

**Natural Disaster
Rapid Needs Assessment
United States Environmental Protection Agency (USEPA)
Region 6, United States Coast Guard (USCG), Texas General
Land Office (TGLO) & Texas Commission on Environmental
Quality (TCEQ) Disaster Response Procedures**

1.1 Purpose

1.1 Rapid Needs Assessment (RNA): To evaluate the impacted areas to determine the magnitude of the event, the geographical boundaries of the event, and the immediate threats to public health and the environment.

2.0 Objective

2.1 Rapid Needs Assessment Objective: To survey the impacted areas caused by the natural disaster. Determine the most heavily impacted areas and the overall geographical boundaries impacted by the natural disaster. Identify any immediate threats to public health and the environment. Assess Department of Homeland Security (DHS) critical infrastructure (e.g. public water supplies and wastewater treatment facilities) and Risk Management Plan (RMP) and Facility Response Plan (FRP) facilities for damage and immediate ongoing releases. Identify locations for Incident Command Posts (ICP).

3.0 Assessing The Impacted Area

3.1 Aerial Helicopter Assessment

Once the disaster has moved out of the impacted area, it is critical that initial aerial helicopter assessments are completed to determine the greatest threat to public health to begin prioritization of response resources. Aerial Helicopter RNA Teams typically consist of the following: up to 4 government personnel (2 Fed [USEPA/USCG], 2 State [TCEQ/TGLO]), 1 Superfund Technical Assistance Response Team (START) contract staff, and 1 helicopter pilot. The government personnel will act as the Team Leader/s and will direct the team on its assignments/assessments. The START personnel will be in charge of documenting the assessments. The aerial assessments should be well planned before the flight and should include the following to ensure the objectives are met:

- Path of disaster needs to be defined through current news reports, government reports from the National Oceanic and Atmospheric Administration (NOAA) or Federal Emergency Management Agency (FEMA), state regional reports or local/county reports. All of this information will need to be reviewed to determine the flight footprint of the initial flight. Maps developed utilizing geographic information system (GIS) personnel and equipment will be utilized by the RNA team members as a tool for the initial aerial assessment.
- Once in the air, the assessment should begin in the center of the heaviest impacted area. It then should work toward the areas with the least amount of

impact/damage. For Example: After Hurricane Ike, RNA Team Alpha flew to the heaviest impacted area (Galveston Island) and surveyed the island beginning in the center. The team flew northeast following the island's beach toward Bolivar Peninsula and Chambers County until the damaged areas diminished. The team then flew southwest along Bolivar Peninsula and Galveston Island beach until the damaged areas diminished. Once the outer boundary had been determined, the team flew interior towards the mainland in a serpentine pattern through United States Geological Service (USGS) map grids to determine the inland extent of the impact. After flying five USGS map grids on the interior, the area of impact was determined in this operational area.

- The initial aerial assessments need to document any immediate threat to public health and the environment such as any significant or active release of hazardous substances or oil. For Example: During the aerial survey, Alpha Team 1 observed two, 100,000 gallon aboveground storage tanks (ASTs) moved from their base and leaking oil into a marsh area on Goat Island. The team also observed a large amount of white liquid pooled in a marsh area next to a large AST.
- Once the impacted areas have been determined, it is critical for the RNA team to identify accessible locations for potential geographical ICPs. The EPA has a pre-designated staging area website on [epaosc.net](http://epaossc.net) to be utilized for this purpose. Multiple staging areas are currently available for operational use throughout the coast of Texas. The RNA team should compare the available locations on the website to the impacted area and conduct over flights of those selected areas to assist in determining the ICP locations for the future response effort.

Note: Only federal government representatives may supervise federal contractor personnel and only state government representatives may supervise state contractor personnel.

3.2 Aerial Spectral Photometric Environmental Collection Technology (ASPECT) Aircraft Damage Assessment

ASPECT is utilized after a natural disaster to conduct aerial assessments of the impacted area to determine if releases have occurred and if critical infrastructure has been impacted. Critical infrastructure includes the following: RMP and FRP facilities. Once the impacted areas are determined, ASPECT can be tasked to fly the impacted area to conduct its specific tasks. The procedure on how ASPECT operates is below:

- Once the impacted area has been determined, the Operations Section Chief will task ASPECT to conduct assessment activities for critical infrastructure and for releases of oil or hazardous materials.
- START will set up a website to collect all of the information obtained from the assessment which will include photos, checklist for closure, etc.
- Planning/Operations will determine the area of impact caused by the disaster and will then determine what critical infrastructure facilities lie within the impacted area.
- Operations Section Chief will assign ASPECT a list of critical infrastructure facilities in the impacted area to assess
- ASPECT will fly the impacted area determined by the Operations Section Chief and will upload photo-documentation of facilities and active releases and the associated data from the field to an EPA server.

- ASPECT is to notify the Operations Section Chief immediately of any significant releases found. ASPECT is to notify the Operations Section Chief of any severely damaged DHS/FRP/RMP facilities found.
- START will review the uploaded data on the server and fill out a checklist to open or close out a target or facility.
- If the Federal Emergency Management Agency tasks EPA with conducting aerial assessments of DHS Critical Infrastructure, then a separate DHS Critical Infrastructure website will need to be created with photo-documentation and open/closure information for FEMA to review.

4.0 Sizing Up The Scene

RNA Teams are in charge of sizing up the incident. This is completed using many different types of information which includes aerial assessments with helicopters and ASPECT. The RNA team should be able to report to the Operation Section Chief the following:

- Geographical boundaries for the incident.
- Major types of damage and major roadways that are still open into the impacted areas. Example: Flooding is still present on the bayside of Galveston Island however the Galveston Causeway is still open and is being utilized by emergency responders.
- Estimate of Population affected and Household Hazardous Waste (HHW) associated with that population.
- Observed or identified significant releases of oil or hazardous materials that have occurred or that are still active, latitude/longitude of the releases, estimated size, suspected or confirmed chemical of concern and areas impacted from the releases
- Confirmed pre-designated staging area locations and suggestions for ICPs

5.0 Information Sharing

All information, data, maps, reports, photographs or any other information shall be shared with the responding agencies (USEPA, USCG, TCEQ and TGLO). Information will be provided to the responding agencies in the field and to their respective headquarters by whatever means are available which may include a website, e-mail or a server. As requested, EPA and USCG will provide personnel and assets to Texas Division of Emergency Management task forces to assist TCEQ and TGLO and to begin the interagency coordination. Additionally, as directed by respective agency management, EPA/TGLO/TCEQ will staff agency specific positions within the USCG Incident Command Post (Example: Merrell Center ICP during Hurricane IKE). Information will be documented using the Facility/Spill Assessment Field Data Sheet and entered into Response Manager.

ATTACHMENTS:

ASPECT FACT SHEET

FACILITY/SPILL ASSESSMENT FIELD DATA SHEET

HAZARD EVALUATION FIELD DATA SHEET