <input type="checkbox"/> Pad | <input type="checkbox"/> Assumed | <input type="checkbox"/> Confirmed |
| <input type="checkbox"/> Raft | <input type="checkbox"/> Assumed | <input type="checkbox"/> Confirmed |
| <input type="checkbox"/> Other (state) _____ | | |

C. CONSTRUCTION

1. Exterior Walls

- | | | |
|--|--|--|
| <input type="checkbox"/> Wooden | <input type="checkbox"/> Nog | <input type="checkbox"/> Block & steel masonry |
| <input type="checkbox"/> Reinforced concrete | <input type="checkbox"/> Pre-cast concrete | |
| <input type="checkbox"/> Other (state) _____ | | |

2. Roof

- | | |
|---|--|
| <input type="checkbox"/> Reinforced concrete slab | <input type="checkbox"/> Pre-cast concrete |
| <input type="checkbox"/> Steel Framing and sheeting | <input type="checkbox"/> Timber framing & sheeting |
| <input type="checkbox"/> Other (state) _____ | |

3. Floors

- | | | |
|---|--|-------------------------------------|
| <input type="checkbox"/> Pre-cast concrete | <input type="checkbox"/> Wooden | <input type="checkbox"/> Steel Deck |
| <input type="checkbox"/> Reinforced concrete slab | <input type="checkbox"/> Other (state) _____ | |

4. Interior Walls

- Block & steel masonry Brick masonry Wooden
 Reinforced concrete Pre-cast concrete
 Other (state) _____

5. Partions

- Glass Bagasse Wooden
 Gypsum Panel Other (state) _____

6. Stairs

- Steel Wooden Reinforced concrete
 Other (state) _____

D. DAMAGE NOTED

ELEMENT	NONE	SLIGHT	MODERATE	SEVERE	TOTALLY DAMAGED
Exterior walls					
Frame general					
Frame members					
Frame connections					
Roof					
Floors					
Interior walls					
Partitions					
Stairs					
Foundations					
Falling Hazards					
Mechanical Equipment					
Elevators					
Glass					
Plumbing					
Electrical					

E. DEGREE OF DAMAGE TO BUILDING

	Yes	No
Minor – No Hazard	<input type="checkbox"/>	<input type="checkbox"/>
Damaged	<input type="checkbox"/>	<input type="checkbox"/>
Major Hazard	<input type="checkbox"/>	<input type="checkbox"/>
Severe Hazard	<input type="checkbox"/>	<input type="checkbox"/>
Safety jeopardised by unsafe adjacent building	<input type="checkbox"/>	<input type="checkbox"/>
Building damaged by fire	<input type="checkbox"/>	<input type="checkbox"/>
<u>Falling Hazards:</u>		
Boiler Ducts/Pipes	<input type="checkbox"/>	<input type="checkbox"/>
Fascade	<input type="checkbox"/>	<input type="checkbox"/>
Verandahs	<input type="checkbox"/>	<input type="checkbox"/>
Antennae	<input type="checkbox"/>	<input type="checkbox"/>
Elevated Water Tanks	<input type="checkbox"/>	<input type="checkbox"/>
Ornamentation	<input type="checkbox"/>	<input type="checkbox"/>
Light Fixtures	<input type="checkbox"/>	<input type="checkbox"/>
Ceilings	<input type="checkbox"/>	<input type="checkbox"/>
Air conditioning ducts & condensers	<input type="checkbox"/>	<input type="checkbox"/>
Cabinets	<input type="checkbox"/>	<input type="checkbox"/>
Transformers	<input type="checkbox"/>	<input type="checkbox"/>

F. SUMMARY OF STRUCTURAL DAMAGE

	Yes	No
Minor	<input type="checkbox"/>	<input type="checkbox"/>
Slight	<input type="checkbox"/>	<input type="checkbox"/>
Moderate	<input type="checkbox"/>	<input type="checkbox"/>
Severe	<input type="checkbox"/>	<input type="checkbox"/>

G. SUMMARY OF NON-STRUCTURAL DAMAGE

	Yes	No
Minor	<input type="checkbox"/>	<input type="checkbox"/>
Slight	<input type="checkbox"/>	<input type="checkbox"/>
Moderate	<input type="checkbox"/>	<input type="checkbox"/>
Severe	<input type="checkbox"/>	<input type="checkbox"/>

H. SOIL AND GEOLOGIC PROBLEMS

	Yes	No
Settlement	<input type="checkbox"/>	<input type="checkbox"/>
Liquefaction	<input type="checkbox"/>	<input type="checkbox"/>
Landslide	<input type="checkbox"/>	<input type="checkbox"/>
Faults	<input type="checkbox"/>	<input type="checkbox"/>
Others (state) _____		

I. PHOTOGRAPHS

	Yes	No
Photographs taken	<input type="checkbox"/>	<input type="checkbox"/>

No. of rolls/frames taken _____

J. ESTIMATED COST OF DAMAGE

Building area _____
Estimated building valuation _____
Estimated percent damage _____
Estimated valuation of damage _____

K. RECOMMENDATIONS

Total Demolition of building Yes No
Shoring and Bracing
 Not needed
 Needed to protect building
 Needed to protect adjacent building
 Needed to protect public safety
Re-inspection required Yes No

Inspector's signature: _____

Prepared by _____

Source: Ralph Field

DEFINITIONS

DESTROYED - means the item is a total loss or damage is to the extent that it is no longer usable and that, repairs are not technically or economically feasible

MAJOR DAMAGE - means the item is damaged to the extent that it is no longer usable. or is usable under limited conditions or reduced levels of service and in either case it may be returned to service with extensive repairs.

MINOR DAMAGE - means the item is damaged but may either be used for the intended purpose, or may be restored to service with minimal repairs.

National Damage Assessment Report

This report is to be completed within 2-7 days following the disaster and is to be used only for critical facilities after the initial situation report has been submitted. It is to be completed by the respective sectors and/or essential services and sent to the NEOC/ODPEM.

The objective of this report is to help the NEOC/ODPEM in determining the basis for the allocation of the available manpower and equipment. It also serves as a guide to both the ODPEM and the NDE to the critical facility (facilities) requiring the most immediate assistance.

The completion of this report form requires technical expertise and henceforth it is to be completed by experts within the respective sectors. If the National Damage Assessment Team is activated, it will have the responsibility for collecting data on the repair needs of the critical facilities within the area(s) assigned. The nature and scale of the event would determine the composition of the team. If the parish damage assessment team is activated its primary purpose will be to collect data on the critical facilities within the affected areas. Like the Rapid Damage Assessment Team, the composition will vary depending on the size and the nature of the event.

A separate form is to be completed for each critical facility/system. However, the following is to be specified as appropriate:

- a) Water Supply System – storage area and/or source.
- b) Electricity producing plants – type of power generating facility and size of transmission lines.

FORM 3 CRITICAL FACILITIES/SYSTEMS REPORT

Name of Facility: _____

Location of Facility: _____

Type of Facility: _____

Parish &/or Region: _____

Date: _____ Time: _____ Inspector: _____

Location of Problem/ Damage	Description of Damage	Type &/or Extent of Damage	Equipment	Personnel	Supplies	Repair Urgency

Prepared by _____
Source: Ralph Field