A National Land Search and Rescue Plan (LSAR) for Guyana has been developed.

The LSAR is a component of the wider Guyana Search and Rescue Plan, which has three distinct components:

i) LAND SEARCH AND RESCUE

ii) AIR SEARCH AND RESCUE

iii) MARINE SEARCH AND RESCUE

OBJECTIVES:

The objectives of the LSAR are to:

a) Mobilize and coordinate timely national response to terrestrial events requiring SAR operations;

b) Eliminate or ameliorate, as far as practicable, the immediate consequences of terrestrial events requiring SAR response.

TEAM ORGANIZATION

The National LSAR teams will be comprised of personnel encompassing specialized skills in critical areas of search, rescue, Medical Care, Technical Assistance, Logistical Support and Investigation. The LSAR team has two components, the Search and rescue team (SAR Team) and the Medical Response Team (MRT). Each component of the team will be led in the field by a pre-designated team leader. Team members will be drawn from the agencies as follows:
PROCEDURE

The focal point of the LSAR will be Police Force Control.

1) After receiving information on a SAR incident, the officer in charge of Force Control, or in the absence of the officer in charge, the most senior rank, will inform the Commissioner of Police of the incident.

2) The Commissioner of Police in consultation with the National Disaster Coordinator or other competent authority will invoke the LSAR plan.

3) Call out proceedings will be initiated when the SAR team and MRT leaders are notified by the Commissioner of Police of the LSAR plan being invoked.

4) Upon activation, the Director of the Emergency Operations Centre (EOC) will retain responsibility for oversight and coordination of national LASR response.

5) The EOC team will be comprised of the EOC and support agencies as determined by the specific land based SAR event.

6) The Incident Command System (ICS) will be utilized as the on site command and control mechanism.
7) Utilizing the principles of the ICS, an Incident Commander, will head the **Incident Command Post (ICP)**. The Incident Commander will manage the event in keeping with the principles of the ICS and will convey information on the event status and response needs to the EOC.

8) The designated LSAR team and MRT leaders will oversee the operation of the LSAR team in the field and report to the Incident Commander.

9) The decision to de-activate the LSAR Operations will be made by the Commissioner of Police after due consultation with the Director of the EOC.

**TEAM MANAGEMENT AND FUNCTIONS:**

1. **Director of the National Emergency Operations Centre (NEOC)**

   Functions:
   
   i) Oversee national LSAR response,
   
   ii) Responsible for overall coordination in national LSAR response
   
   iii) Interacts with the media and issue press release on LSAR incidents
   
   iv) Reports to the political leadership on the status of LSAR responses.

2. **Incident Commander**

   Function:
   
   i) Oversee and directs LSAR operations in the field;
   
   ii) Focal point for collection and dissemination of field information;
   
   iii) Prepares status of operations reports and relays same to the Head of EOC
   
   iv) Relays requests for operational support to the Head of EOC;
   
   v) Coordinates briefing and debriefing of LSAR Team;
   
   vi) Makes recommendation to Head of EOC to demobilized LSAR Teams
3. **LSAR Support Team**

Function:

i) Provides support to the overall search and rescue mission to include: logistics, communications, mobilization, demobilization, staging, triaging, transportation, safety, nutrition and shelter. Assist the SAR Team and MRT Leaders with short and long range planning for LSAR Team operations.

ii) **Composition:**

   Logistics Officer:

   Functions:

   i) Oversee and directs the operations of the support team involved in providing support to the overall search and rescue mission to include: logics, mobilization and demobilization.

   ii) Provide inventory control of specialized equipment and supplies maintained in the LSAR Team equipment cache.

   iii) Responsible for the provision of portable shelter to the LSAR Team as required;

   iv) Coordinate mobile feeding units for LSAR Team.

B. **Communication Officer:**

Function:

Maintains, configures, distributes and trains personnel on all communication equipment in the LSAR Team cache. Equipment includes local hand held and repeater system, high frequency short wave and satellite systems, for voice and data transmission.

C. **Transportation Officer:**

Function:

Coordinates transportation of LSAR Teams personnel and equipment, victims rescued and bodies recovered.
D. Safety Officer:

Function:

Oversees all operations in relation to search and rescue safety requirements. Implements safety measures within operational situations.

E. Triage/Medical Officer:

Function:

Oversees and directs the triaging of patients delivered to the triage sector. Prioritizing patient transport to the correct receiving hospitals and facilities for care.

F. Staging Officer:

Function:

Oversees and directs the receipt, display, dissemination, tracking and storage of all vehicles and equipment.

4. SAR Team Leader-

Functions:

i) Oversees and directs the overall operations of the SAR Team including the operations of the SAR Team in the field.

ii) Manages deployment of SAR Team in the field
Search and Rescue Team Members

Functions:

i) Evaluate compromised areas
ii) Stabilize structures
iii) Utilize appropriate search techniques to locate trapped victims
iv) Extricate live victims
v) Provide emergency medical care to victims
vi) Provide support to the overall search and rescue mission to include: hazardous materials evaluation, structural integrity assessments, and technical documentation
vii) Coordinate operations of heavy equipment, such as cranes, backhoes and other equipment needed to move heavy portions of structures during rescue operations.

Composition

The SAR Team will contain 5 persons. Personnel will be sourced (depending on the event) from Guyana Fire Service, Guyana Defence Force, Guyana Police Force, Guyana Prison Service, Ministry of Public Works, Ministry of Health, GRA – Customs and Trade Administration, CANU, Guyana Civil Aviation Authority, CJIA, TH&D, Guyana Red Cross Society, Aircraft Owners Association, and trained in the critical search, rescue, technical and medical aspects of SAR.

Search Techniques: Physical search techniques, electronic search, structural collapse,

Rescue Techniques: high angle rescue (rope rescue), confined space rescue, collapse structure, confined space rescue and vehicular rescue/extrication, trench collapse, flood/swift water, rough terrain.

Technical Skills: Hazardous materials, heavy rigging and equipment operation, structural specialist.

5. Medical Response Team:

1) Medical Response team (MRT) Leader

Function:

i) Oversees and directs the operations of the medical response team.
ii) Responsible for managing and supervising the medical function of the MRT during incident operations.
2) Medical Team Members

Functions:

i) Responsible for performing the medical function of the LSAR Team incident operation.

ii) Provide pre-hospital and emergency care for LSAR Team members and victims to include crush syndrome/confined space medicine.

iii) Responsible for minimizing health risk and limited treatment or hazardous materials exposure, for task force personnel.

iv) Debrief and counsel LSAR Team Members and Victims: critical incident stress debriefing.

Composition: members may be drawn from the medical personnel of the Ministry of Health and non-government organization with a Health care mandate.

Treatment Priorities

The treatment priorities for the MRT are:

- **First** – the LSAR Team personnel, and other assigned support staff including K – 9 equine care.
- **Second** – victims directly encountered by the LSAR Team.
- **Third** – other persons as possible.
- It is not intent of the MRT to be a freestanding medical resource at the disaster site. Capable local medical systems will be considered the primary providers of general medical care to disaster victims.
ACTIVATION PHASE

The MRT Leader must address several issues when the LSAR Team is activated for a mission.

- Additionally, necessary information concerning infectious disease and other health related issues specific to the disaster area should be gathered.

All LSAR Team members should have identification documentation on file that includes pertinent personal information to assist in deployment activities. Information required would include the member’s name, address, telephone numbers, blood type, emergency contact, medical history, immunization records, etc. Other actions include:
  - A review of each member’s personal information
  - Team personnel passing a physical exam
  - Team personnel having current inoculations for affected area(s).

The MRT Leader, in conjunction with the SAR Team Leader, should review the functions, tasks and assignments for the mission. All LSAR Team member should be briefed on the indigenous environmental conditions and health concerns in the affected disaster areas, including a review of stress and health maintenance issues.

IN TRANSIT PHASE

Home Base to Affected Area

- Appropriate life support supplies must be available to the MRT at all times.
- Certain elements of the medical equipment stock should be prioritized for initial movement to the assigned area of operations.
**Operations Phase:**

It would be beneficial to identify and meet with the local medical authority of the affected area and the senior authority for medical operations at or supporting the work site.

The medical plan should include:

- Objectives
- Strategies and tactics
- Contact with local medical system
- Resources availability
- Re-supply needs
- Disease victim management
- Indigenous health concerns
- Local victim transfer of care
- Team member evacuation process
- Air/marine evacuation contingencies

The **MRT** Leader should coordinate with the appropriate officials on:

- The potential for hazardous materials contamination or other exposures.
- Decontamination information for various contaminates or exposures.
- The treatment options for general hazardous materials exposures.

Close coordination between **SAR** Team and **MRT** member is important to ensure a safe effective operation and optimal patient care.

Rescue operations must be monitored for potential impact on trapped victims, and rescuers of dust, carbon monoxide generation, oxygen consumption, etc. Medical actions to prevent these situations may be necessary.

It is expected that under normal circumstances some medical equipment will be a limited resource and will not leave the work site with patients. A high priority is placed on maintaining such assets at the operational work site for the continued protection of **LSAR** Team personnel and other victims being extricated. The organization responsible for patient transportation and follow-up medical care should be prepared to provide such equipment, if necessary, for patients transfer to a medical facility.
Patient Documentation

Patient and team members’ physical assessment and/or medical intervention performed by the MRT must be documented.

- This document would also be used to record any real or perceived chemical or biological exposures, with a copy made available when a patient is transferred from the team’s control to other medical systems.
- The MRT must maintain a copy of each completed document for the files,
- A patient treatment log must be maintained.

Medical Care and Evacuation of Injured LSAR Team Members:
The LSAR Leader shall:

- Evaluate the team member’s injury or illness;
- Treat as necessary;
- Recommend the team member’s duty status/capability to perform;
- Evacuate as appropriate, if necessary;
- Investigate and document the occurrence;

Death of a LSAR Team Member

The MRT Leader shall:

- Verify the identity and confirm death (Note: death may have to be confirmed by appropriate national legal authority);
- Secure remains and personal effects;
- Investigate and document the cause of death;
- Forward information to appropriate officials;
- Evaluate the effects on the LSAR Team;

LSAR Team personnel must conduct round-the clock (24-hours operations).

More than one LSAR Team may be deployed and functioning in one area of operations.

The SAR Team and MRT leaders may, in consultation with the Incident Commander, add or edit the number of personnel within any team as appropriate, to accomplish a mission.
LSAR Team Mobilization

CALL OUT

Following the decision to invoke the national LSAR response mechanism, the Commissioner of Police is responsible for issuing activation orders to the SAR Team and MRT Leaders.

In rapid onset events, the Commissioner of Police may advise the Head of the EOC that the team will be mobilized and proceed with issuing activation orders to the SAR Team and MRT Leaders.

The SAR Team and MRT Leaders are the single designated points of contact to receive all official notification from the Commissioner of Police. SAR Team and MRT Leaders must be available by telephone and facsimile 24 hours a day everyday. The SAR Team and MRT leaders retain responsibility for call out of the team members.

ACTION ON CALL OUT

Upon call out, LSAR Team members should collect their full personal; kit/equipment cache and proceed to the point of assembly (The Hatchery). Each member of the LSAR Team is required to have the capability to be at the designated assembly point within one hour of receiving the Activation Order.

Point of Assembly:

The point of assemble will be the Civil Defence Commission’s Office, (The Hatchery), Camp Ayanganna Annexe, Thomas Lands Road, Thomas Lands, Georgetown. (Where all personnel report for check-in and briefing on activation. All aspects of the mobilization process will be done at this location. The facility should be equipped with telephone and facsimile. At this point, check-in stations will be set up to process personnel sign-in and personal equipment inspection).

Each SAR Team and MRT Member information sheet should be checked at sign-in for accuracy and an emergency contact name and telephone number.
TEAM PLANNING

The Incident Commander, in conjunction with the SAR Team and MRT Leaders and LSAR planning support (Logistics, Transport, Communications, Safety, Triage/Medical and Staging Officers); will develop information on the incident from credible sources (including official and media sources). This will include researching the incident area and obtaining topographical maps of the area as required.

Reconnaissance of the affected area(s) will be carried out by a designated reconnaissance team before framing an initial LSAR response plan.

The designated reconnaissance team should include but not be limited to the SAR Team and MRT Leaders.

Team Briefing:

Once all personnel are checked in, the SAR Team and MRT Leaders will brief the entire team. The objectives of the briefing are to:

i) Outline the Mission Objectives;
ii) Provide up-to date information to team members;
iii) Inform team members of the agreed LSAR operations and development plan.

TEAM TRANSPORT:

Transportation required to move the LSAR Team should be identified during the development of the initial LSAR plan. The designated transport officer should coordinate transportation, liaising with Government or Non-Government Organization as necessary.
Communications and Information Flow Procedures

The deployed LSAR Team(s) will usually communicate with the Incident Commander at the ICP using all possible means of telecommunications services available (HF, UHF, VHF, CB, Cellular, SATCOM). Predetermined frequencies should be used in all cases.

SAR Team and MRT Leader(s) convey information directly to the Incident Command Post. Incident Command collates and analyses information and passes on to EOC for dissemination to political leadership and the media.

LSAR TEAM SEARCH AND RESCUE STRATEGY
(STRUCTURAL COLLAPSE)

STEP 1: Initial reconnaissance may need to be performed prior to beginning search and rescue operations:

Required Action:

i) Identify structures affected;

ii) General area assessment, that is, to identify separate buildings which have high potential for viable resource opportunities. This may include building of high occupancy such as hospitals, schools, nursing homes, and multi storey buildings;

iii) Obtain information on
   a) Numbers trapped;
   b) Location of causalities;
   c) Type and extent of damage – assess damage to structures;
   d) What rescue is already being done (the efforts of volunteers should be coordinated with the operations of the LSAR Team);

iv) Identification and location of additional hazards
Surface Assessment

Required Action:

1. Sweep search of the affected areas
2. Send walking wounded to triage areas
3. Remove all casualties found in non-difficult situation
4. Locate and map casualties requiring extrication.

SURFACE SEARCH AND RESCUE

Required Action:

1. Search areas blocked by light debris is – likely to be areas of high survivability
2. Look for voids (these are possible survival points)
3. Rescue survivors found.

SYSTEMATIC SEARCH AND RESCUE

Required Action:

1. remove selected debris and continue searching voids
2. Rescue survivors found
3. Remove of debris by human chains
4. Emergency shoring of high risk structural elements
5. Obtain all available structural information
SYSTEMIC DEBRIS REMOVAL

Required Action:

1. Systemic debris removal and search
2. Used of heavy equipment for debris removal (supervised by safety officer)
3. Assess building stability and consider structural shoring
4. Concentrated on specific areas to reduce numbers of personnel at risk
5. Mark all search to avoid wasting time re-searching and avoid handling debris twice.