

**CALIFORNIA TASK FORCE 3  
URBAN SEARCH AND RESCUE  
PROGRAM**



**2017 Hurricane Harvey  
MRPW Deployment  
After Action Report**

**August 27- September 7, 2017**

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## **Task Force Administrative Information**

### **Key Personnel in Task Force:**

Task Force Program Manager:	Manny Navarro, Division Chief, MPFPD
Task Force Program Coordinator	Joe Crivello, Battalion Chief, SJFD
Task Force Leader:	James Stevens, Division Chief, MPFPD
Task Force Water Rescue Manager:	Seth Johnson, Captain, MPFPD
Task Force Logistics Manager:	Tony Eggimann, Captain, MPFPD
Task Force Cache Manager:	Ben Villao, CA-TF3
Task Force Grants Manager:	Amy Kraska, MPFPD
Task Force Records Specialist:	Julie Quanz, CA-TF3
<b><u>Sponsoring Agency Name:</u></b>	Menlo Park Fire Protection District

### **Key Sponsoring Agency Personnel/TF Contacts:**

Manny Navarro, Division Chief	<a href="mailto:mnavarro@menlofire.org">mnavarro@menlofire.org</a>
Amy Kraska, Grant Manager	<a href="mailto:amyk@menlofire.org">amyk@menlofire.org</a>
Harold Schapelhouman, Fire Chief	<a href="mailto:harolds@menlofire.org">harolds@menlofire.org</a>

### **Locations:**

<u>Task Force</u>	<b>Mailing:</b> 1376 Willow Rd, Menlo Park, CA 94025 <b>Physical:</b> Same
<u>Warehouse</u>	Same
<u>Sponsoring Agency</u>	170 Middlefield Rd, Menlo Park, CA 94025

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**Participating Agencies (names and locations):**

Aptos/La Selva Fire Protection District  
6934 Soquel Drive  
Aptos, CA. 95003

Central County Fire  
1399 Rollins Road  
Burlingame, CA. 94010

Monterey Fire  
610 Pacific Street  
Monterey, CA. 93940

Palo Alto Fire  
250 Hamilton Avenue  
Palo Alto, CA. 94301

San Mateo County Public Safety Communications  
400 County Center, Dept. PSC100  
Redwood City, CA 94063

San Mateo Fire  
1900 O'Farrell Street #140  
San Mateo, CA. 94403

Milpitas Fire  
777 S Main Street  
Milpitas, CA. 95035

Millbrae Fire  
511 Magnolia Avenue  
Millbrae, CA. 94030

Mountain View Fire  
1000 Villa Street  
Mountain View, CA. 94041-1295

Redwood City Fire  
755 Marshal Street  
Redwood City CA. 94063

San Francisco Fire  
698 Second Street  
San Francisco, CA. 94107

San Jose Fire  
1661 Senter Road  
San Jose, CA. 95112

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Santa Clara City Fire  
777 Benton Street  
Santa Clara, CA. 95050

Santa Clara County Fire Protection District  
14700 Winchester Blvd  
Los Gatos, 95032-1818

South San Francisco Fire  
480 N. Canal Street  
South San Francisco, CA. 94080

Sunnyvale Public Safety  
700 All American Way  
Sunnyvale, CA 94086

Woodside Fire Protection District  
3111 Woodside Road  
Woodside, CA. 94062

### **Corporations:**

Genentech  
1 DNA Way  
South San Francisco, CA. 94080

Stanford Research Institute  
333 Ravenswood Ave  
Menlo Park, CA. 94025

### **Previous Deployments:**

<b>Name</b>	<b>Date</b>	<b>State or Federal</b>	<b>Type</b>
Hurricane Gustav	2008	Federal	III
Hurricane Ernesto	2006	Federal	III
Hurricane Katrina	2005	Federal	I
World Trade Center	2001	Federal	I
Oklahoma Bombing	1995	Federal	I
Hurricane Iniki	1992	Federal	I

**Internet Website:** <http://www.menlofire.org/> & <http://www.catf3.org/>



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### **General Info:**

California Task Force 3 (CA-TF3) is a multi-agency Task Force made up of 18 partner agencies and two corporations. Menlo Park Fire Protection District serves as the host agency, stores and maintains the Federal US&R cache. Task Force 3 is also one of the (8) Type 1 US&R Task Forces serving California. The agencies of this Task Force also staff (3) Cal-EMA Type 1 Heavy Rescue Companies, which are used for local, immediate need technical rescue response.

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## **\*\*Executive Summary\*\***

Hurricane Harvey started in the Southern Atlantic on August 17<sup>th</sup> as a tropical storm. By August 19<sup>th</sup> the storm had crossed over into the Caribbean Sea on had degenerated to a tropical wave. As the storm continued West-Northwest it began to regenerate and by August 25<sup>th</sup> it had become the eighth named storm, third hurricane, and first major hurricane of the season. Hurricane Harvey moved slowly as its category 4 winds of 130 mph made landfall over Rockport, Texas. Once making landfall the hurricane stalled and denigrated to tropical storm.

As the storm moved slowly over Texas, many areas received as much as 40 inches of rain causing major flooding and making Harvey the wettest tropical cyclone in U.S. history. On August 28<sup>th</sup> the storm moved back over the Gulf of Mexico and gained slightly in strength before making landfall again in Louisiana on August 29<sup>th</sup>. Harvey continued to travel north and by September 3<sup>rd</sup> had dissipated. In total Hurricane Harvey caused 90 deaths and 70 Billion dollars in damages.

Days prior to Hurricane Harvey making landfall, FEMA began placing Task Force resources in Austin, Texas and Baton Rouge, Louisiana. On Sunday, August 27, 2017, California Task Force 3 received orders to deploy a Mission Ready Package Water (MRPW). The orders were received at 1400 hours with a window for departure of four hours. The mode of transportation was to be ground. It was at this point that the sponsoring agency decided to include a Task Force Leader (TFL) as part of the team, raising the number deployed to fifteen.

In addition, the California Office of Emergency Services (Cal OES) agreed to loan two rigid hull inflatables to the CATF-3. The team departed 1376 Willow Road, Menlo Park, CA at 1730 hours, less than four hours from the time of receiving orders. Per the orders from FEMA, the destination was the NRG Center, Houston, Texas. As the team traveled southeast to Texas, the destination was changed to Beaumont, Texas. However, as the team entered Texas on August 29<sup>th</sup>, they were redirected to the AT&T Center in San Antonio, Texas.

The team arrived at the AT&T Center at 0820 hours. Following check-in the team was feed, given an opportunity to shower and then sleep. During this time the TFL attended a briefing with members of the Incident Support Team (IST). During that briefing the team was given orders to respond to the field. The team was assigned to the Northeast Harris Branch and directed to depart immediately for Kingwood, Texas. As the team neared the Houston area along Interstate 10, they stopped for fuel near Katy, Texas. It was at this point that the team received orders to stand down and move to staging at 1734 Katyland Drive, Katy, Texas, Arthur Miller Career and

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Technologies Center. The team spent the night of August 29<sup>th</sup>, day and night of August 30<sup>th</sup> in staging. On August 31<sup>st</sup> the team deployed to the field.

On August 31<sup>st</sup> at 0730 hours the team was deployed to Wharton, Texas. The team traveled along Hwy 59 toward Wharton, Texas until they reached flood waters that stopped their progress. The team located an area appropriate for launching their water craft and staging their equipment, County Road 220, Hungerford, Texas.

California Task Force 1 (CATF-1) and New Jersey Task Force 1 (NJTF-1) arrived at County Road 220 with CATF-3 and also began to launch water craft. CATF-3 TFL worked with NJTF-1 and CATF-1 to establish a search plan. The teams spent most of the day searching a rural area outside of Wharton. In the late afternoon the team was directed by the Division Group Supervisor, Keene Black to relocate to the forward base of operations at the Love’s Truck Stop at County Road 220 and Hwy 59. Once at the forward base of operations the team was assigned a Texas National Guard medium terrain vehicle to transport them into Wharton to begin a house to house search and rescue operation. This operation continued the next day, September 1. September 2<sup>nd</sup> through the 3<sup>rd</sup> were spent in staging and demobilization occurred on September 4<sup>th</sup>. The team arrived home on September 7<sup>th</sup> at 1530 hours.

**\*\*OPERATIONAL MISSION OBJECTIVES\*\***

**ESF 9- Urban Search and Rescue**

Category	TRAVEL
Objectives	<ol style="list-style-type: none"><li>1) Maintained the safety of MRPW Team through situational awareness by observing for signs of fatigue, assessing weather and road conditions.</li><li>2) Ensured drivers were provided with adequate rest periods by rotating them out every 4-6 hours after driving.</li><li>3) Sustained regular communication every 2 hours with the National Regional Coordination Center (NRCC) pertaining to MRPW team status.</li><li>4) Sustained regular communication with the CATF3 Program Office by providing operational mission updates at least twice daily.</li><li>5) Conducted regular maintenance of the vehicles after each fueling stop to assess for safety and functionality.</li></ol>

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Category	STAGING
Objectives	<ol style="list-style-type: none"><li>1) Ensured that all IST briefings and meetings were attended by the appropriate team discipline.</li><li>2) Ensured that all team members had access to the Incident Action Plan and were aware of the Safety Plan.</li><li>3) Conducted team briefings to maintain situational awareness and communicate expectations.</li><li>4) Maintained mission ready status by conducting operational checks of equipment and vehicles.</li><li>5) Conducted team training sessions to prepare for potential situations to be encountered in the field.</li><li>6) Continuous monitoring of weather conditions and events related to the disaster.</li></ol>

Category	FIELD OPERATIONS
Objectives	<ol style="list-style-type: none"><li>1) Relocate CATF3 MRPW to Hungerford Texas to deploy water craft into Wharton.</li><li>2) Establish a unified command and coordinate search with CATF1 and NJTF1.</li><li>3) Support IST Wharton Branch in conducting search and rescue operations.</li><li>4) Deploy Four Jon Boats and two IRB from County road 220.</li><li>5) Search area between Hwy59 and Business 59 (N. Richmond Rd) and County 220.</li><li>6) Neighborhood search of areas within Wharton Texas.</li></ol>

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**\*\*OPERATIONAL MISSION STRENGTHS\*\***

*1. Team's Overall Experience in Disaster Response and Training*

- Observation*
- The knowledge, skills and experience of the team members resulted in a group capable of adapting to the circumstances at hand.
  - Professionalism of the individuals on the team contributed to a collaboration and unity that resulted in a higher level of performance.

*2. CA-TF3- Program Office Mission Support and Information Management*

- Observation*
- Support of home and sponsoring agency enabled the team to fulfill the mission request from the National Regional Coordination Center (NRCC).

*3. MRWP Response Teams Mobility*

- Observation*
- Scale down size of mission ready package allowed for the team to be agile.
  - Teams ability to integrate itself with Type III and Type I allowed for support not carried as part MRPW package.

*4. Cross Functional Position Training*

- Observation*
- Team members capable of serving in multiple disciplines fulfilled responsibilities that were not rostered as part of the MRPW.

*5. Task Force Leader's Communication Strategy*

- Observation*
- Inclusive participation in IST briefings and follow up briefings with team members allowed for clear understanding of mission assignments.
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#### **\*\*PRIMARY AREA FOR IMPROVEMENT\*\***

#### **NATIONAL US&R RESPONSE SYSTEM OPERATIONS MANUAL**

Improvement: Policy Clarification

Analysis: The National US&R Response System Mission Ready Package Handbook, Appendix J, Introduction (1), states “To embed a Type 1, 14-member “US&R Water Ops component embedded within a Type 1 US&R Task Force; and/or (2) To provide (for future consideration) the means to deploy a standalone 14-member US&R Water Operations component from each system task force.” During the deployment this topic was discussed during several briefings. However, no official attempt to embed the MRPW with a Type 1 was made.

Recommendation: There needs to be a clearly communicated intent or expectation on the part of the National US&R office as to how the MRPW will integrate into the mission. This can be on an event by event basis but, needs to be communicated at the time of team deployment.

#### **TRAVEL**

Improvement: Inadequate rest periods for ground crews.

Analysis: Historically CA-TF-3 has been deployed post initial event. Once deployed the ground team is expected to drive straight through to the assigned staging area. This is a dangerous practice and while the team has always been able to accomplish this directive, a policy addressing the drive hours and rest periods should be developed.

Recommendation: Develop a policy addressing the drive hours and rest periods on all operational missions.

#### **MEDICAL**

Improvement: Medical Cache

Analysis: MRPW took two Medical Specialist with them on the deployment but, did not include narcotics as part of their cache. Also, the cache should include a comfort meds kit. Several of the purchases made while on deployment involved comfort items that could have been addressed prior to deployment.

Recommendation: Medical Specialist need to be equipped with the appropriate medications including narcotics.

#### **COMMUNICATION**

Improvement: Inadequate Communication Systems

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Analysis: Communications were inadequate during field operations. The inability to communicate via portable radio lead the team to abandon the system and rely on cell phones.

Recommendation: The Task Force communications capabilities and plan should be reviewed and a recommendation for improvement made by those most knowledgeable (Communications Discipline) in this area. The implementation of change to communications needs to be field tested prior to any future deployments. All personnel need to be trained and well verse on the use of the equipment and plan.

### **GPS TRACKING- IRON SITES**

Improvement: Modernization and Training of Tracking System

Analysis: The team used Iron Sites as directed and experienced limited success. The team trained on the use of the program during travel to Texas and again while in staging. However, the practical deployment of the program during water operations was cumbersome and was limited by the technology and the lack of field experience.

Recommendation: The program should be re-evaluated and it should be determined whether or not newer more user-friendly technology is now available. Team members should be well trained and versed in any system required for operational reporting.

### **IRB**

Improvement: Standard Operating Guideline

Analysis: Large open areas of flooding present many hazards that inflatable craft are susceptible to. During the first day of field operations the team lost one IRB to damage caused by such hazards.

Recommendation: The use of an IRB during flood water missions should be evaluated and a clear standard for the appropriate application of these vessels established. A standard that details that IRBs are primarily for swift water rescue and recommended for streams, or street areas that are easily delineated should be considered.

### **FLEET**

Improvement: Configuration of vehicles for water environments

Analysis: Travel in and around flood effected areas subjects the team to roads that flooded for short distances but, passable for the appropriate vehicles. For example, the team was forced to deploy their water craft far outside their assigned area because the fleet reach a point in which they could not pass a low area of flooded highway. This was true of all the teams assigned to Wharton. It was not until late the first day of field operations that the team was given access to a National Guard unit that provided a medium terrain vehicle, allowing them to gain direct access to Wharton, Texas.

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Recommendation: The Task Force should review its fleet and deployment configuration. Modifications to the rolling stock that allow for safe water environment operations should be considered. Future purchases of rolling stock should also consider the potential for deployment to flood areas. The addition of a medium terrain vehicle to the fleet should be investigated and a recommendation made through the appropriate FEMA working group.

## TRAILERS

Improvement: Efficiency of launch and overloading of trailers

Analysis: During the deployment there was much discussion regarding open trailers versus closed trailers. This was brought about by comparing CA-TF-3 MRPW's trailers to that of other teams. It was argued that the open trailers allowed for ease of launch, while the closed trailers were slower to launch from. Considering the distance the team travels to most of its hurricane / flood responses the closed trailers provide protection for the equipment during travel and security when staged – hotel stays, meals, etc.

Recommendation: Adding an additional trailer will achieve a greater ease of launch. This would allow the team to reduce the load in the existing trailers and reconfigure how the water craft are loaded and launched. This would also provide for one additional truck during travel, reducing the number of personnel in each vehicle – additional space for resting rotating drivers.

## DECONTAMINATION

Improvement: Enhance standalone capabilities.

Analysis: As was seen during the Hurricane Harvey deployment the MRPW can be a stand-alone package. As such, it should be prepared to address its own decontamination, as well as any other safety needs. For example, during the first day of field operations CA-TF-1 had set up decontamination operations to support CA-TF-1, NJ-TF-1, and CA-TF-1's water operations. Part way through the operations the IST moved CA-TF-1 to another location and they pulled their decontamination support.

Recommendation: The team's decontamination supply was minimal and needs to be reviewed and brought up to a more self-sufficient standalone capability.

## TRAINING AND EXERCISE

Improvement: Develop diversity of training in water environments

Analysis: Operations in flood water areas are not limited to standing water in open areas, it is far more complicated than that. Based on terrain, source, obstacles, and drainage the conditions encountered can be very dynamic.

Recommendation: The training that each member of the MRPW receives should allow them to

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transition from one type of operation to another safely. If the TFL or agency representative is to be included in the deployment of a MRPW then they should be required to train with the team at a minimum of annually at an awareness level.

#### **Conclusion:**

Hurricane Harvey was the wettest tropical cyclone in US history, resulting in wide spread flooding over Texas. This prompted the first time deployment of the US&R System Mission Ready Package – Water Rescue. CA-TF-3 MRPW was deployed on Sunday, August 27 to the Houston Area to support search and rescue efforts. The team traveled via ground thirty nine hours straight. The team arrived at San Antonino staging on Tuesday, August 29 and after a short break was moved to a forward staging at Katy, Texas. It was from this position that the team conducted field observations in and around Wharton, Texas. The team returned home on September 7 and immediately began preparing the team for deployment to Hurricane IRMA.

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