Hurricane Harvey-Texas
ESF-10
Situation Report #4

Subject: **SITREP #4**
To: Agency Leads
Thru: Matthew Loesel. PSC
From: Unified Command
Date: 9/2/2017
Reporting Period: 9/2/2017

1. Introduction

1.1. Background

Hurricane Harvey made landfall at 2300 ET, August 26th, as a Category 4 storm near Rockport, Texas. Harvey was downgraded to a Category 1 with maximum sustained winds of 85 mph and located approximately 25 miles southwest of Victoria, TX by 0700 on August 27th and moving northwest at 6 mph. Harvey stalled over southeastern TX through the middle of the week. Due to the slow motion of Harvey and a prolonged period of onshore flow, water levels remain elevated. The impacted area received more than 50 inches of precipitation and catastrophic flooding occurred. TS Harvey has left EPA Region VI and currently poses no threat to Region VI.

An ESF-10 Mission Assignment was signed on August 28, 2017. The US Environmental Protection Agency (EPA), Texas Commission on the Environmental Quality (TCEQ), Texas General Land Office (TGLO) and the US Coast Guard (USCG) have entered into Unified Command to begin the evaluation, clean-up and recovery of spills, releases and orphan containers.

1.2. Incident Objectives (Updated on 9/1/2017)

- Provide for the safety, welfare and security of response personnel.
- Maximize the protection of public health and safety.
- Identify affected drinking water and wastewater systems in each area, evaluate the systems to determine their operational status and facilitate system contact with Federal, State and local agencies (provide technical assistance).
- Conduct wide area assessment to identify orphaned containers equal to or greater than 5 gallons, potential or actual discharges from vessels and/or facilities, and document the most effective means for recovery or mitigation in accordance with Natural Disaster Operations Workgroup protocols.
- Prioritize, mitigate/recover product and monitor identified pollution targets.
- Assess DHS critical infrastructure and RMP/FRP facilities for damage and immediate/ongoing releases.
- Identify secure areas to process and temporarily store for subsequent recycling, disposal, or return to original owner displaced orphan containers, above ground storage tanks, hazardous waste, and vessels.

- Identify locations and establish ESF-10 ICP, Branches and Staging Areas commensurate to the size and scope of the incident.
- Establish and maintain a common operating picture (COP).
- Identify and maximize protection of environmentally sensitive areas and threatened species.
- Manage a coordinated interagency response effort that reflects the composition of the Unified Command.
- Establish an IMT that can meet the initial and long-term challenges required for incident mitigation.
- Inform the public, stakeholders, and the media of response activities.
- Ensure appropriate financial accounting practices are adhered to.

2. Current Activities

On Saturday, September 2, 2017, the Incident Command Post in Corpus Christi conducted hazard evaluations, orphan container recovery, oil discharge assessments, and drinking and waste water assessments in both Alpha and Bravo Branch. Two personnel from EPA NIMAT have fully integrated into the Incident Command Post in Corpus Christi (NIMAT SITL and NIMAT FSC).

Currently, the following agencies are engaged in the following:

- US EPA is performing hazard evaluation and recovery,
- USCG is performing hazard evaluation and recovery,
- TCEQ is performing hazard evaluation and recovery as well as drinking water/waste water plant outage assessments,
- TGLO is assessing and responding to oil spills that threaten to enter coastal waters,
- Texas Parks and Wildlife is serving in the Environmental Unit,
- 6th Civil Support Team is supporting TCEQ activities,
- and NOAA is providing scientific support coordination.

2.1. Operations Section

<u>On Sep 2, 2017 Alpha Branch Consisted of the following Groups and Functions</u>:

Orphan Container Recovery Group: In Alpha Branch the Orphan Container Recovery Group consisting of four teams, conducted orphan container recovery in Port Aransas. Containers which have been displaced and are leaking as a result of the hurricane are being identified and recovered utilizing the NDOW Orphan Container Hazard Evaluation SOP and documented using Response Manager. Teams 1 and 2 currently consist of TCEQ, CST and a TCEQ contractor. Team 3 is a special Ops team which is recovering orphan containers with a high degree of hazard associated with them. Team 3 is comprised of EPA, USCG and an EPA ERRS. Team 4 is a strike team which is investigating Hurricane Harvey related NRC, State and Local Reports. Team 4 Consists of EPA and an EPA ERRS.

Water Infrastructure Assessment Group: The Water Infrastructure Assessment Group consists of four teams who are conducting assessments for both Drinking Water and Waste Water Facilities. Teams are prioritizing facilities, and conducting evaluation of these facilities. Teams are utilizing the NDOW Water Infrastructure Evaluation SOP and documenting target utilizing Response Manager. Teams 1 and 2 consist of TCEQ personnel and Teams 3 and 4 consist TCEQ and CST personnel.

Hazard Evaluation Group: The Hazard Evaluation Group consists of two teams performing orphan container hazard evaluation. Teams are prioritizing Rapid Needs Assessment Targets and conducting evaluation of the targets. Teams are utilizing the NDOW Orphan Container Hazard Evaluation SOP and documenting targets utilizing Response Manager. Teams consist of TCEQ and CST personnel.

Oil Discharge Assessment Group: The Oil Discharge Assessment Group consists of 5 teams. Three ER Teams respond to reports of active pollution discharges and conduct patrols as tasked. There are two Oil Discharge Assessment Teams conducting assessments and responding to spills from Port Aransas to Corpus Christi and from Fulton to Ingleside. All teams are conducting hazard evaluation and damage assessment, and collecting information on damaged and sunken vessels and populating Response Manager.

Staging Group: There is also a Staging Group that is receiving, processing, categorizing, bulking and disposing of any and hazardous containers.

On Sep 2, 2017 Alpha Branch Consisted of the following Groups and Functions:

Arkema Group: The Arkema Group consists of one team. The team composition is currently set at 2 personnel from the EPA. The Arkema Group's primary purpose is to assess and monitor conditions at the Arkema facility in Crosby, Texas.

Orphan Container Hazard Evaluation Group: The Orphan Container Hazard Evaluation Group consists of 7 teams. Team compositions include personnel from the EPA, USCG, TCEQ, TGLO, and CTEH. The group's primary purpose is to conduct orphan container hazard evaluation throughout Branch Bravo's geographical area. The targets are being evaluated via the NDOW orphan container hazard evaluation SOP and documented within Response Manager.

NRC/Investigation: The NRC/Investigation Group consists of one team. The team composition is currently two EPA members. The group's primary purpose is to investigate any NRC reports within the Branch Bravo's geographical area.

Oil Discharge Assessment Group: The Oil Discharge Assessment Group consists of 5 teams. Each team has three members and includes personnel from the EPA, USCG, TCEQ, and CTEH. The group's primary purpose is to conduct oil discharge assessments

throughout Branch Bravo's geographical area. The targets are being evaluated via the NDOW Facility/Vessel Oil Discharge Assessment SOP and documented within Response Manager.

Orphan Container Recovery Group: The Orphan Container Recovery Group consists of 2 teams. Each team has three members and includes personnel from USCG, TCEQ, and an OSRO. The group's primary purpose is to conduct orphan container recovery throughout Branch Bravo's geographic area. If not recovery already documented targets, the Orphan Container Recovery Group will utilize the NDOW Orphan Container Hazard Evaluation SOP and document targets within Response Manager accordingly.

On Sep 2, 2017 ASPECT Branch performed the following functions:
ASPECT is assessing Department of Homeland Security (DHS) critical infrastructure (e.g. public water supplies and wastewater treatment facilities), Risk Management Plan (RMP) and Facility Response Plan (FRP) facilities for damage and immediate ongoing releases.

PLANNED: Aerial Recon teams are being formed for the next operational period. It is anticipated these teams will be placed in Bravo Branch and will include one helicopter. Discussions regarding Charlie Branch have started and when feasible, it is anticipated that several EPA personnel and a Data Unit will be deployed.

Notable hazard evaluations and assessments performed and ongoing during this operational period include the following:

TCEQ reported the following wildlife mortality to Unified Command: one small whale Near Port Arthur TX near latitude: 27.8199 and longitude -97.0603; three dead pelicans were found in Port Aransas. Wildlife mortality was documented using Texas Parks and Wildlife's Department's Fish Kill and Injured/Oiled Wildlife Form.

Arkema Chemical Explosion Update: On September 1st at approximately 1730 CDT, another explosion occurred resulting in a large fire with significant amounts of black smoke. ASPECT has performed 5 overflights with no detections, with only 2 detections of benzoyl peroxide at approximately 5 ppm which is just above the detection limit. All other readings have been nondetect. During the fire EPA's ground air monitoring results outside of the exclusion zone were below levels of health concern for VOCs, SO2 and CO. Unified Command determined that access to the facility is unsafe and a 1.5-mile evacuation radius would remain in effect until further notice.

On Sep 2nd, 2017 – EPA personnel met with Nueces County Emergency Management Coordinator and Deputy Coordinator at the Nueces County EOC. The EMA Coordinator did not feel that there were any environmental concerns that they would need assistance with, but appreciated EPA reaching out to them. Their contractor, will be starting "vegetation" debris pickup next week which should last about 4-6 days. The

EMA Coordinator did ask if EPA could echo any of their social media and media information about the debris pickup to assist in a widespread dissemination of their information.

At approximately 10:34 local time a Port Assessment Team received a report of a gas well leak at 9 Mile Point (Lat and Long as followed: 28 01'28.8"N, 97 01'08.1"W). Oil Discharge Assessment Team 2 responded, identified the well, and did not find it to be leaking. Case closed.

At approximately 11:02, Oil Discharge Assessment Team 1 observed an ongoing release of natural gas at the TR Offshore LLC's South Mustang Separation Facility. Oil Discharge Assessment Team 1 notified the responsible party and logged the incident into NDOW.

The Oil Discharge Assessment Group reported and logged 7 vessels, 2 facilities, 14 orphan containers, 4 platforms and 12 well heads for NDOW. Emergency Response Team 1 conducted contractor oversight and site safety on the Tug Signet Enterprise during lightering operations.

Table 1. Summary of Hazard Assessments/Recovery

Status	Total Count Alpha	Total Count Bravo	Total Count NRC
Access Denied (Open)	0	0	0
Assessment Required (Open)	15	33	2
Item Recovered (Closed)	30	0	0
Leave in Place (Closed)	6	5	0
Leave in Place (Open)	0	11	0
Recovery Required (Open)	21	25	1
Refer to Other Agency, no EPA needed (Closed)	1	1	0
Refer to Other Agency (Open)	1	0	0
Special Operations (Open)	0	0	0

Table 2. Summary of Spills and Discharge

Status	Total Count Alpha	Total Count Bravo	Total Count NRC
Access Denied (Open)	2	2	0
Assessment Required (Open)	469	31	21
Clean Up Completed (Closed)	4	0	5
Clean Up in Progress (Open)	5	15	10
Discharge Identified Clean Up Not Initiated (Open)	20	10	10
No pollution Threat (Closed)	60	0	1
Refer to Other Agency (Open)	2	0	0

Table 3. Drinking Water and Waste Water Assessments Performed on during current operational period.

Status of Facility with On-Site Visit	# of Facilities Assessed on 9/2/17
Loss of Power Not on Generator	1
On Generator Power	2
Inoperable	2
Operating	0
Out of Contant (No Response)	0
Results of Testing Pending	2

Table 4. Drinking Water Treatment Facility Phone Assessments from Austin TX

Drinking Water Facility Assessment Status	# of Contact on 9/2/17	Cumulative
Clear	44	111
Destroyed	0	3
Operating on Generator Power	9	46
Inoperable	9	149
Loss of Power - No Generator	38	253
Operating	420	1900
Out of Contact	64	179
Results of Testing Pending	38	64
Needs Site Visit	5	8
Unknown	39	250

Table 5. Waste Water Treatment Facility Phone Assessments from Austin TX

Waste Water Facility Assessment Status	# of Contact on 9/2/17	Cumulative
Inoperable	3	64
Operating	149	1882
Operating on Generator Power	3	48
Partial Operations	21	64
Needs Site Visit	0	2
Out of Contact (No Response)	2	46
Unknown	142	268

Projected Alpha Branch operations for Sep 2nd,2017: Include two hazard evaluation teams, two water infrastructure teams, five oil discharge assessment teams and four orphan container recovery teams.

Projected Bravo Branch Operations for 9/2/2017: Include seven hazard evaluation teams, five oil discharge teams and investigation of NRC Reports.

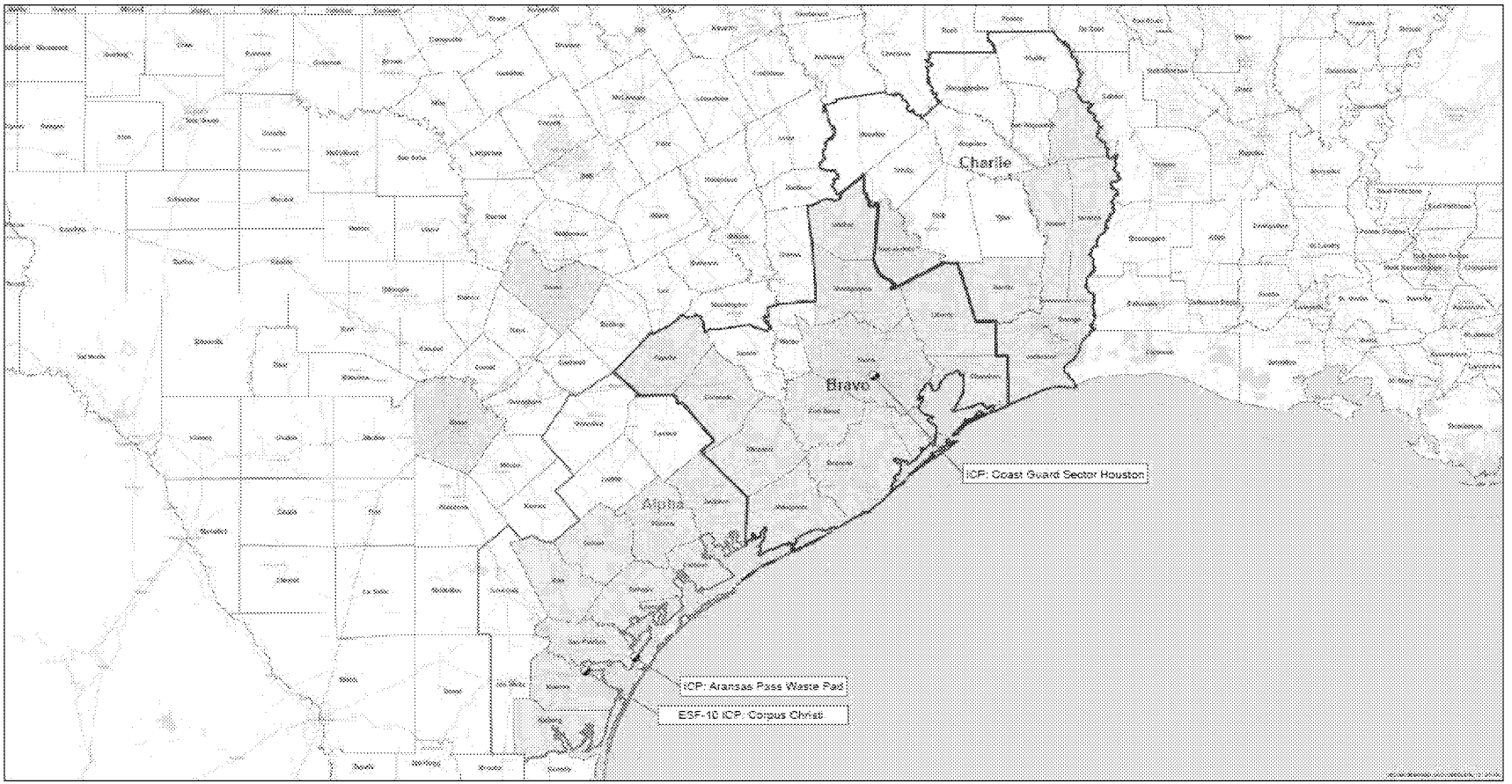
Projected NRC Investigation Team and Arkema Group Operations for 9/2/2017: ASPECT will continue monitoring Arkema and performing critical infrastructure assessments as available. The NRC Investigation Team will investigate any Hurricane Harvey related NRC reports.

3. **Participating Agencies**
   - **Texas Commission on Environmental Quality**
   - **Texas General Land Office**
   - **Texas Parks and Wildlife**
   - **6th Civil Support Team**
   - **US Environmental Protection Agency**
   - **US Coast Guard**
   - **National Oceanic and Atmospheric Agency**

4. **Personnel on Site**

Agency	Alpha Branch	Bravo Branch	Charlie Branch*	Austin
US EPA	13	13		9
USCG	19	29		
TCEQ	20	28		
TGLO	16			
CST	15			
Contractors	10	5		

***Charlie Branch in process of being staffed.**



Legend

- Incident Command Post (ICP)/Staging Area
- Alpha
- Bravo
- Charlie
- County Boundary
- Federally Declared Counties in Texas

USA EPA REGION 6
Overview Map
Alpha, Bravo, Charlie
Hurricane Harvey Response

N W E S

0 25 50
Miles

For Official Use Only

EPA GIS
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PHOTOS:

Photo One: Command and General Staff Meeting on Sep 2nd 2017

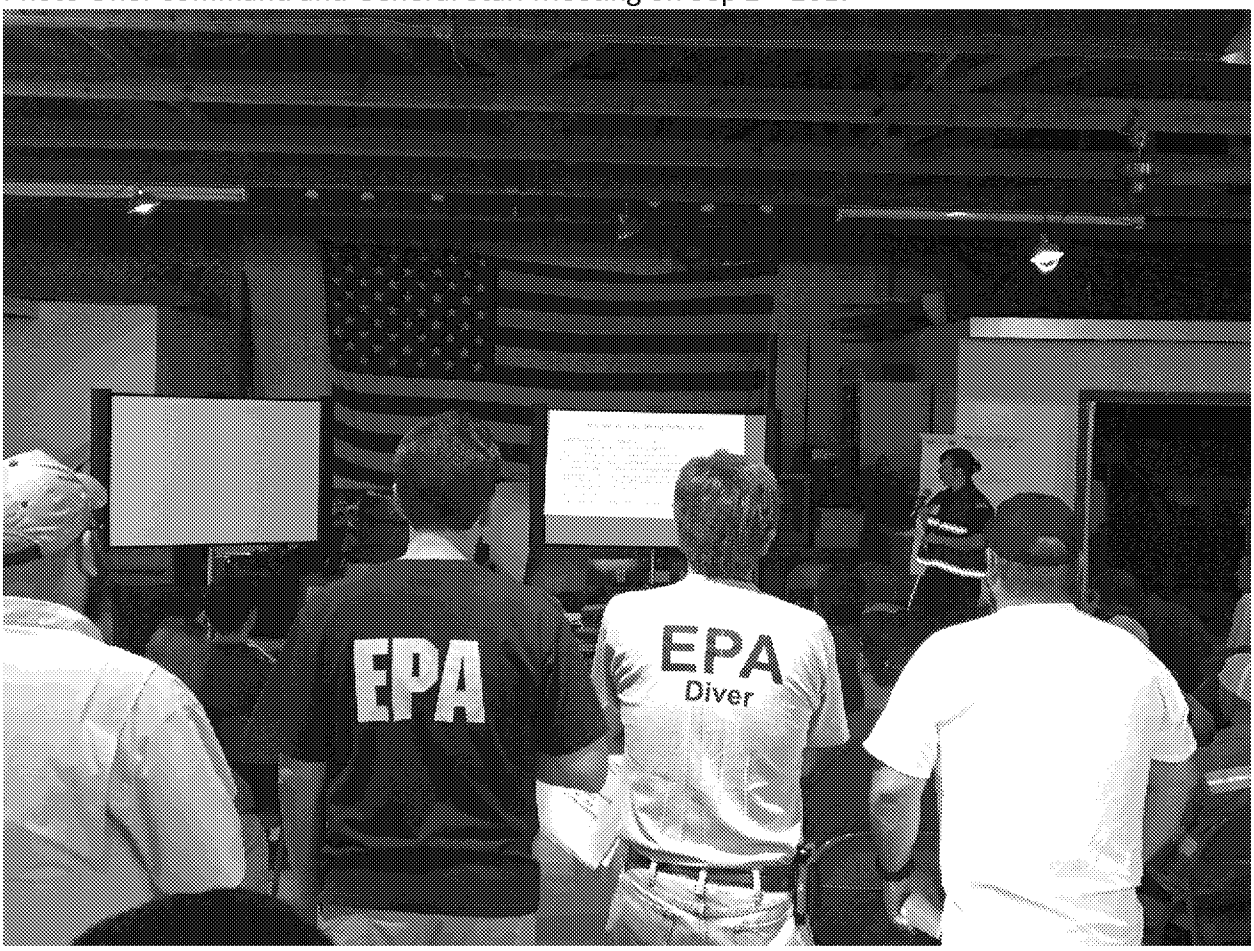
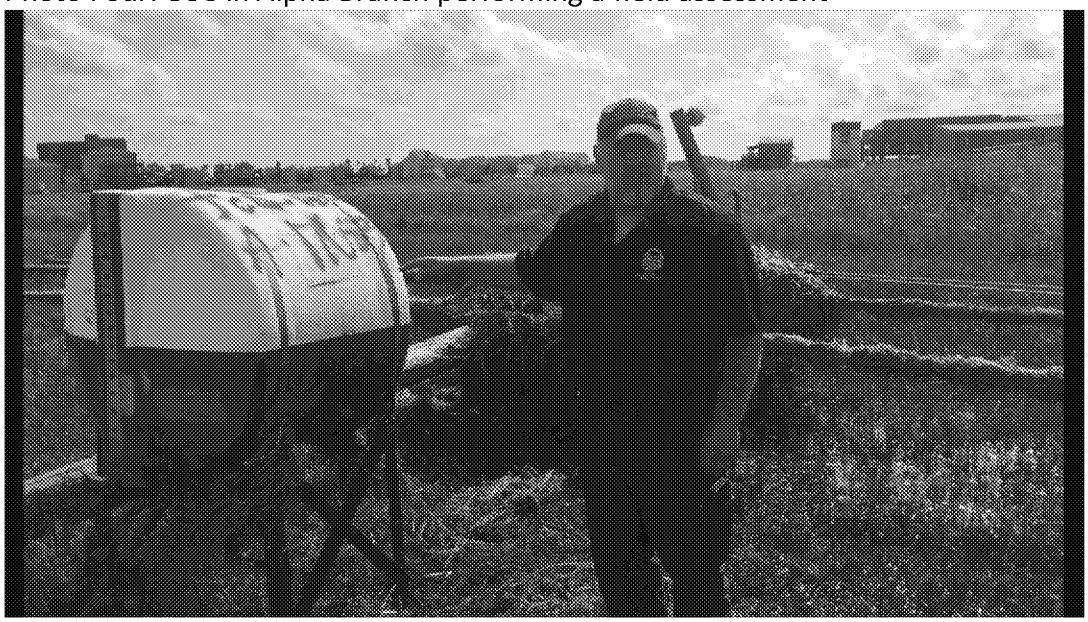
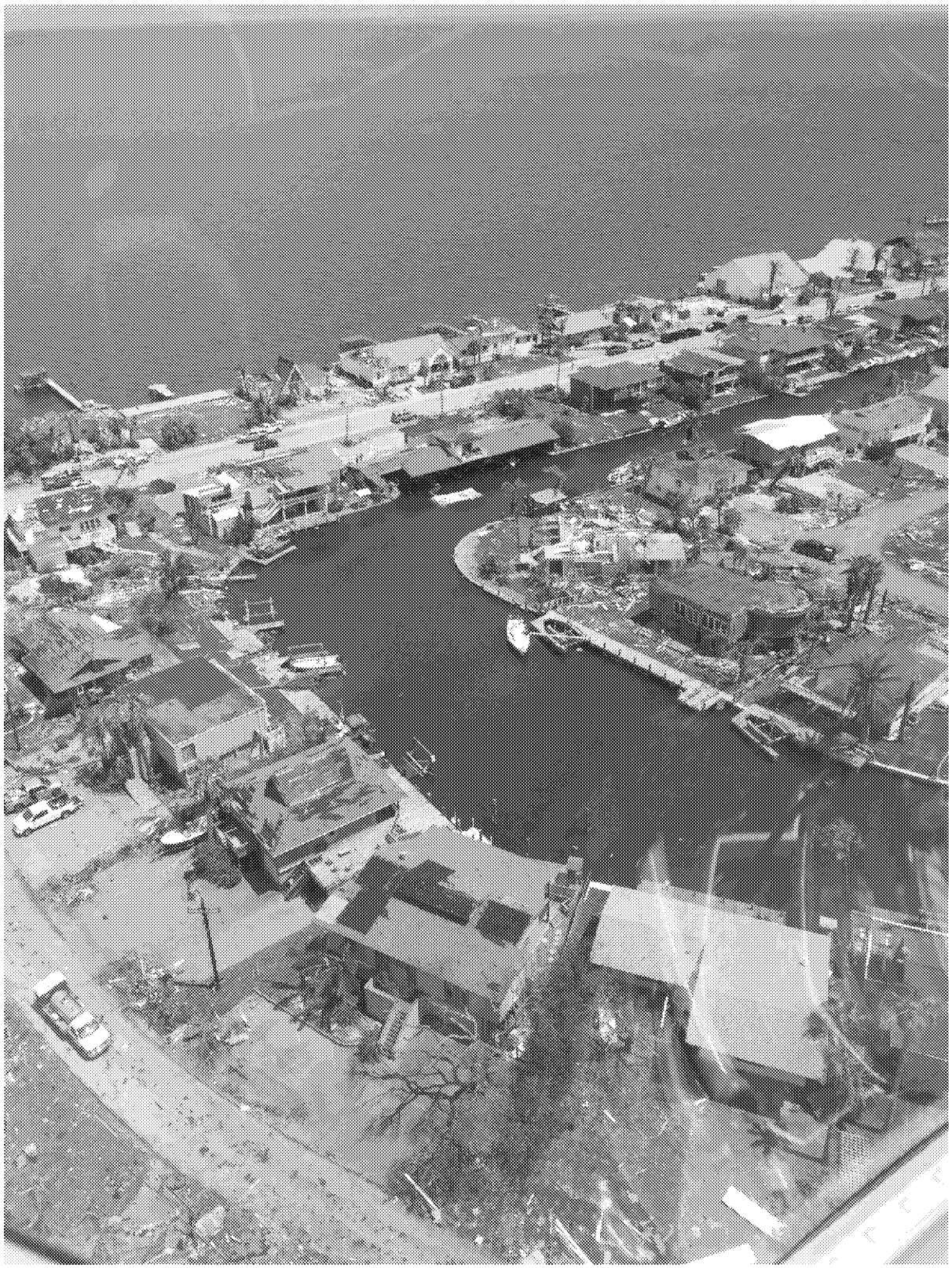


Photo Two: Tactics Meeting on Sep 2nd 2017

Photo Three: Alpha Branch Team Three Special Ops. USCG and EPA Members discussing operations.

Photo Four: OSC in Alpha Branch performing a field assessment



Photos Five through Eight include photos from the TCEQ/EPA Recon flight over Rockport/Fulton on Sep 1st 2017