



HOUSTON FIRE DEPARTMENT

FIRE • EMS • RESCUE

High Water Rescue Operations Update

Public Safety Committee |

Beau Moreno • Captain / Marine Group Coordinator • June 14th, 2026



History of Flooding in Houston

HOUSTON FIRE DEPARTMENT

"Houston is not on the water, but when it rains, we're in the water." - Fmr District G CM Greg Travis



Sloane Gallery 1935 Flood

- During the 1935 flood Houston Fire Department lost eight (8) fire engines while trying to respond to a fire at the Yellow Cab Co.
- This loss of eight (8) fire engines represented 30% of HFD's twenty-six (26)
- In today's equivalent, this would twenty-six (26) of the eighty-eight (88) fire engines
- An estimated replacement cost of about \$26,000,000, and a sever strain on the system



Current Flooding in Houston

HOUSTON FIRE DEPARTMENT

- Flooding continues to be the most common, widespread, and costly weather-related disasters
- Water Rescue is 400x more dangerous than any other type of technical rescue – Int'l Assoc. of Water Rescue Professionals
- Regardless of the setting, the common factor is the same: moving water is powerful, unpredictable, and unforgiving
- “If we are only training our teams in environments conducive for success we are setting them up for failure”- Battalion Chief Travis Maher (dec.), Austin Fire Department



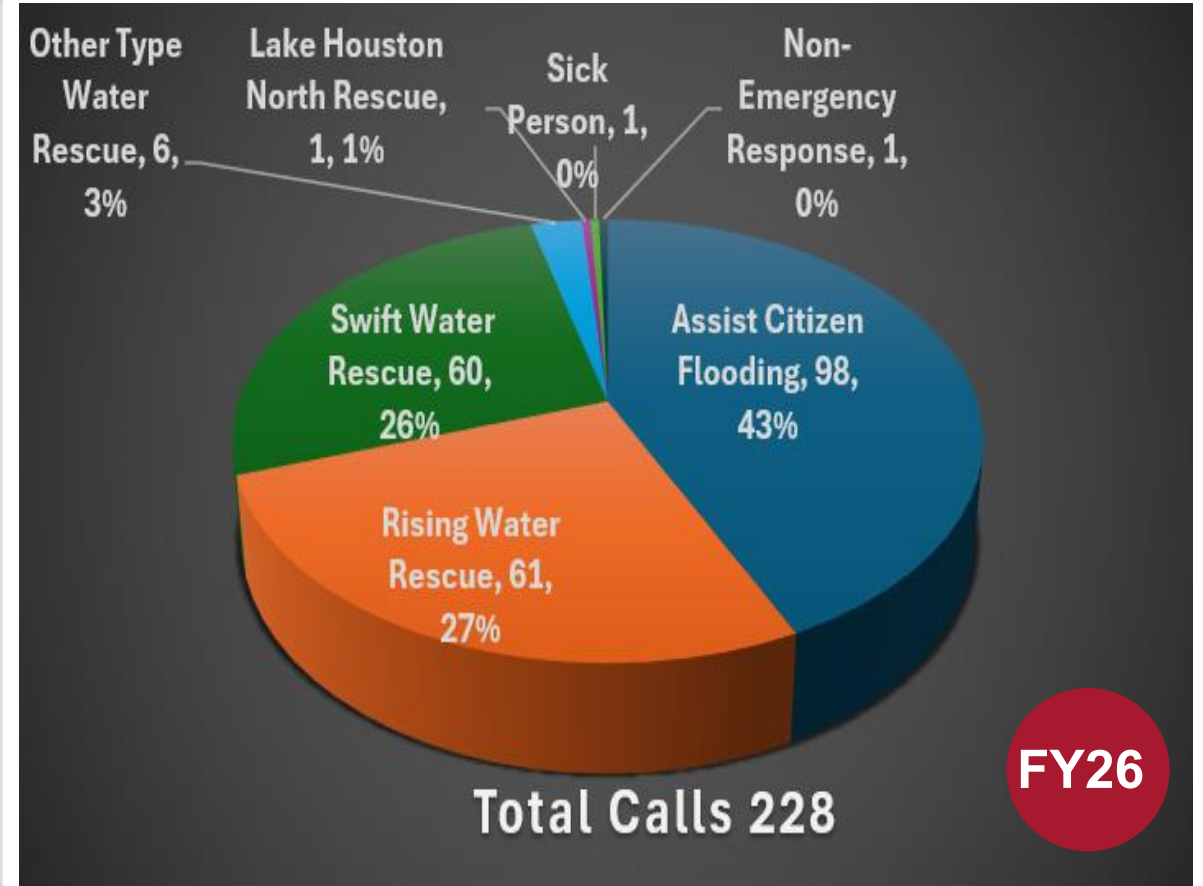
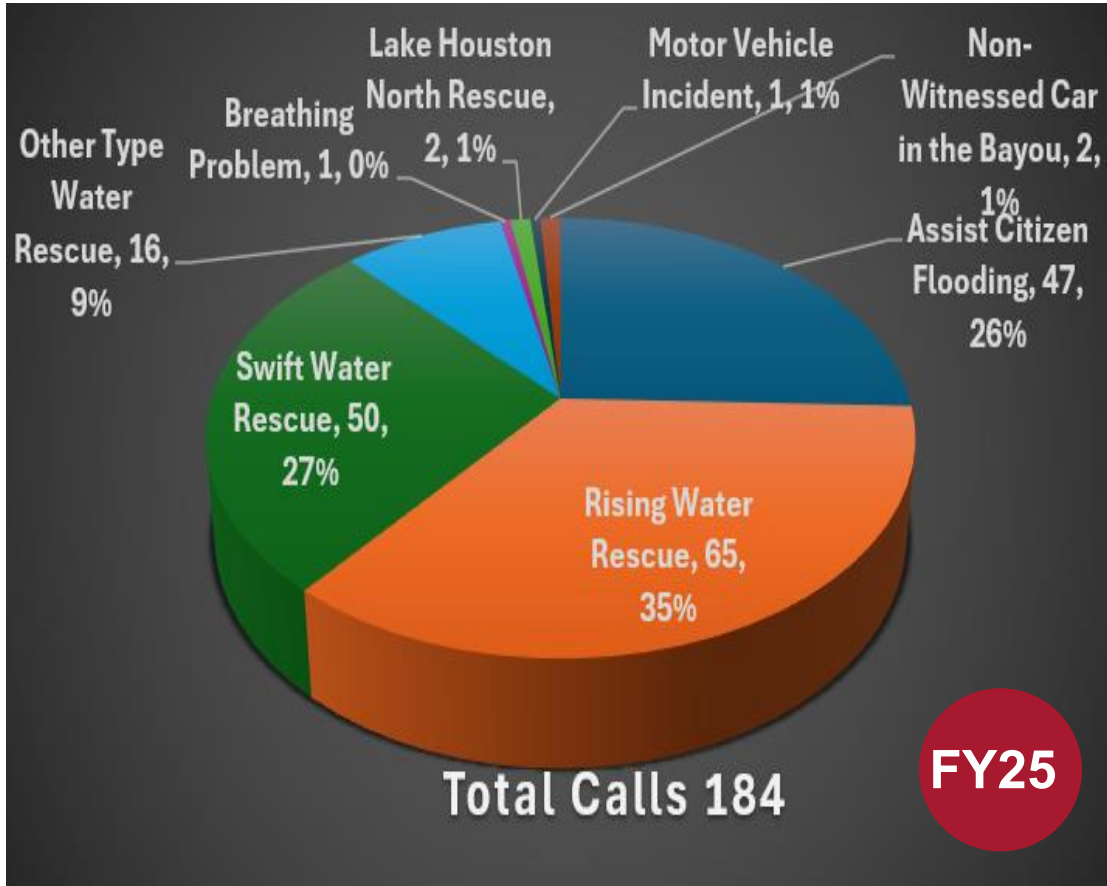


- ## Current Flooding in Houston-Cont.



Calls By Dispatched Type – Fiscal Year

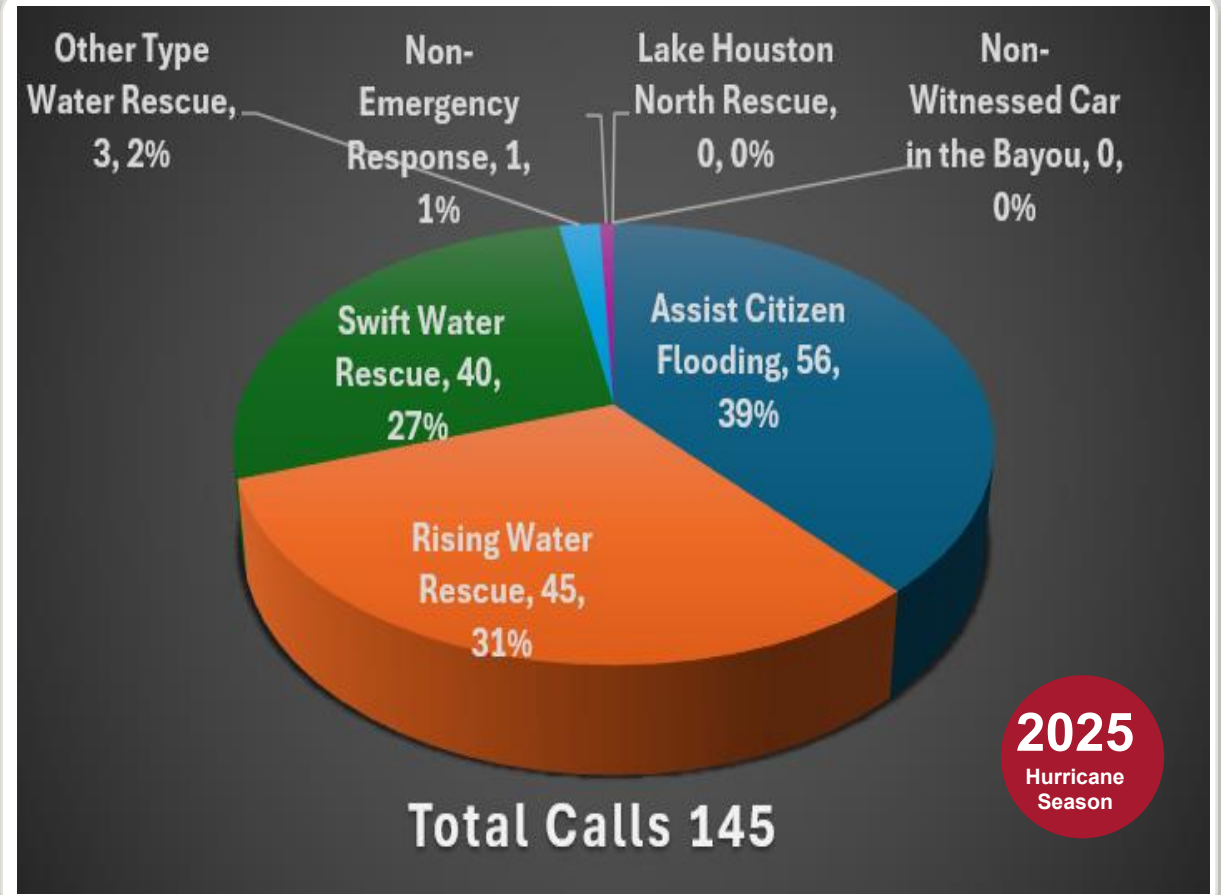
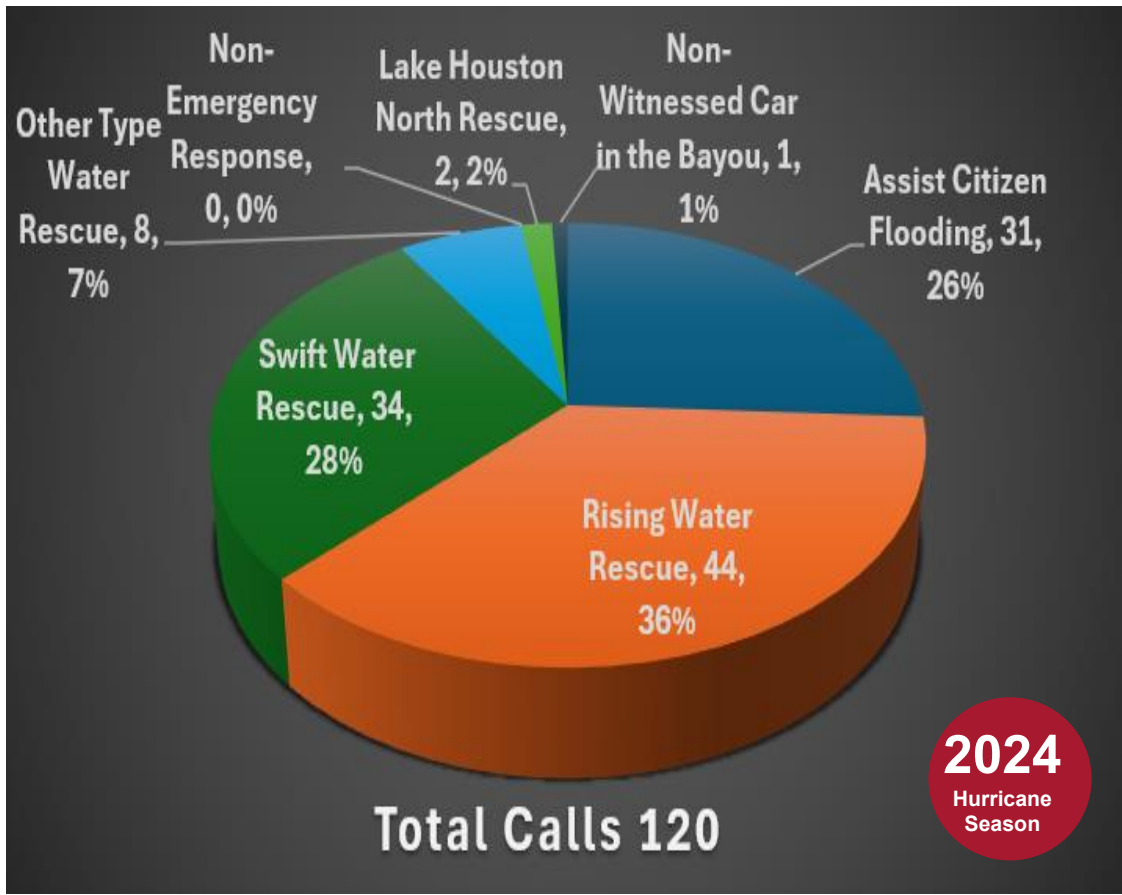
HOUSTON FIRE DEPARTMENT





Calls By Dispatched Type - Hurricane Season

HOUSTON FIRE DEPARTMENT





Flood Response Training

HOUSTON FIRE DEPARTMENT



Mandatory Training

Texas Boater Safety Act says you must have a Texas Boater Education Certification Course **if you were born on or after September 1, 1993**, and will be operating:

- A personal watercraft (PWC)
- A motorboat with more than 15 horsepower
- A sailboat over 14 feet
- \$11



In-House

Annual Training:

- High Water Vehicle
 - 20 days
 - 1848 Man Hours
 - 308 Members
- Evac Boats
 - 88 Days
 - 3840 Man Hours
 - 640 Members



External Expert

OSU:

- Swift Water Tech
 - 14 Members
 - \$14,000 Plus Travel

Texas A&M TF-1

- Rescue Skill Set
 - 7 Members
 - 2 day
 - Zero cost to the City of Houston
- Swiftwater Boat Ops Task Book Check-off
 - 1 Member
 - Cost passed on to the member



Opportunity Training

Schlitterbahn:

- 40 Members (HFD/HPD)
 - Zero cost to the City
 - 240 Man Hours
- Lake Houston Dam Releases
 - Zero cost to the City



Capabilities of Flood Response Vehicles

HOUSTON FIRE DEPARTMENT

– 4 –

– 3 –

– 2 –

– 1 –

Max Operating Depth 24"



Ambulance Max 12"

Max operating Depth 50"



All Other Heavy Apparatus Max 20"



Min Operating Depth 24"
of Dynamic Water (<3mph)



Min Operating Depth 24"
of Swift Water (>3mph)



Flood Response Vehicles By Type

HOUSTON FIRE DEPARTMENT



6 Multi Mission Booster

Pros:

- Safe Operating Depth 20"
- Faster Response times
- Crew integrity
- Can move up to 10 people

Cons:

- Max Operating Depth 24"
- Not a "No Notice" Response
- Water and Electronics



5 High Water Vehicle

Pros:

- Safe Operating Depth 30"
- No electronics
- Can move up to 30 people

Cons:

- Single Mission
- Max Operating Depth >50"
- Age of the vehicles
- Must go out for service



10 Boatright Classic

Pros:

- Extremely durable
- 600+lbs rescue payload

Cons:

- Min Operating Depth 24"
- Limited Launch Location of Dynamic Water (<3mph)
- Need to be repowered



10 OneBoat (Double Stack)

Pros:

- Two for one
- Short lead times for ordering
- Cost

Cons:

- Thin aluminum
- Limited to 400lbs rescue payload
- Limited Launch Location
- Min Operating Depth 24" of Dynamic Water (<3mph)



Flood Response Vehicles By Type

HOUSTON FIRE DEPARTMENT



1 Boatright Classic II

Pros:

Extremely durable
1100+lbs rescue payload*

Cons:

Min Operating Depth 24"
of Dynamic Water (<3mph)
Limited launch capability



2 Boatright Fire Boat

Pros:

Extremely durable
1300+lbs rescue payload*

Cons:

Min Operating Depth 24"
of Dynamic Water (<3mph)
Limited to Lake Houston



9 Zodiac 420 IRB

Pros:

Durable*
Capable of doing the
"2blockWalk"
Unlimited Launch Locations

Cons:

Min Operating Depth 24"
of Swift Water (>3mph)
Limited room for people
Range
Specialized Training



Water Strike Team/ Technical Rescue

HOUSTON FIRE DEPARTMENT



- Sixty-Three (63) Member team
- Trained in flood and Swiftwater Response
- On shift at three (3) fire stations (10, 11, 42)
 - Fourteen (14) Members on shift each day
 - Seven (7) on staff
- Members train on duty, and on their days off



- Eighty (80) Member (reserve) team reactivated post Harvey
- Trained in flood and Swiftwater Response
- Activated twice in FY2026
- Members train on their days off



Future of Flood Response In Houston

HOUSTON FIRE DEPARTMENT

We must continue to bridge the gap between capabilities and bravery

- Increased utilization of drones
- Expand personnel response capabilities
- External Expert training for specialized teams
- Harris County Sherrif Office is building a Fathom Tank that we will have access to
- Explore Harris County Multi-agency water response task force with HCFMO





HOUSTON FIRE DEPARTMENT

Marine Division

Technical Rescue Team

"Through Hell & High Water"