

FIREFIGHTER MAYDAY SURVEY

The First 100 Report

Mission Statement

"To compile, analyze, and share data collected objectively from real firefighter Maydays and near misses, with the goal of improving firefighter safety, training, and fireground tactics."

FIREFIGHTER MAYDAY SURVEY

FOUNDING MEMBER Lt. Bassel Ibrahim







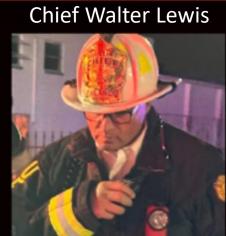
COMMITTEE MEMBERS



Chief Jim Crawford







Dr. Lindsay Judah Chief Aaron Heller



Lt. Seth Major



Definition and Terminology

FID: Firefighter In Distress

FF: Firefighter

FD: Fire Department

IDLH: *Immediately Dangerous to Life and Health*

LODD: Line Of Duty Death

IC: *Incident Commander*

RIT: Rapid Intervention Team

RC: Rescue Crew (crew that performed the rescue, if other than the RIT)



General Information

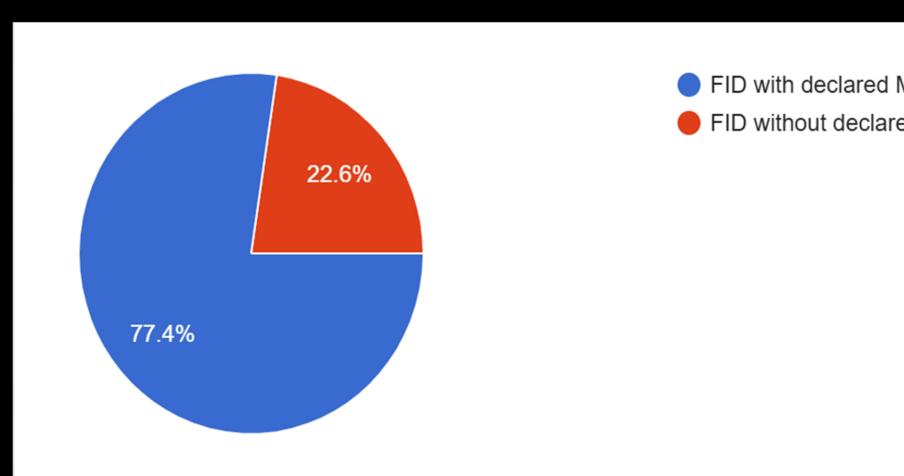


- 77% included an FID with a declared Mayday.
- 97% of these reported Maydays occurred at an emergency incident.
- 57% of these incidents were formally reported with 72% being from career fire rescue agencies.
- 38% of Maydays were reported during incidents between 9:00pm and 3:00am.
- 40% of Maydays occurred in temperatures from 70-89 degrees and 28% occurred in temperatures from 30-49 degrees.

• 98% of respondents shared their department has a culture which allows members to speak up if they observe an unsafe act on the fireground. The same percentage have individual portable radios assigned.

 87% shared their department has a policy/procedure for dedicated RIT, with 76% being proactive.

What are you reporting?

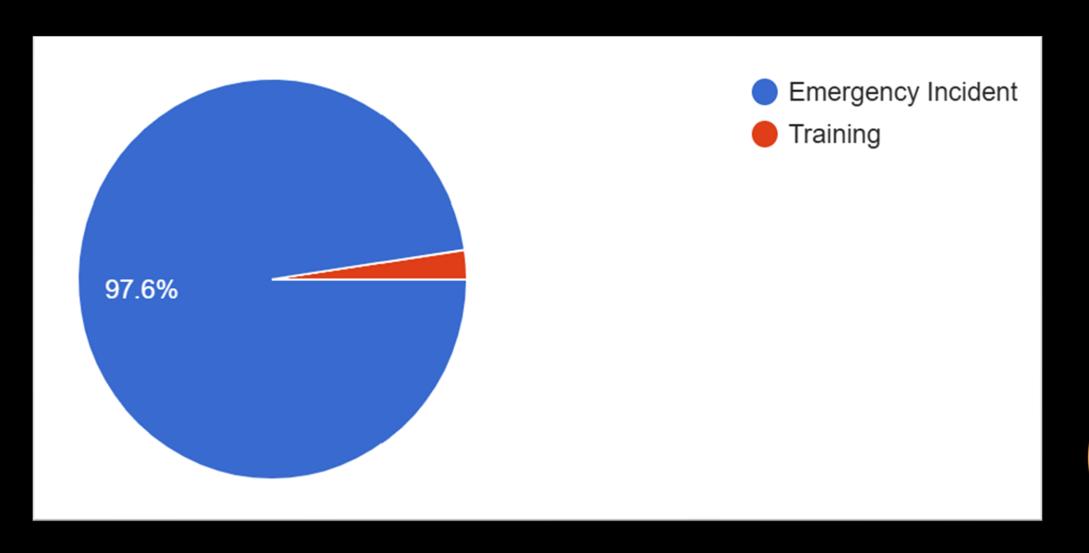




FID without declared Mayday

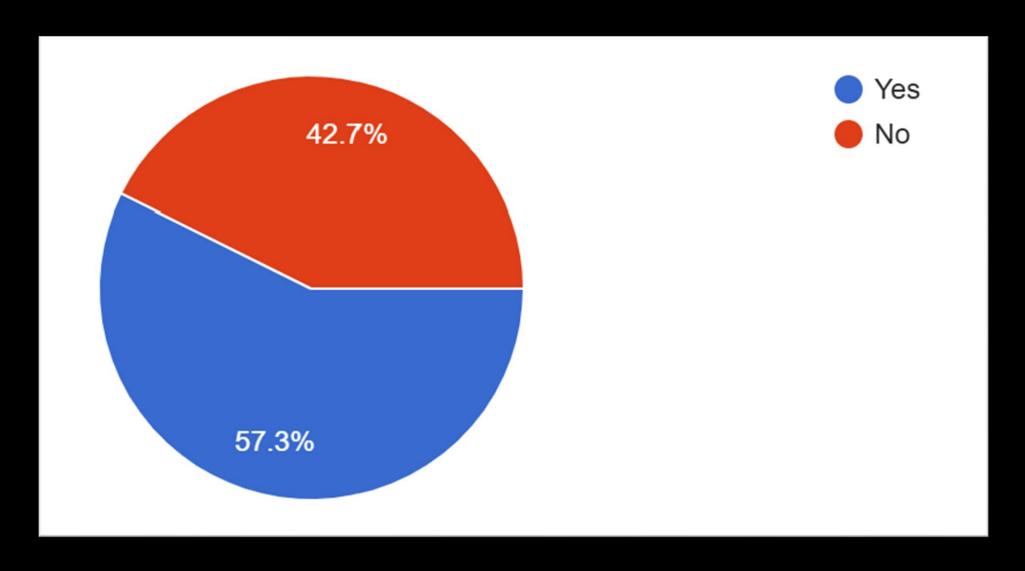


Training Vs. Emergency Incident



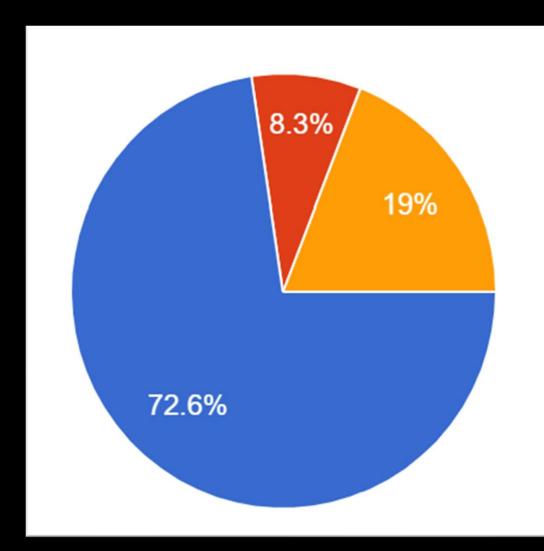


Was this incident formally reported?





FD Type



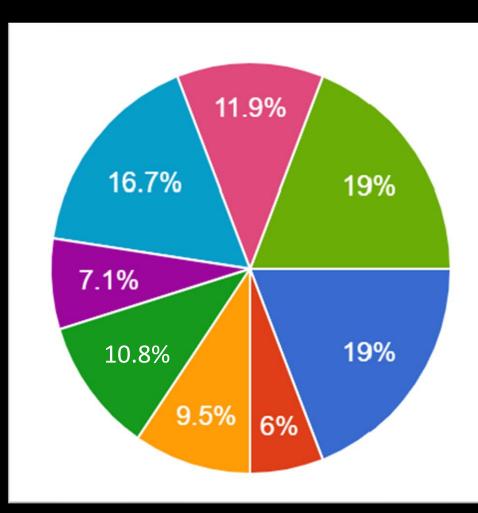
Career

Volunteer

Combination



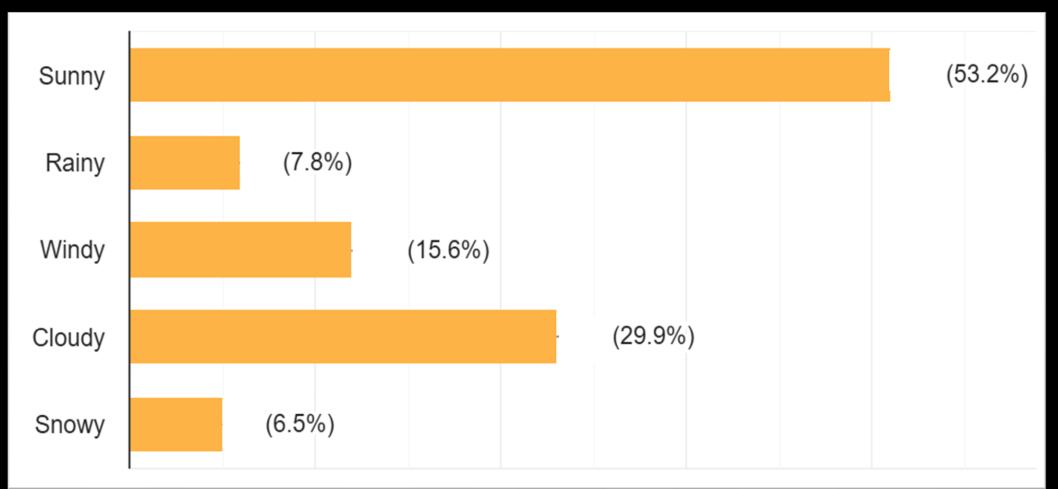
Incident times



- Midnight 3 am
- **3:01 am 6 am**
- 6:02 am 9 am
- 9:01 am 12 pm
- 12:01 pm 3 pm
- 3:01 pm 6 pm
- 6:01 pm 9 pm
- 9:01 pm 11:59 pm

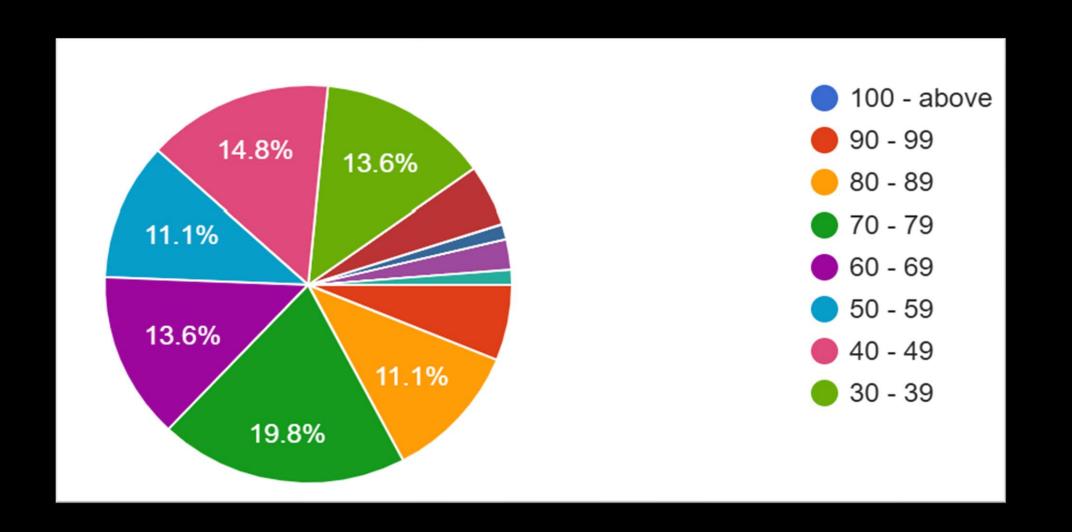


Weather conditions



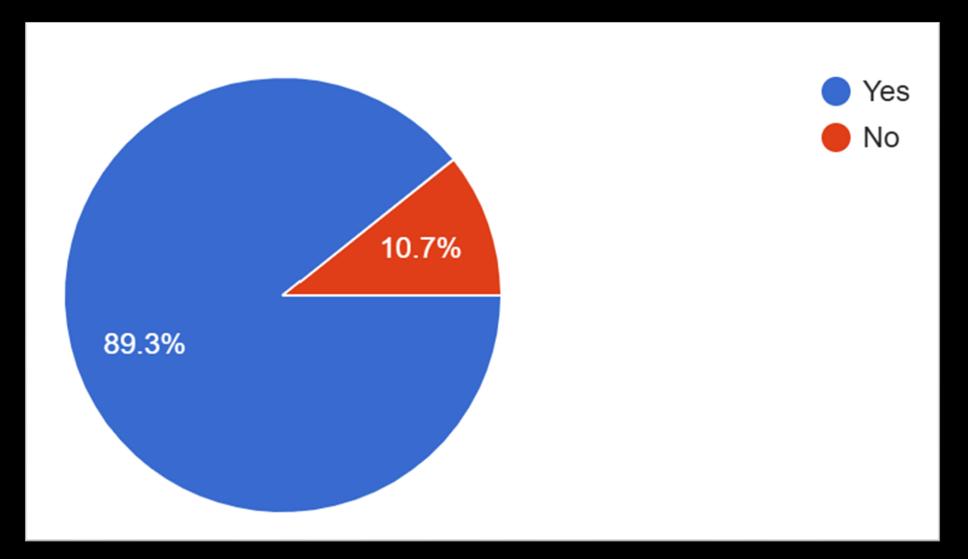


Weather temperature (Fahrenheit)



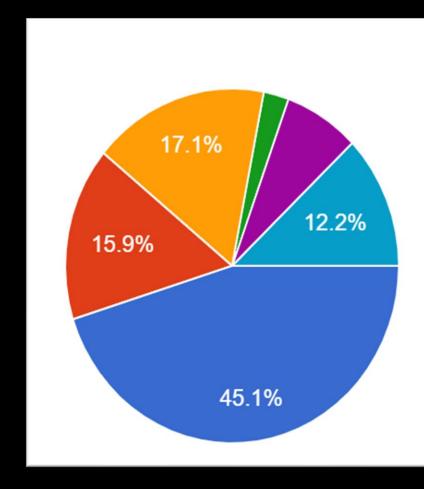


Were you operating on an incident scene?





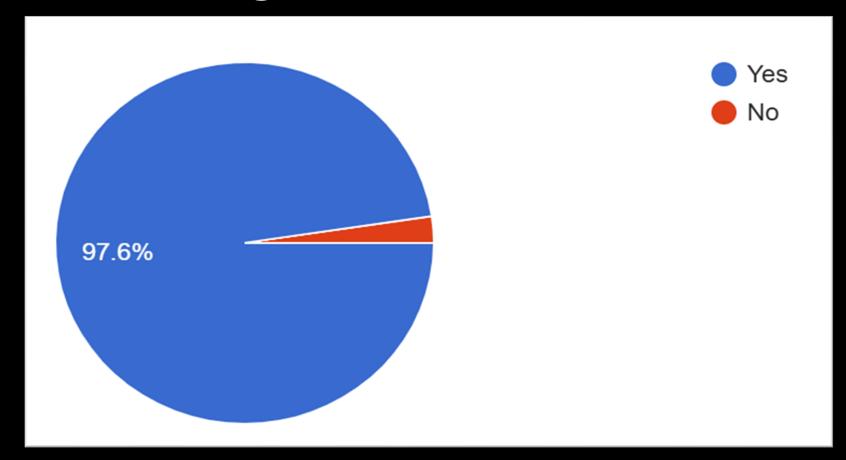
If yes, what was your assignment?



- FID
- RIT/rescue crew member
- Incident commader
- Chief officer
- Firefighter operation on scene not directly involved in the mayday or near miss
- N/A

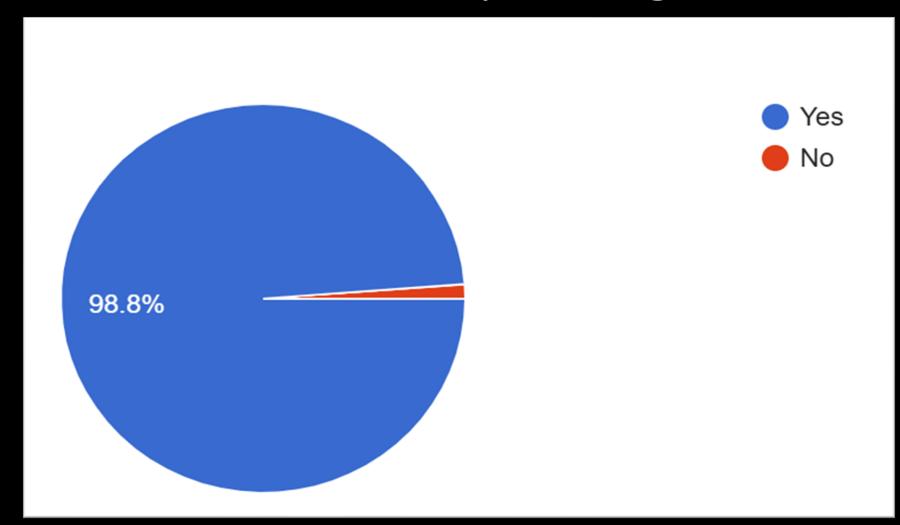


Does your department allow any members to speak up if they observe an unsafe act on the fireground? (Culture focused question)



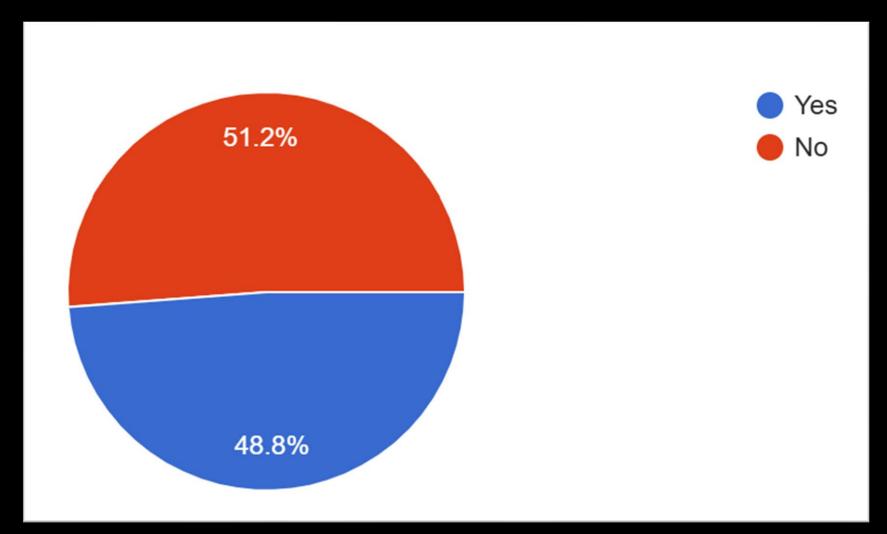


Does every member of your team carry a radio while operating on scene?





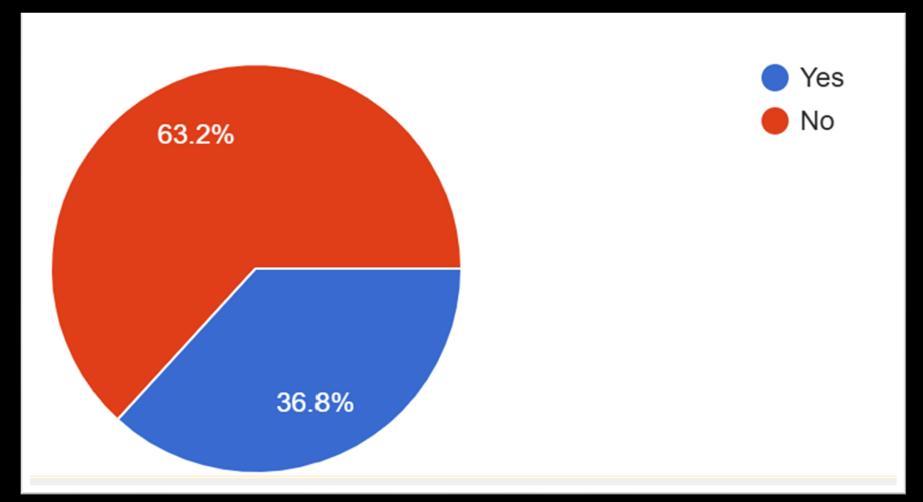
Does your department have annual fitness standards?





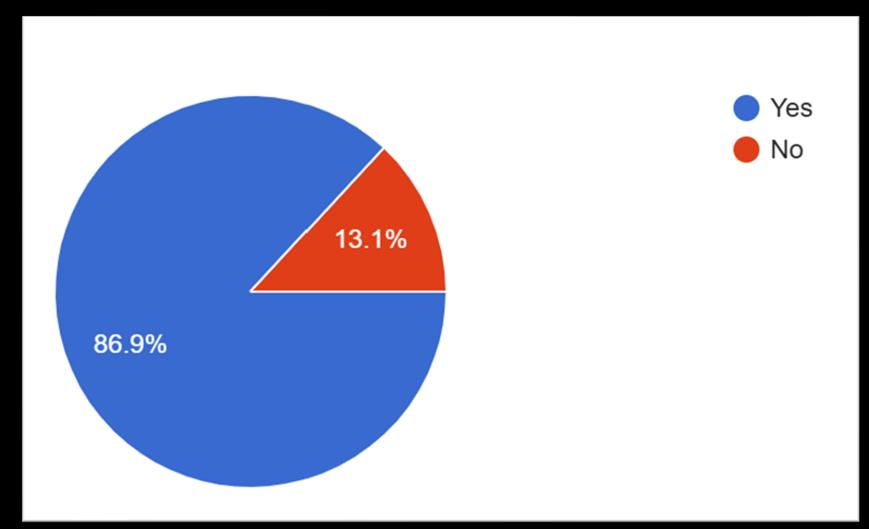
If so, are those standards punitive?

(Meaning if you do not pass, you are removed from combat duty and remediated)



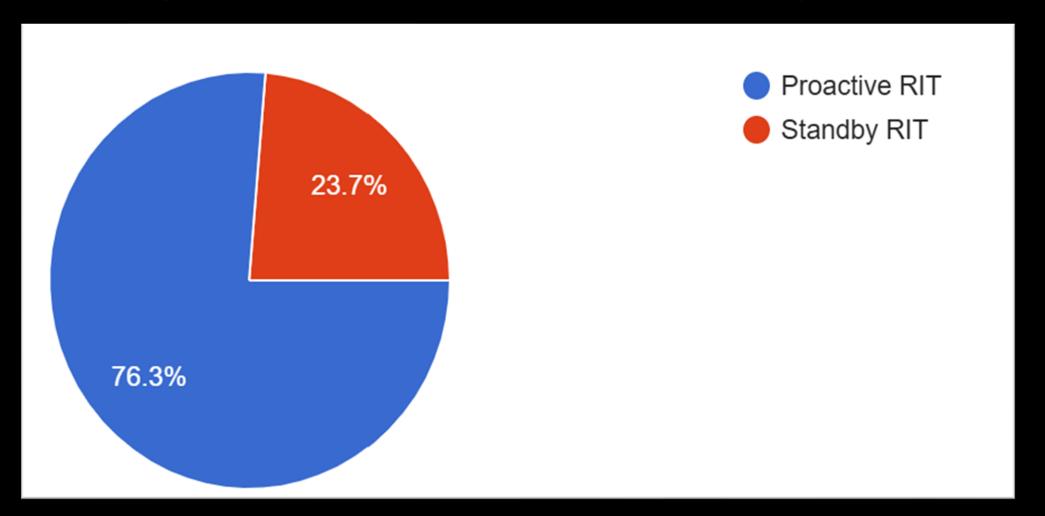


Does your dept. have policy/procedure to assign crew as dedicated RIT?





If so, is it a Proactive RIT (softening the structure, being mobile, creating egress etc.) or Standby RIT (staged out front with tools waiting for activation)?





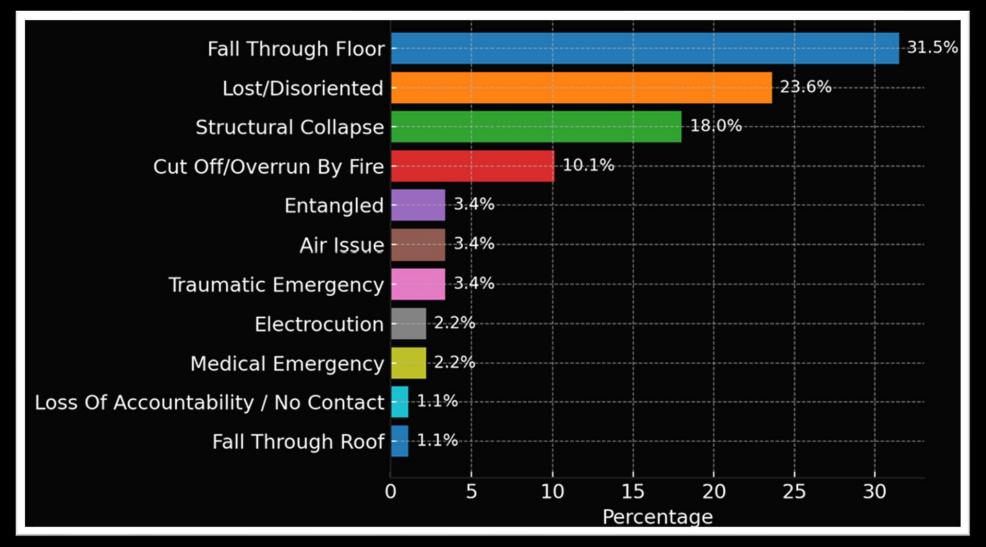
Mayday Incident



- The top four emergency types resulting in a Mayday were, 31% were a fall through the floor, 23% were from becoming lost/disoriented, 18% were from structural collapse, and 10% stated they were cut off or overrun by fire.
- 73% of incidents occurred in a residential home (77% wood frame) and no reported incidents occurred in a high-rise.
- 88% occurred in a one- or two-story residence and 54% had a basement.
- 92% of the locations were not sprinkled.

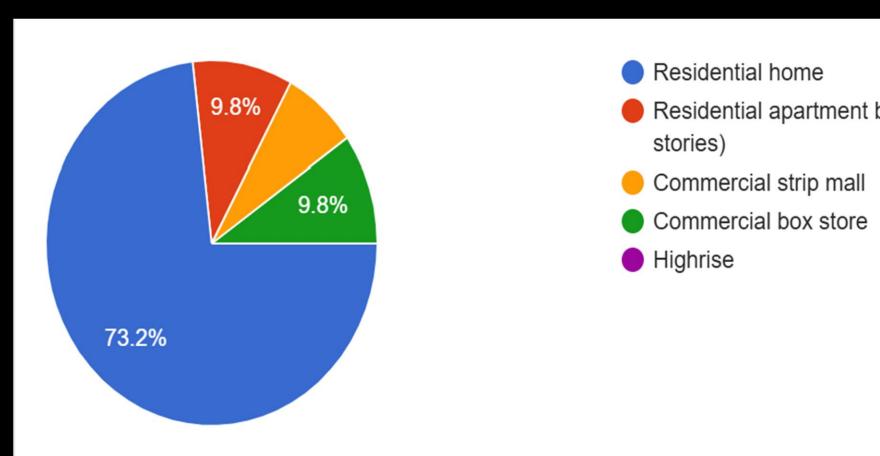
- 44% of respondents shared initial arriving conditions were smoke showing, no visible fire from exterior.
- 29% of respondents stated that under 25% of the structure was involved.
- 94% began operations in an offensive strategy.
- 75% of Maydays were made via radio transmission requesting help and 86% reported the emergency button was not activated.
- 85% reported a hoseline being in place and flowing when the Mayday was declared.

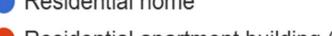
Emergency type causing the Mayday





What type of structure did the Mayday occur in?

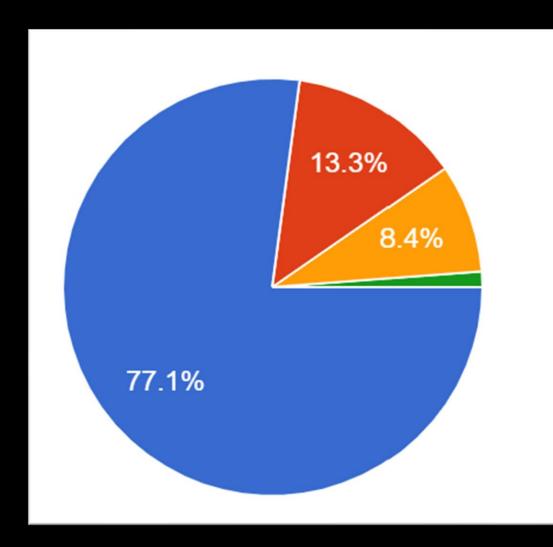




Residential apartment building (Up to 4



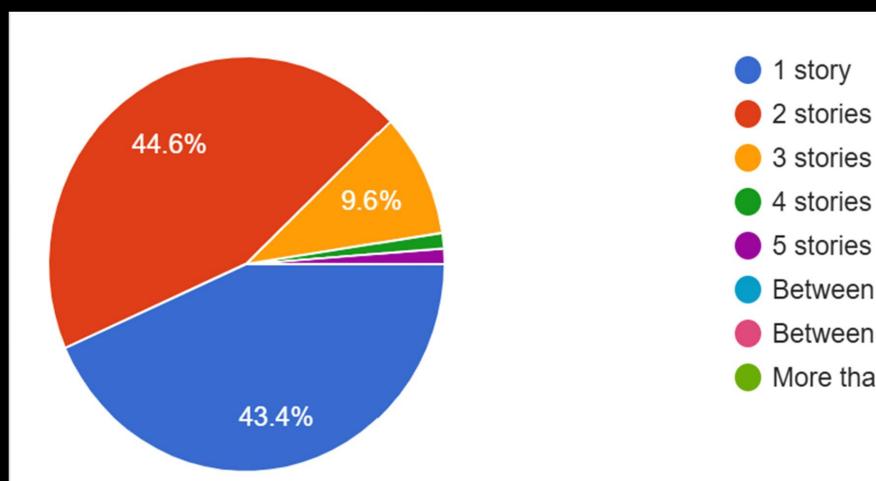
Building construction type



- Wood frame
- Concrete block
- Metal building
- Wood over block

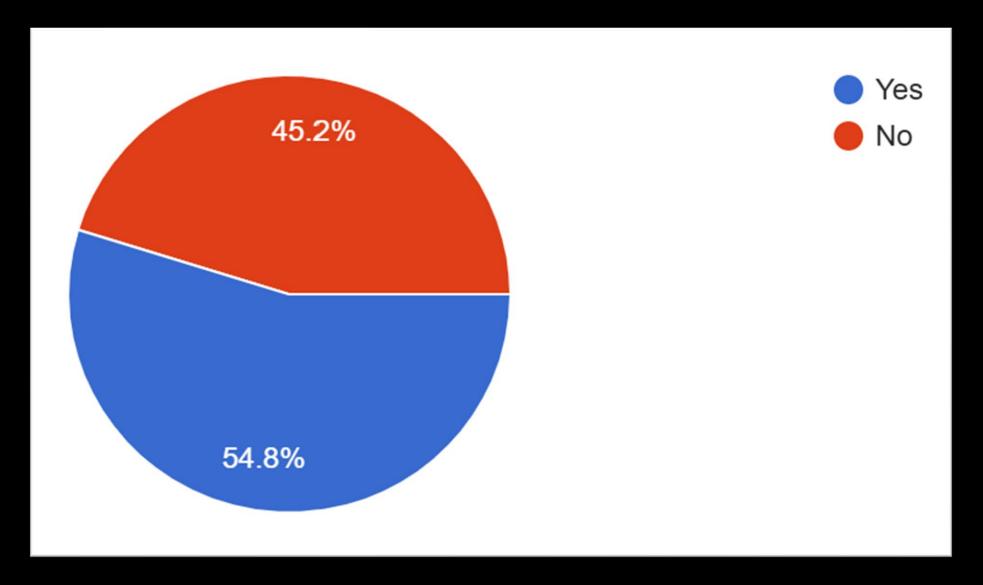


How many above ground floors did the structure have?



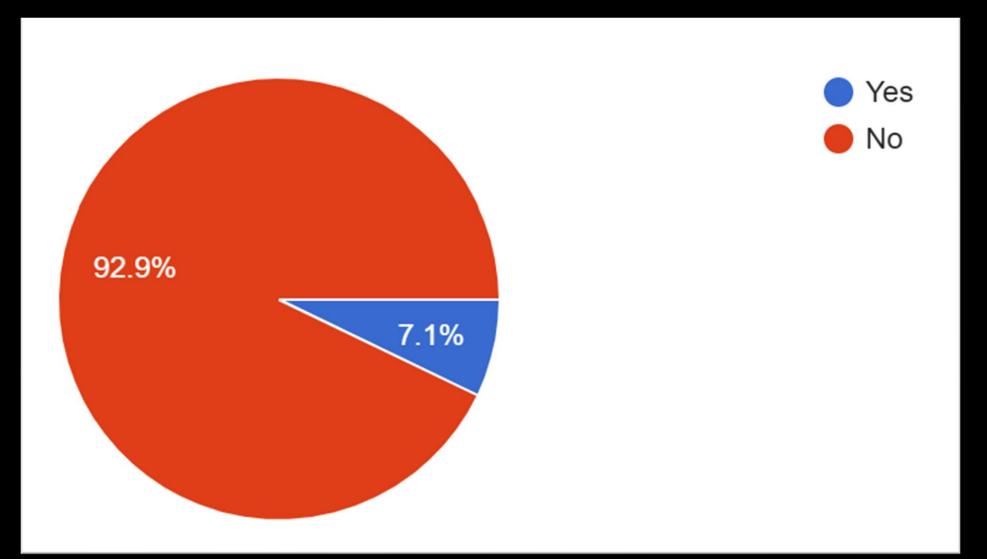


Did the structure have a basement?



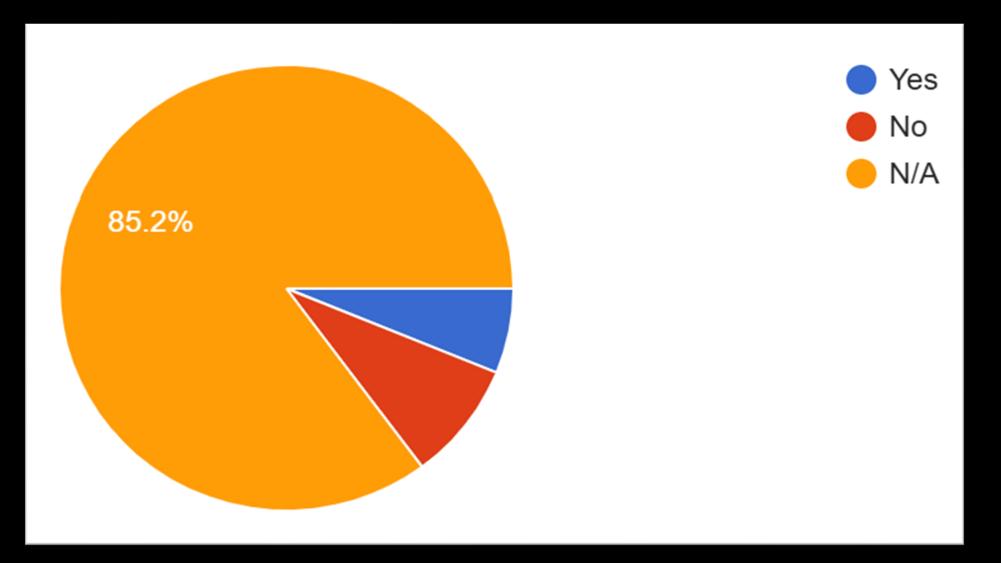


Was the structure sprinklered?



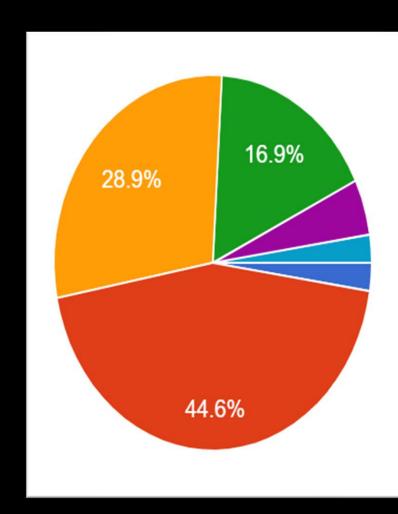


If so, did the sprinkler(s) activate?





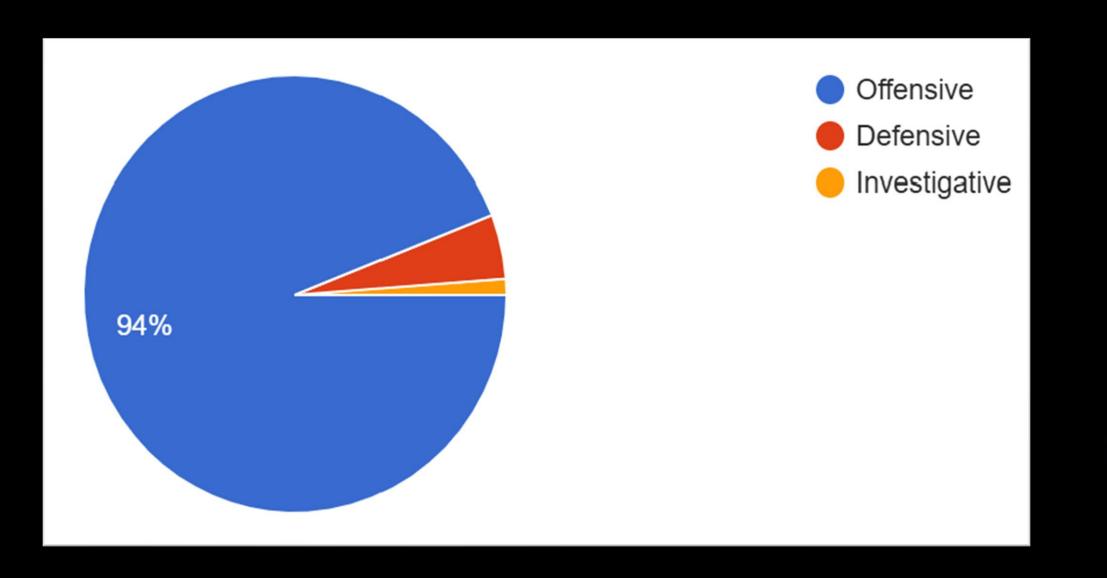
What were the exterior fire conditions for the initial arriving FD company?



- Nothing showing
- Smoke showing only (No visible fire from exterior)
- Under 25% involved with fire
- 26% 50% involved with fire
- 51% 75% involved with fire
- Over 75% involved with fire

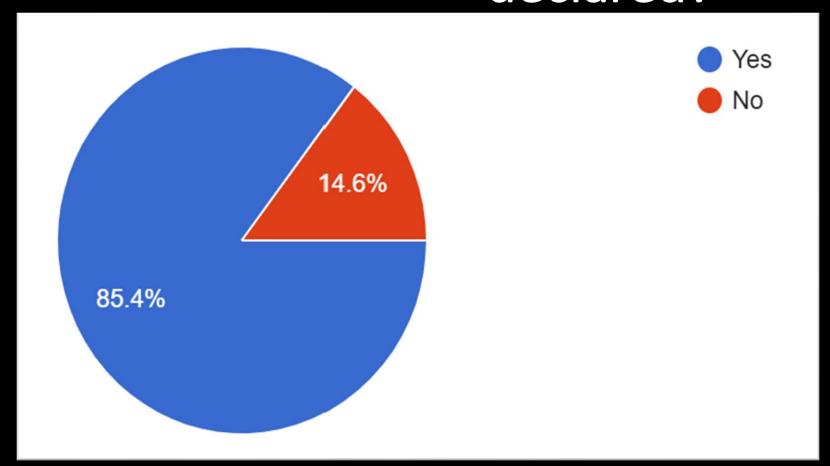


What was the initial attack mode?



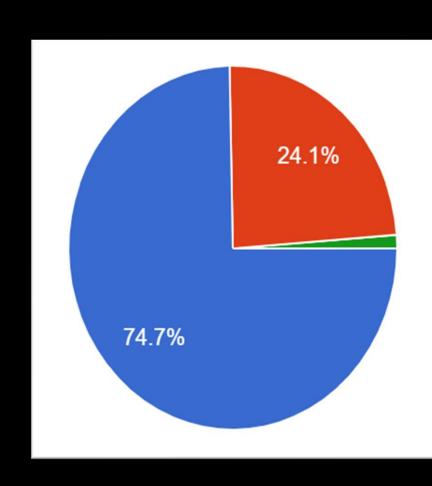


Was a hoseline in place and flowing at the time the Mayday/Emergency message was declared?





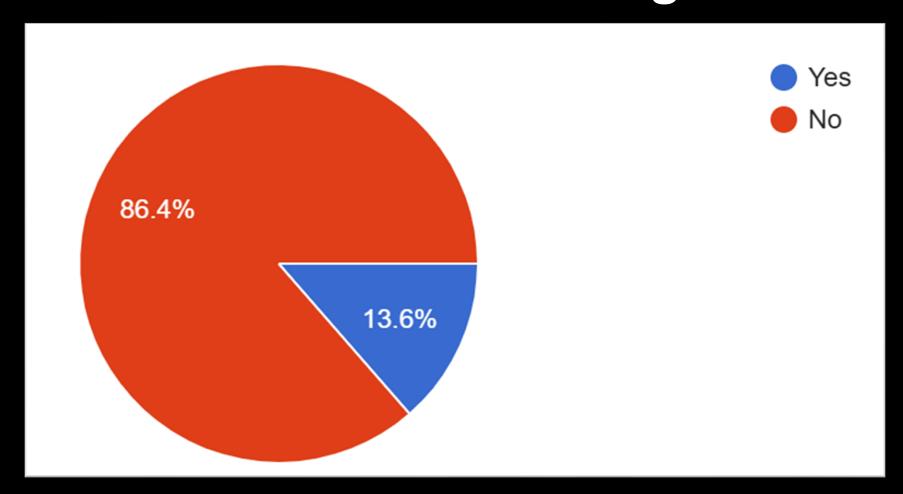
How was the need for Mayday/Emergency message made known?



- Over the air radio transmission request for help
- Visualization of firefighter in distress
- PAR check with lacking accountability
- Audible PASS alarm was noted

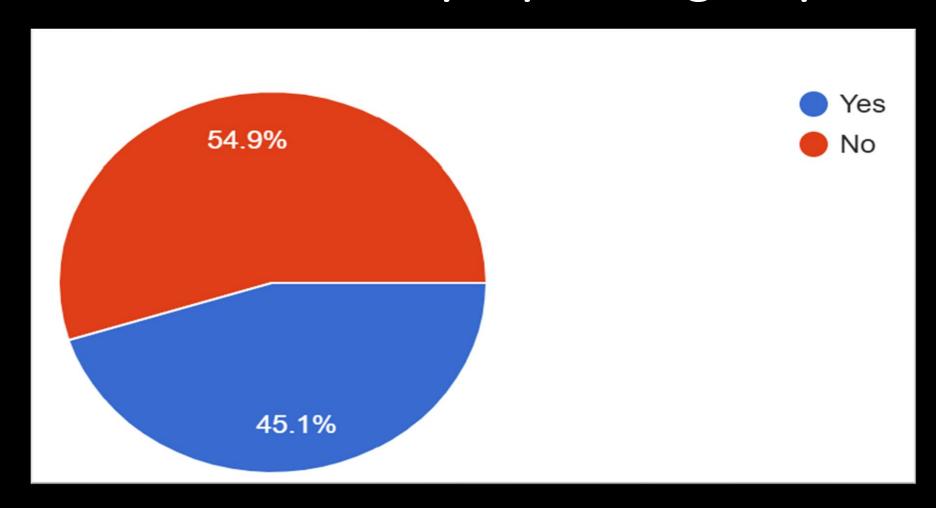


Was the red emergency button on the radio activated to transmit the Mayday/Emergency message?





In your organization, is it policy to activate the red emergency button on your radio to transmit a Mayday/Emergency message?





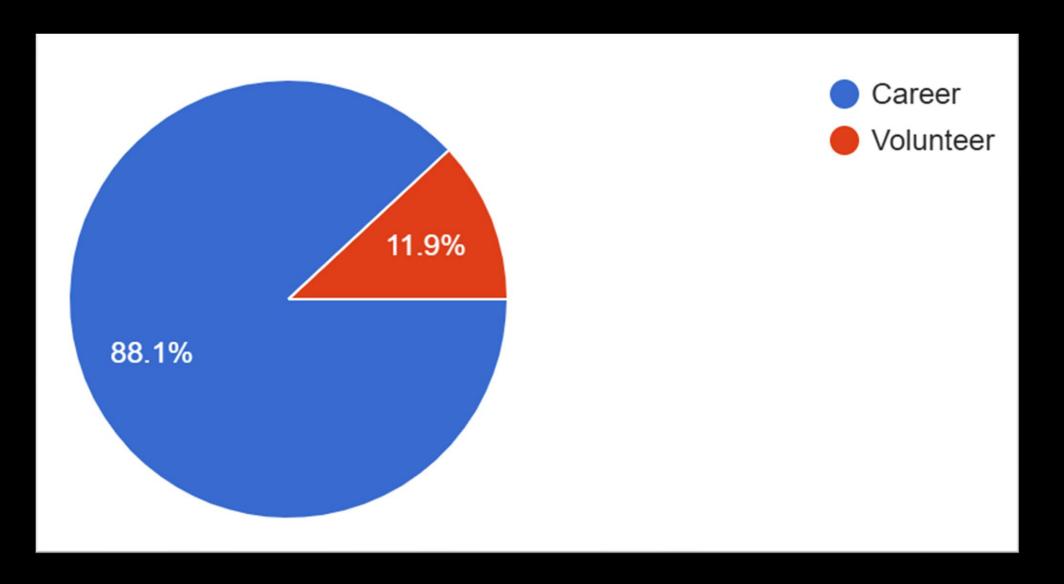
FID (Firefighter In Distress)

- 88% reported to be career firefighters and 79% were working their regularly assigned shift.
- 65% were working with their regularly assigned crew. 16% said they were working overtime or a time trade and 12% stated they were on the back half of a double (between ~24-48 hours on-duty).
- 57% of reported Maydays occurred between 0-12 hours onduty, and 30% occurred between 13-24 hours on-duty. 74% responded to 0-5 calls prior to the declared Mayday.

- 76% reported to have received formal survival training.
- 65% reported to be assigned to fire attack (interior) and 23% were assigned to primary search.
- 53% were located on the first floor, 27% were located in the basement, and 17% were located on the second floor.
- 90% of the time the FID was located in the same area as declared in the Mayday and 82% attempted self-rescue.
- 88% did not activate their PASS alarm.

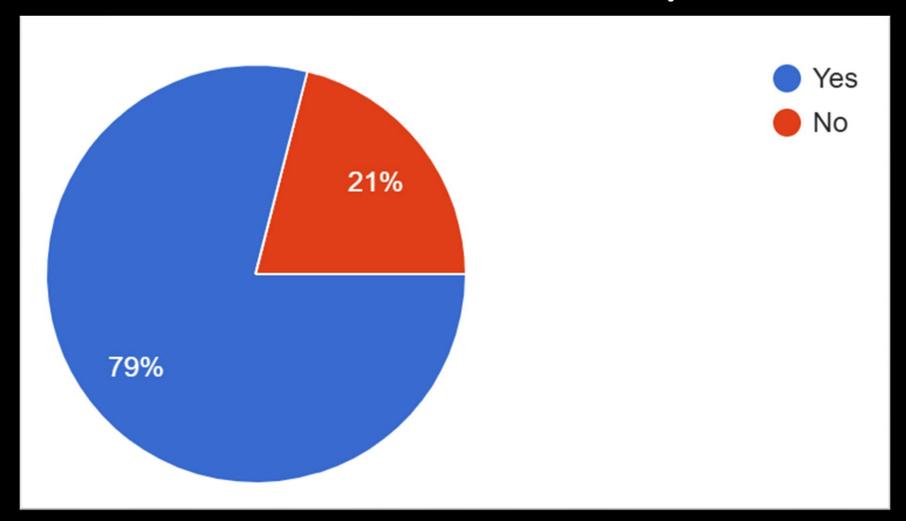
- 50% of respondents state their department policy uses LUNAR (Location Unit Name Air Supply Resources Needed) and 30% reported their agency uses WWW (Who What Where).
- 84% of Firefighters in Distress were located as conscious and alert and 94% had their SCBA mask on.
- 87% were reported to be ambulatory and roughly half had a tool in their possession.
- Less than 16% had to be fully removed by others.

Was the FID career or volunteer?



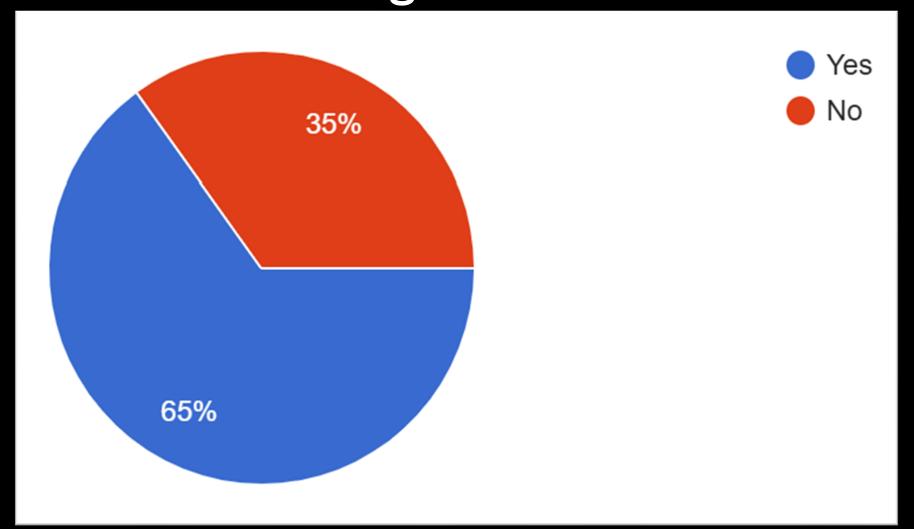


Was the FID working their regular assigned shift day?



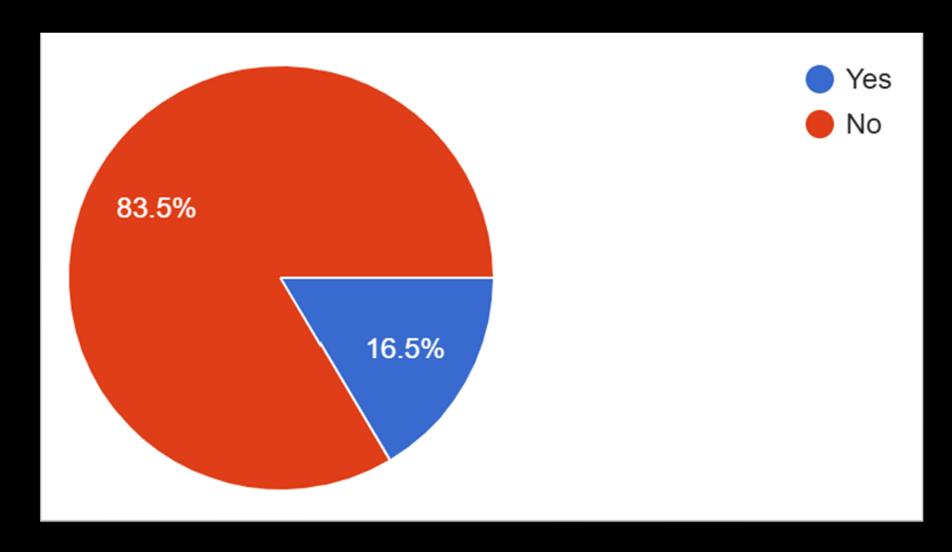


Was the FID working with their regular assigned crew members?



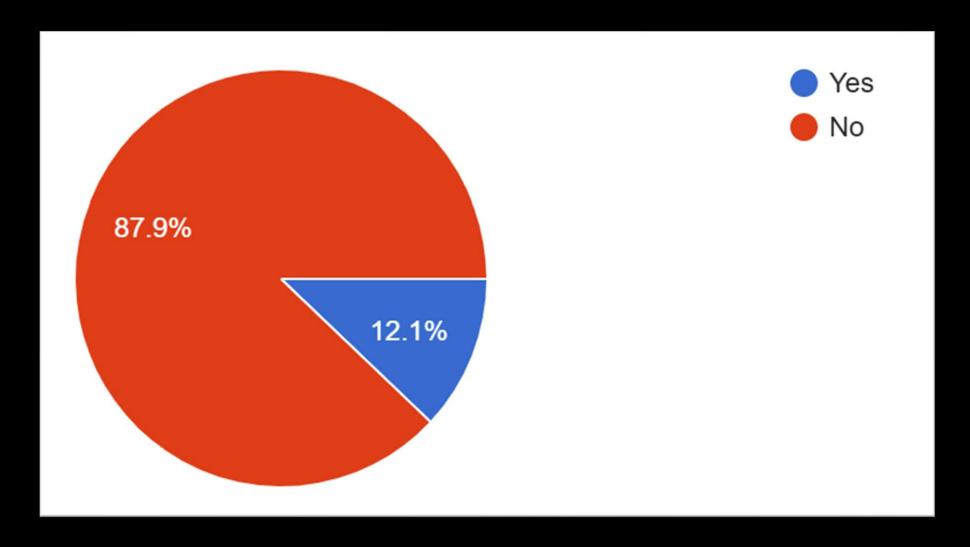


Was the FID working a double (working overtime or time trade)?



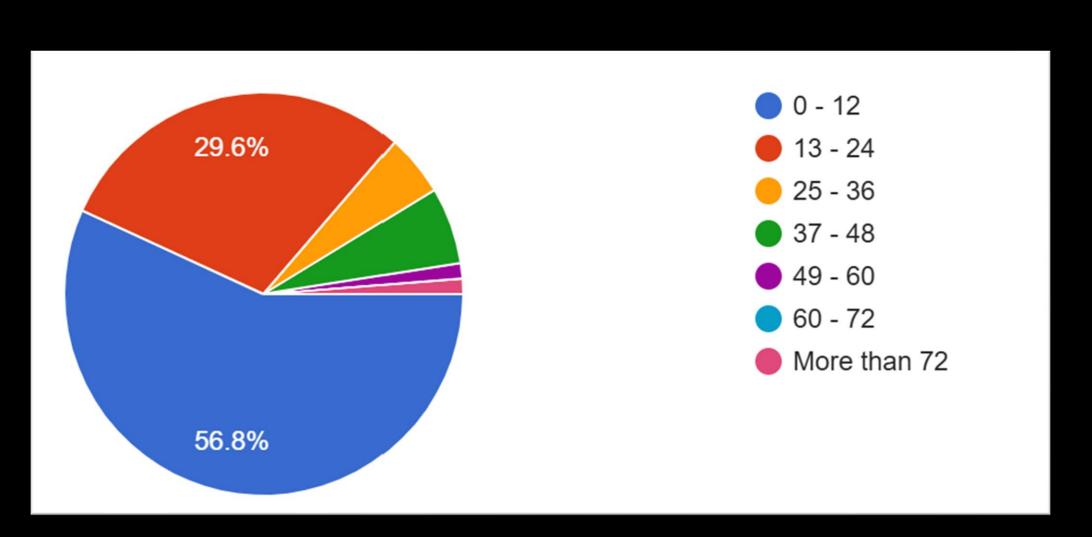


If yes, was the FID working the back half of the double?



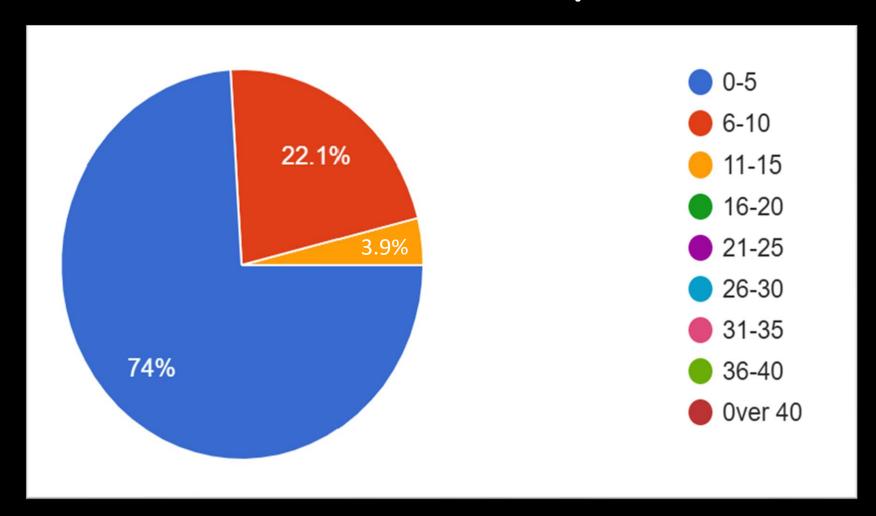


How many consecutive hours was the FID working prior to the mayday incident?



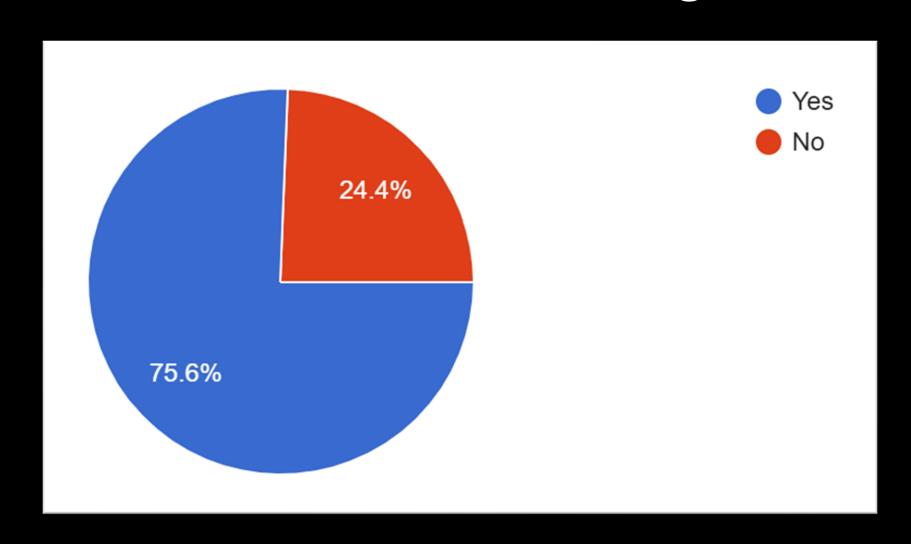


How many calls did the FID respond to since the start of their shift set, prior to the mayday call?



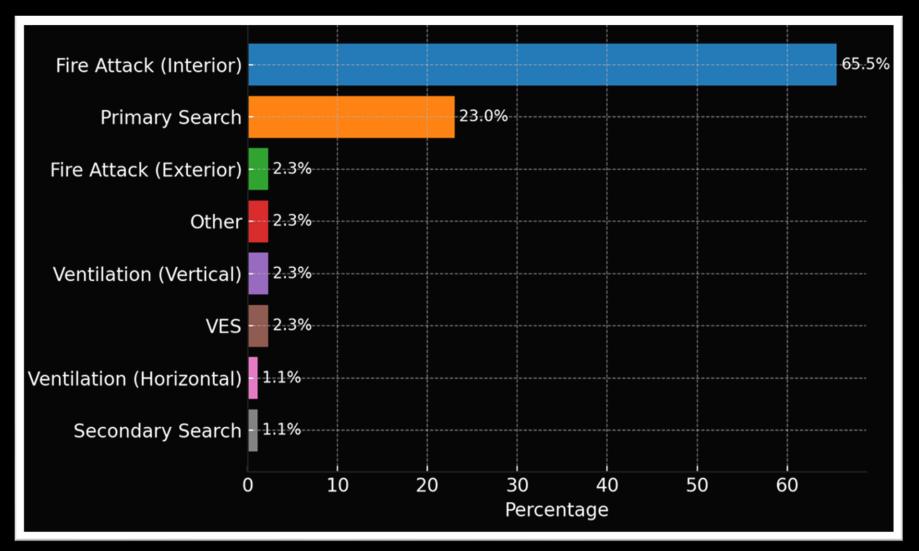


Did the FID have formal/accredited survival training?



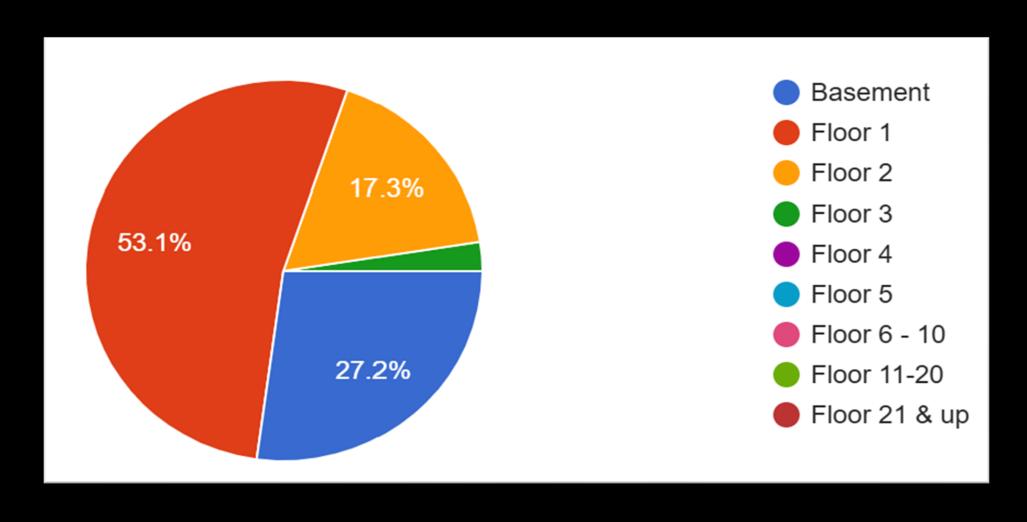


Fireground assignment of FID



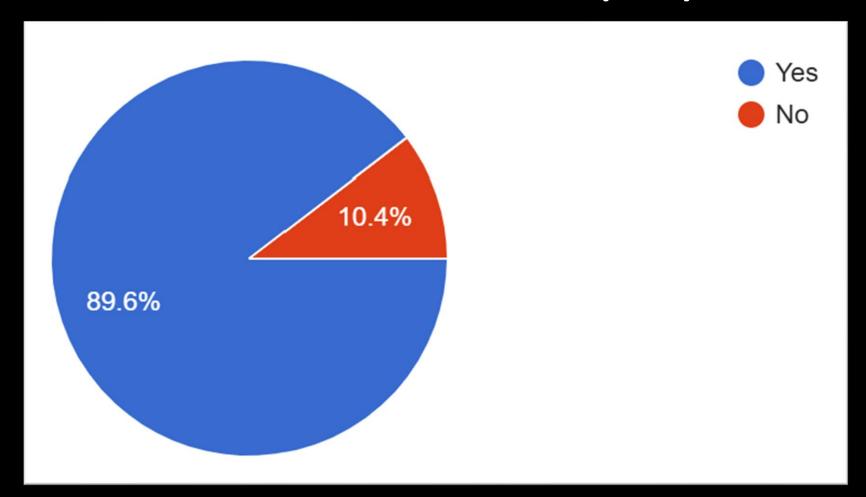


What floor was the FID located on at the time the Mayday was declared?



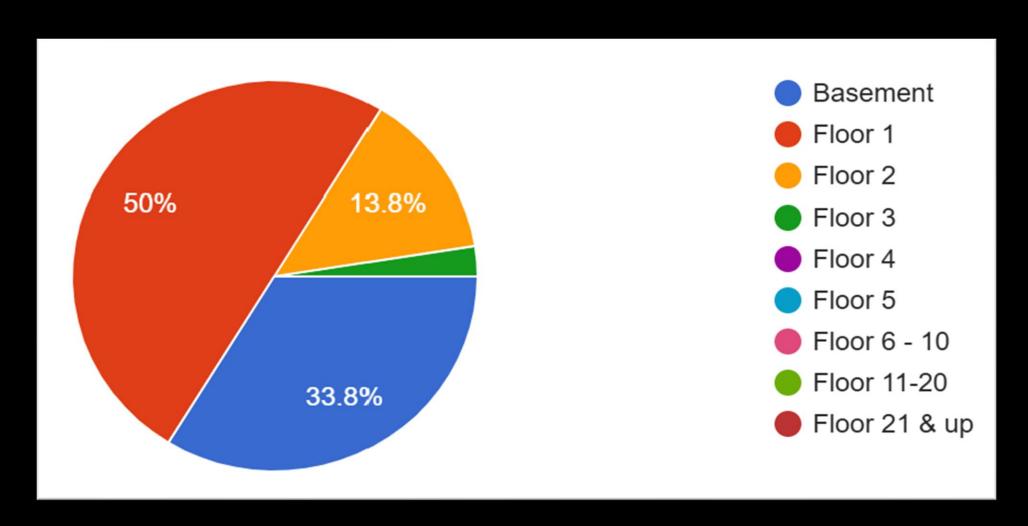


Was FID located in the same area as declared in Mayday?



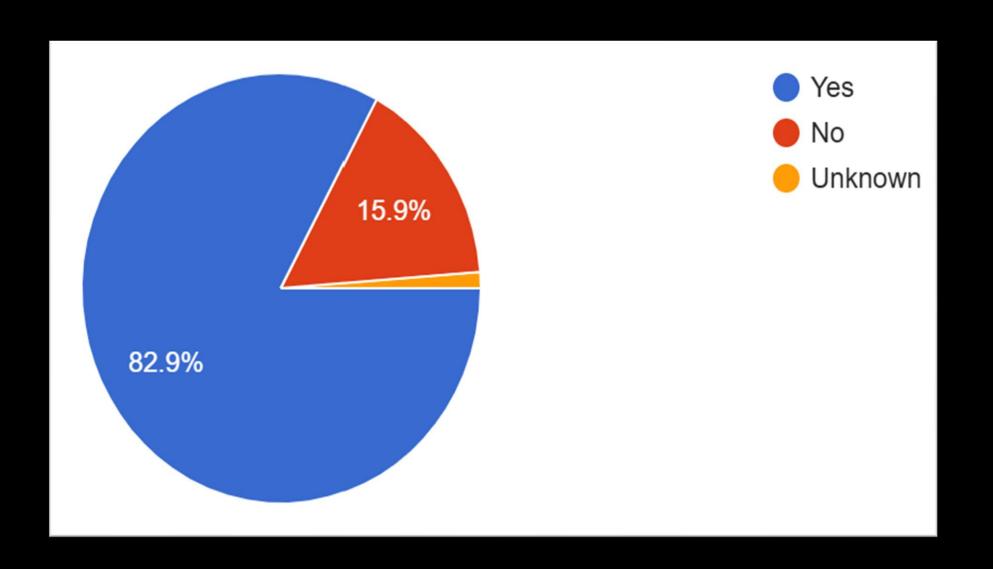


What floor was the FID located on upon discovery?



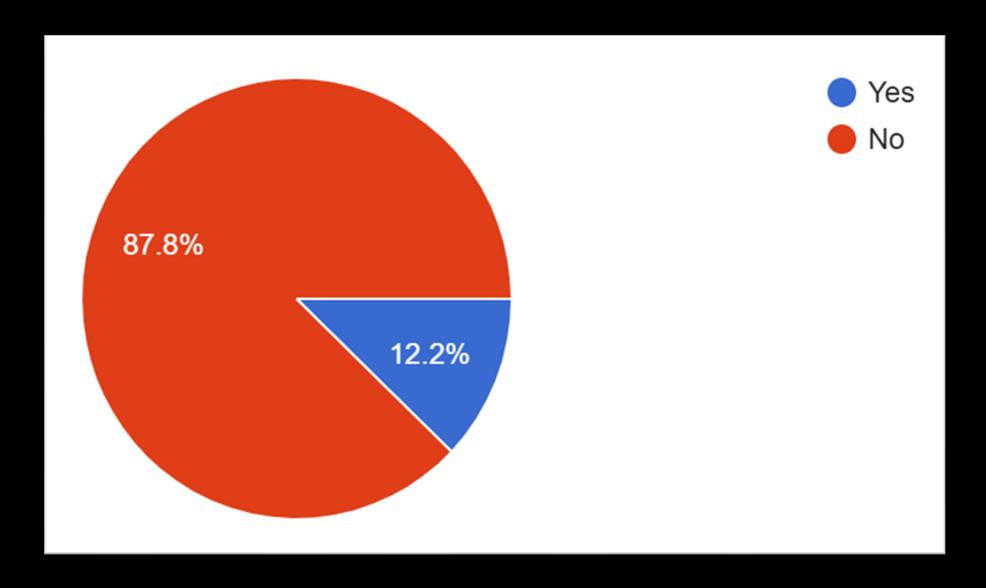


Did the FID attempt self-rescue?





Did the FID activate their PASS alarm?





Acronyms for MAYDAY

WWW: Who - What - Where

LUNAR: Location - Unit - Name - Air Supply - Resources Needed

CAN: Conditions - Actions - Needs

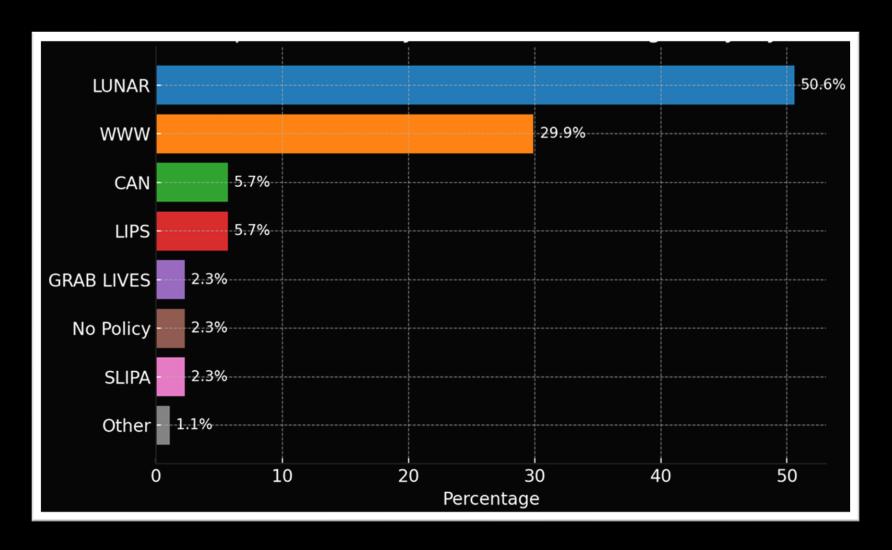
LIPS: Location - Identification - Problem

GRAB LIVES: Gauge - Radio - Activate - Breathing Low - Illuminate - Volume (make noise) - Exit (find one) - Shield Airway

SLIPA: Size-Up - Locate - Identify - Package - Air

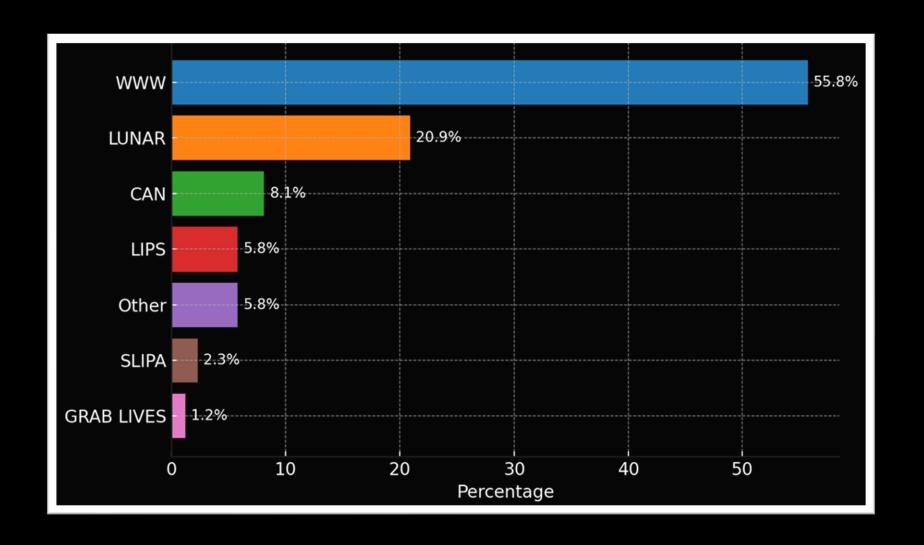


Department policy format for declaring a Mayday



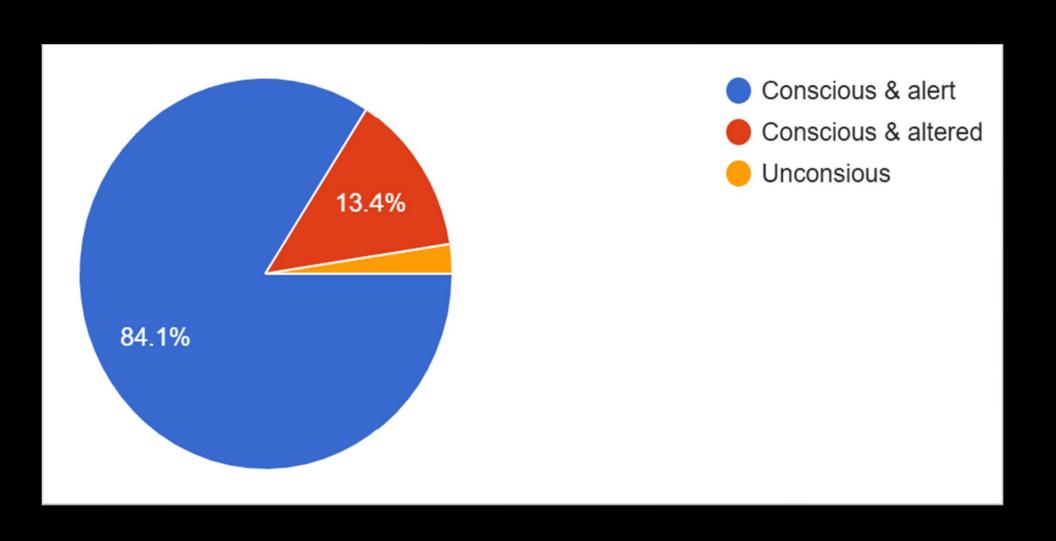


Format used to declare the Mayday



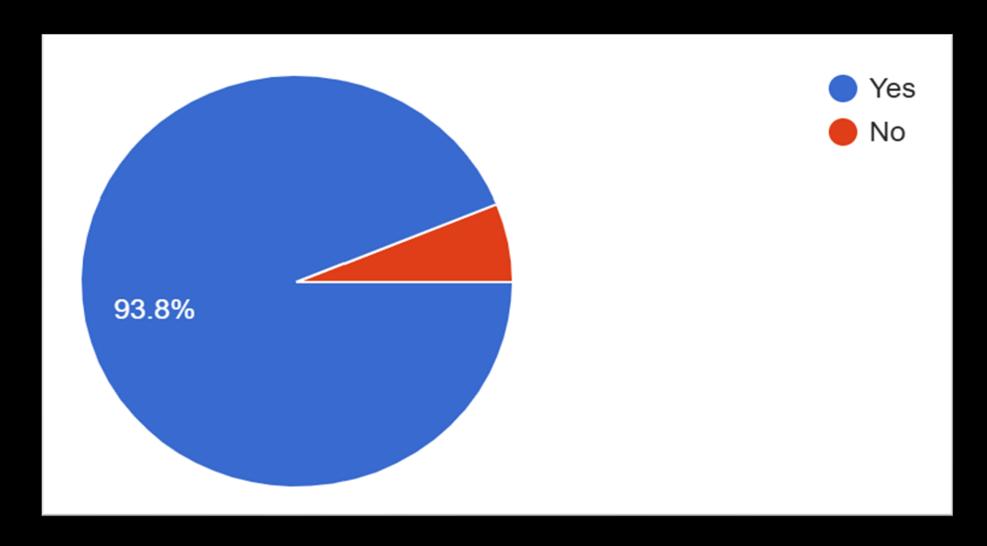


What mental state was the FID in upon discovery?



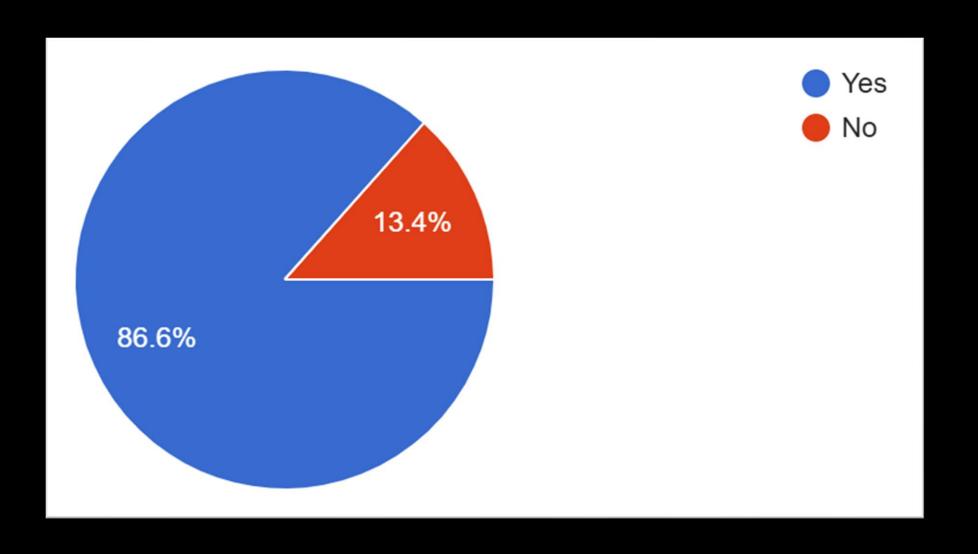


Did the FID have their SCBA mask on their face upon discovery?



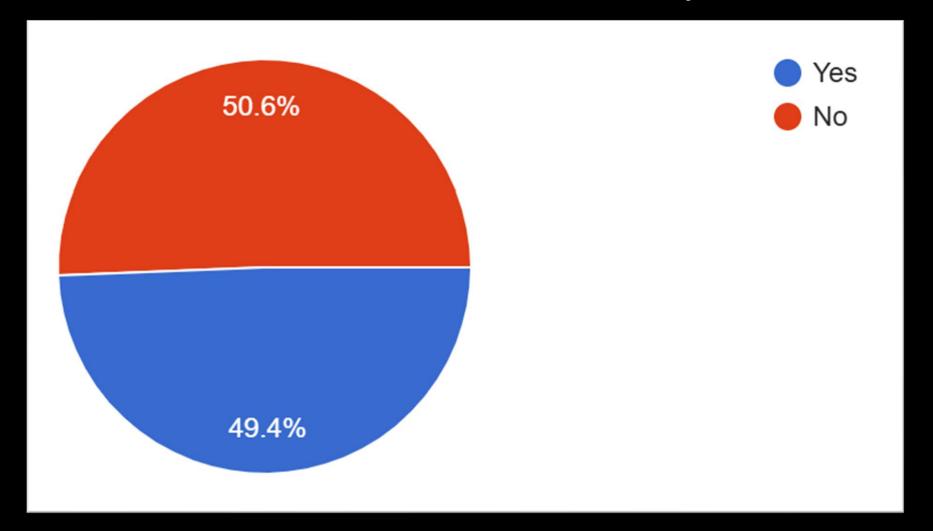


Was the FID ambulatory upon discovery?



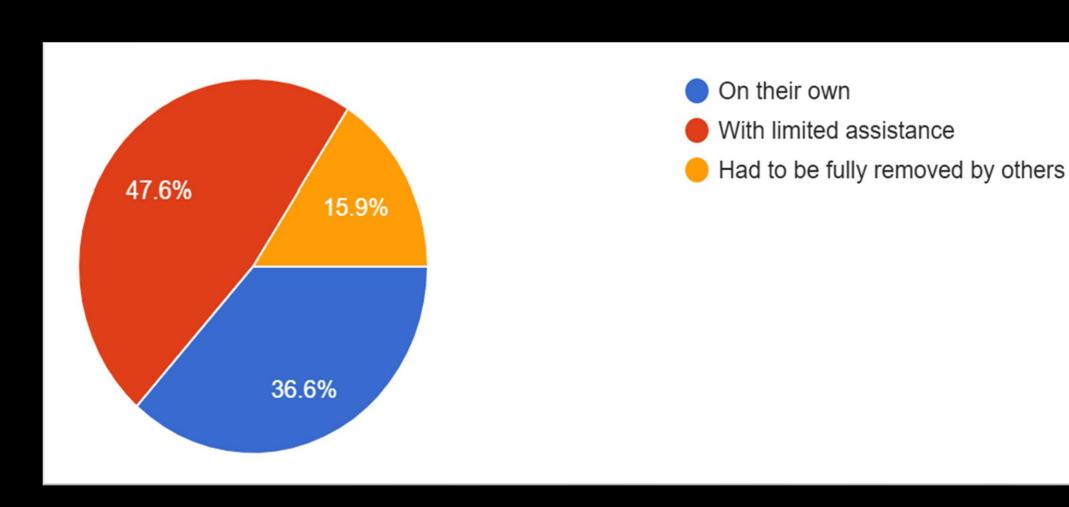


Did the FID have a tool with them upon discovery?





How was the FID removed from the IDLH?





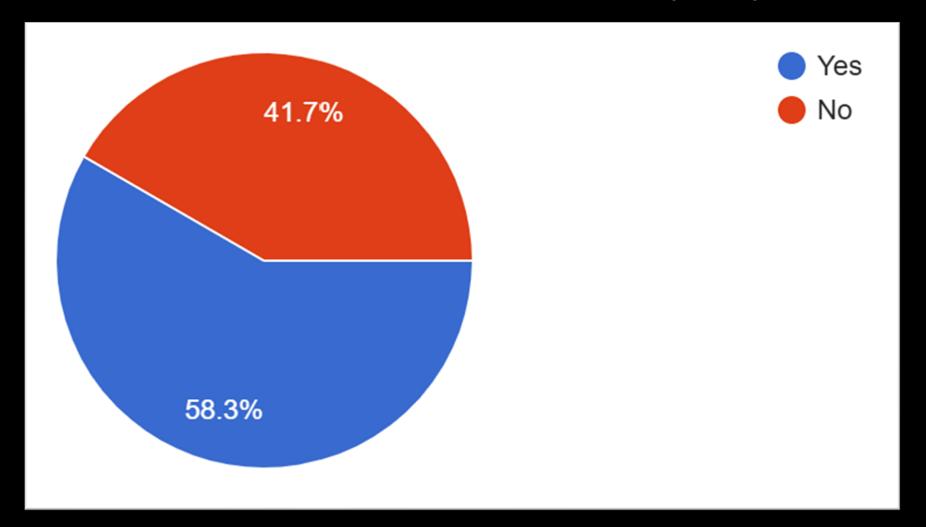
RIT / Rescue Team

- 58% of the time a formal RIT team was established prior to the Mayday.
- 50% of respondents stated there were either three or four firefighters on the initial RIT team and 40% reported that the RIT team was deployed.
- 35% completed a self-rescue, 28% were rescued by their crew, and 17% were rescued by another company operating on the interior.
- 78% reported receiving formal RIT training by their agency. 26% of deployed RIT's needed water protection.

- Less than 5% of FIDs needed air from RIT and less than 4% of RITs used a search line. Upon initial contact with FID, 34% reported zero visibility and 31% reported low visibility.
- 88% of RITs had access to a thermal imaging camera and 34% reported using the thermal imaging camera.
- The factors which best contributed to locating the FID were 53% having visual contact and 21% reported their location.
- 20% reported having an air issue.
- 94% reported having a regulator in place and clipped into the mask.

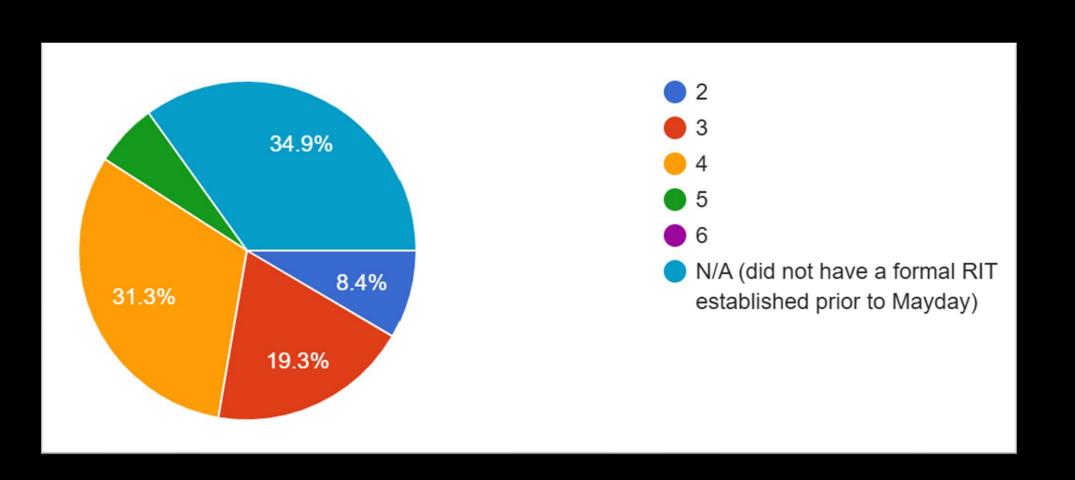
- 39% had greater than 3,000 psi in their SCBA bottle. 49% of incidents reported to have one or two RIT packs available.
- No FIDs were packaged prior to extraction and 62% were removed from the same point of entry used by the RIT. 66% of FIDs were located within 20ft of an egress.
- 55% of RITs used a doorway as an egress point. 21 firefighters were removed using stairs, 15 were removed using ground ladders, and 13 were reportedly removed via windows.
- 73% of FIDs were removed by three firefighters or less.

Was a formal RIT team established prior to the Mayday?



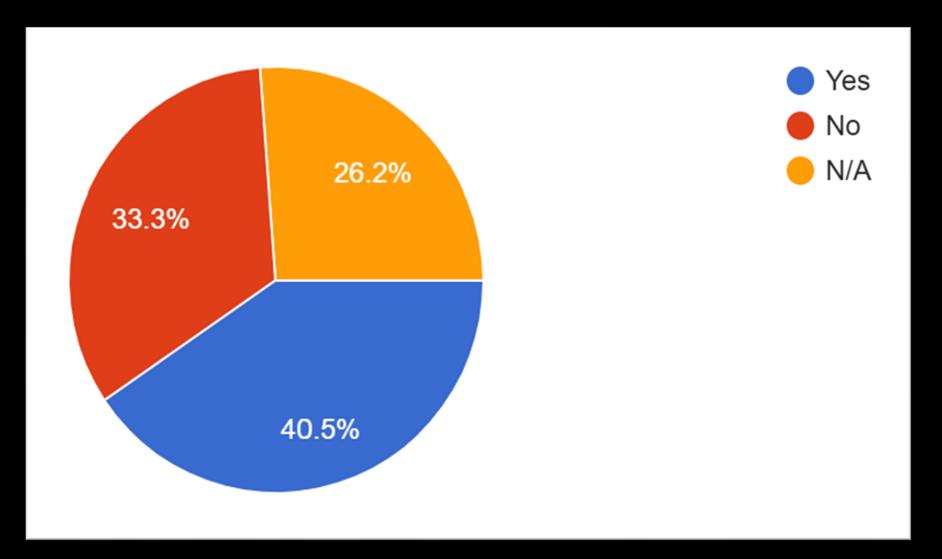


How many firefighters were assigned to the initial RIT team?



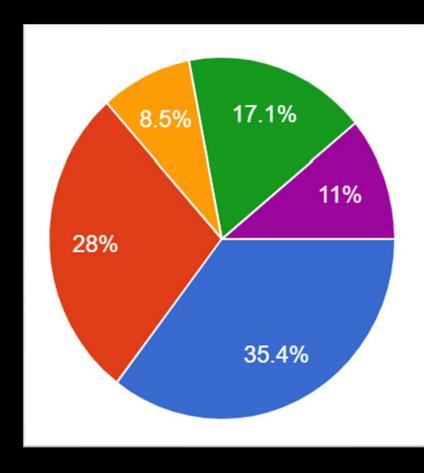


Was the RIT team deployed?





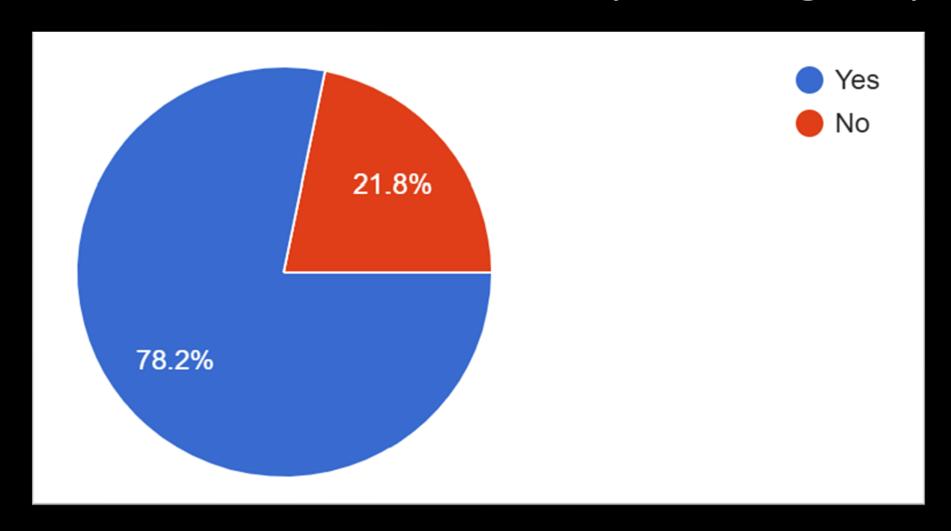
Who affected the rescue of the FID?



- Self Rescue
- FID's crew
- RIT team
- Another company operating on the interior
- Another company operating on the exterior
- Other

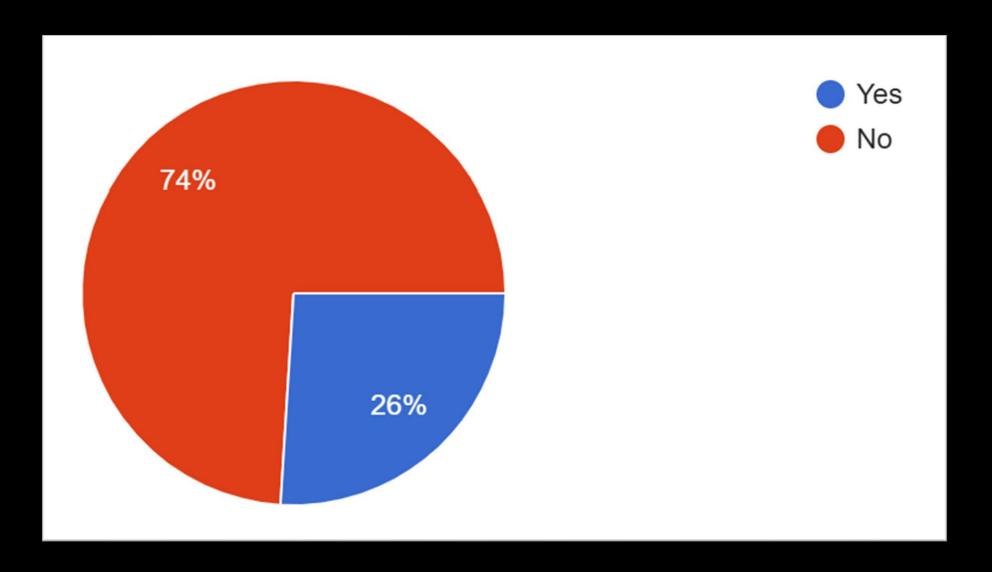


Was formal/accredited RIT training provided to the RIT team by their agency?



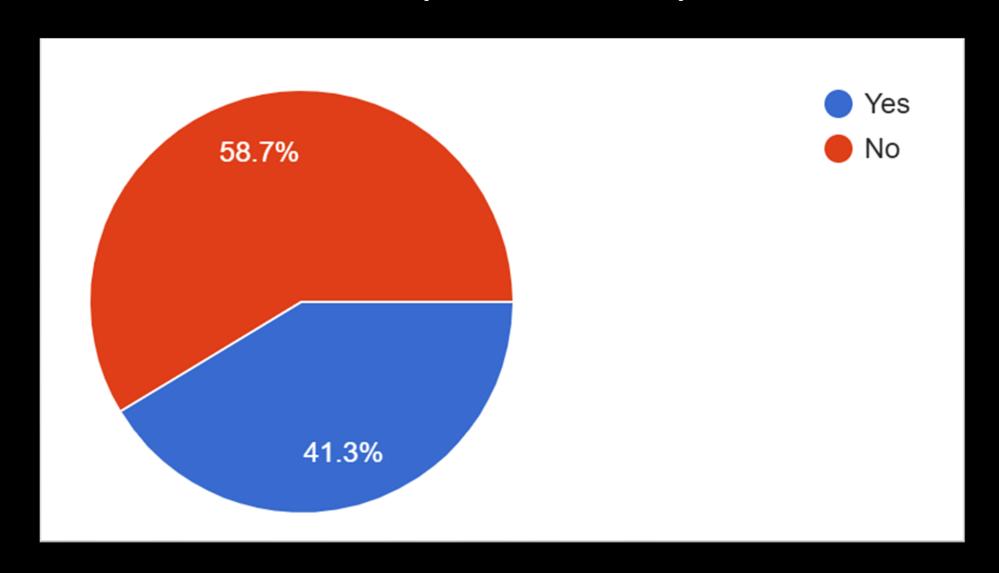


Was water protection needed for RIT?



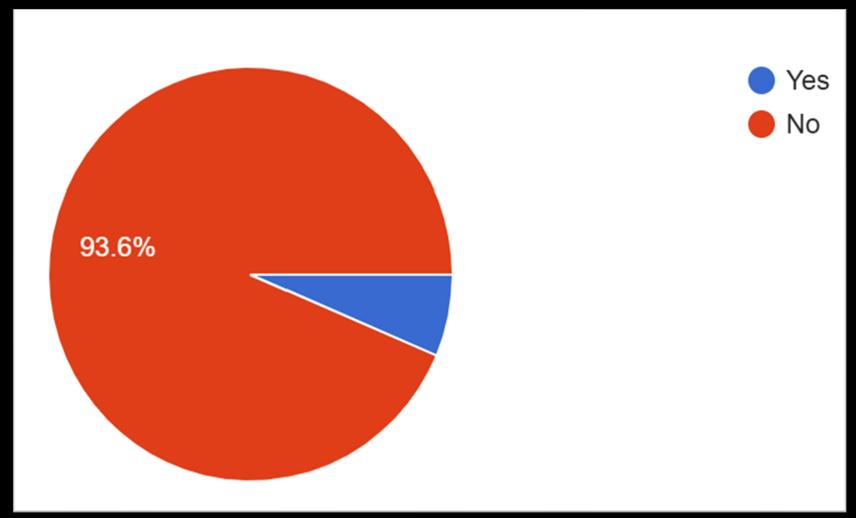


Was water protection provided for RIT?



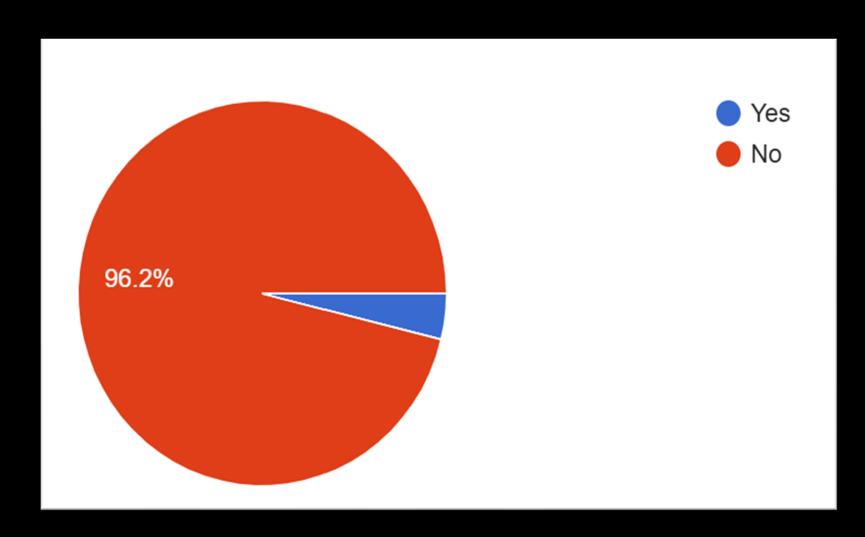


As part of the rescue, was RIT pack needed? (Did the FID need air?)



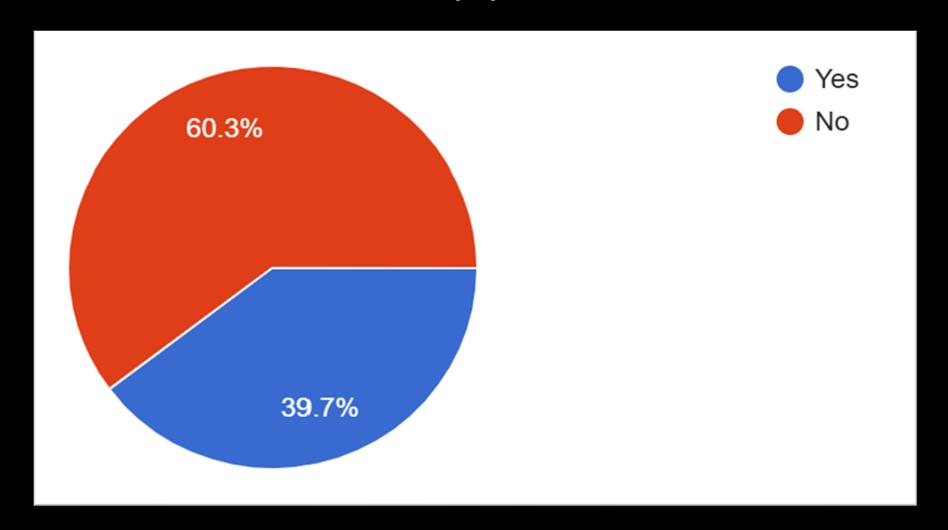


As part of the rescue, was RIT pack used? (Was the FID given air from RIT pack?)



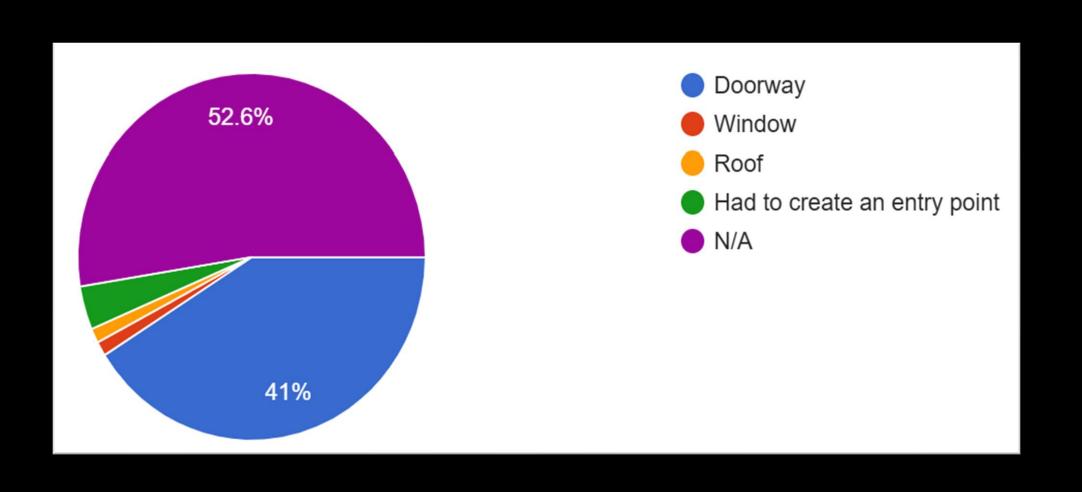


Did the RIT/RC make entry using the same entry point as the FID?



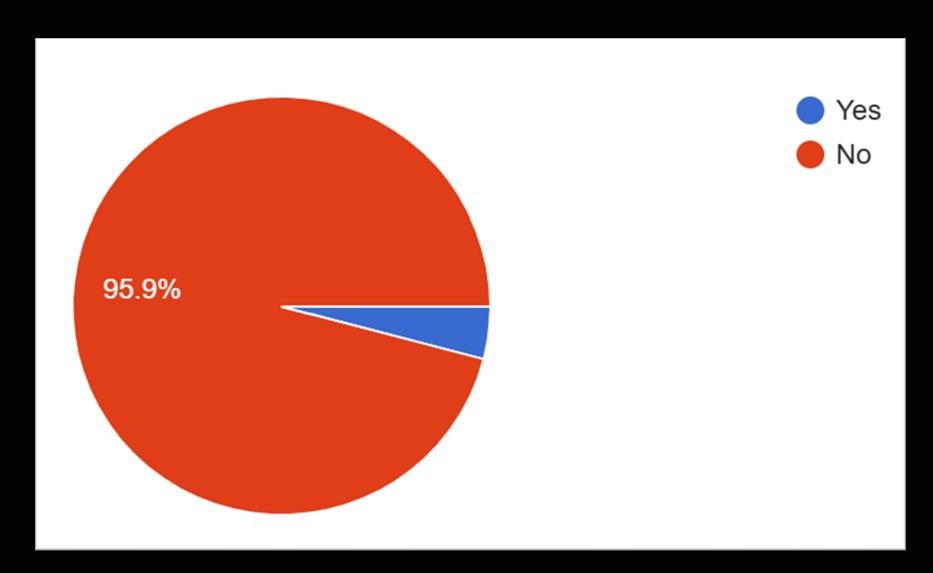


What type of entry point did the RIT/RC use?



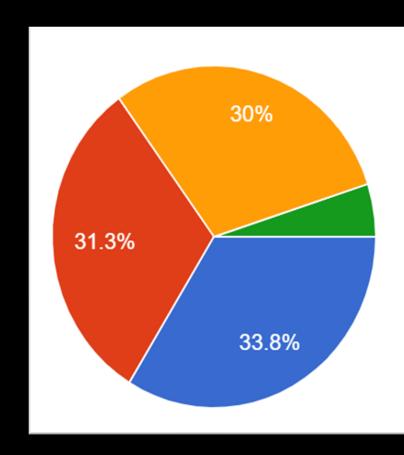


Did the RIT/RC use a search line?





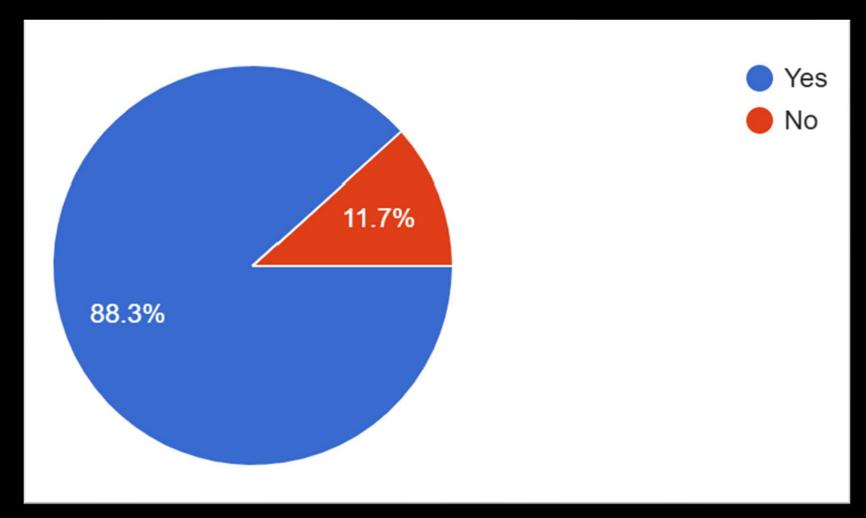
What was the visibility level in the structure upon discovery of the FID?



- Zero visibility (blacked out conditions)
- Low visibility (some visibility from floor to approx. 3 feet off the ground)
- Moderate visibility (smokey and hazy but able to somewhat see while standing)
- Full visibility (clear conditions)

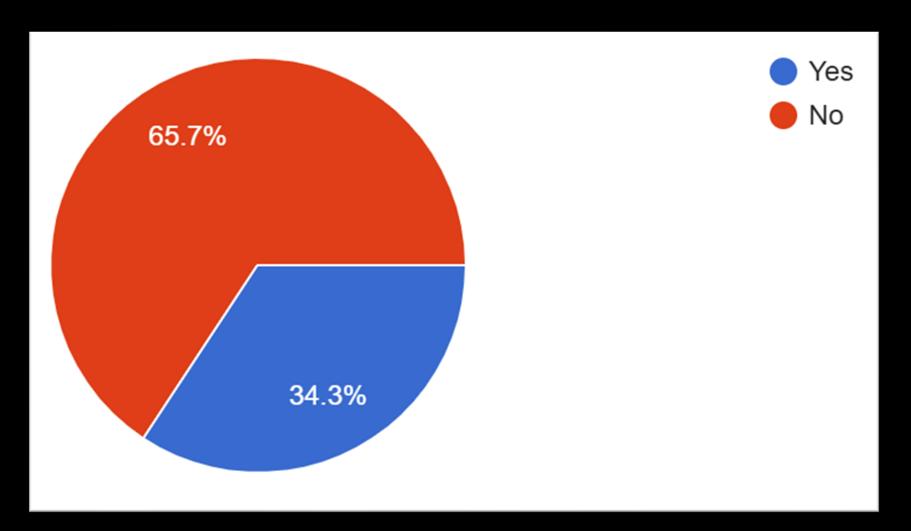


Did the RIT/RC have access to a TIC (thermal imaging camera)?



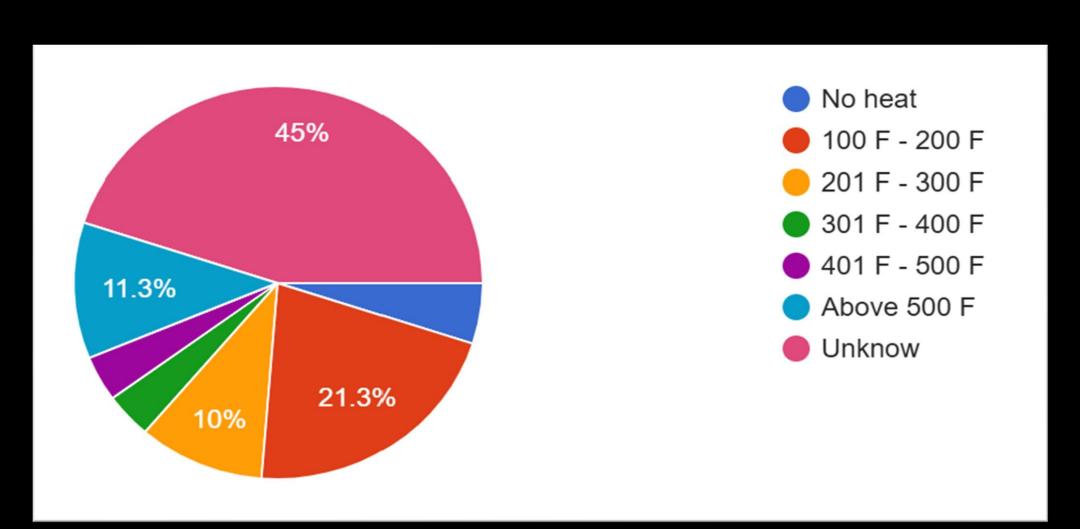


Did the RIT/RC use a TIC (thermal imaging camera)?



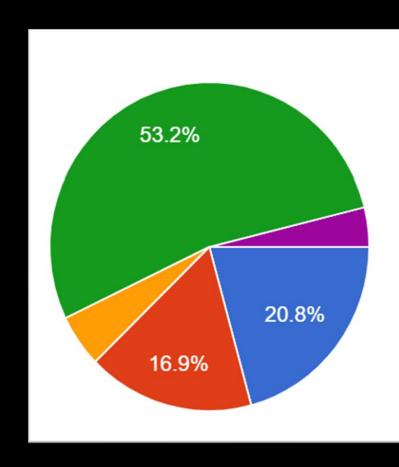


What were the heat conditions (at eye level) in the structure upon discovery of the FID?





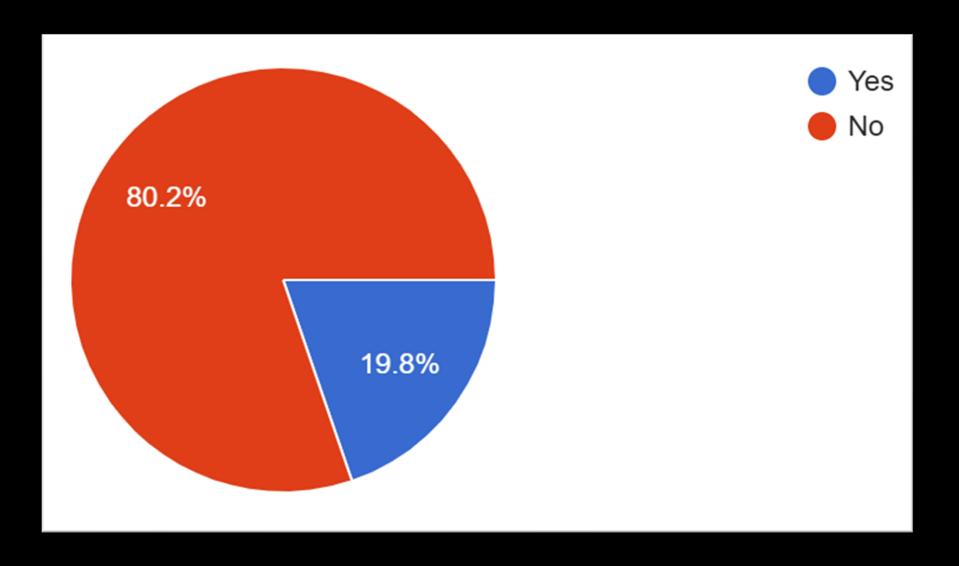
Which of these factors best contributed to locating the FID?



- FID was able to relay their location
- Last know operating location of FID
- PASS alarm sounding
- Someone on scene had a visual on the FID and relayed location
- Traditional primary search starting from the most endangered location of incident

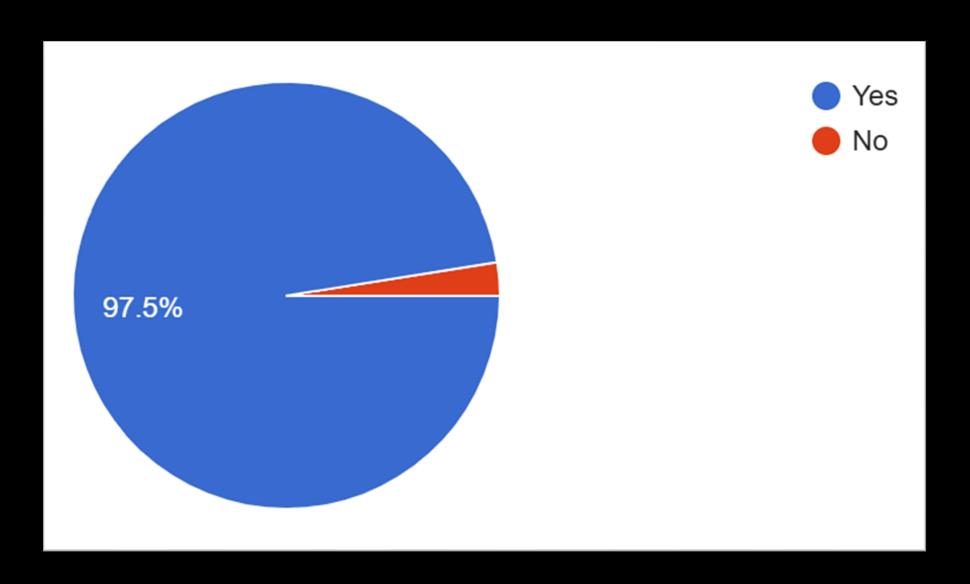


Was the FID experiencing any air issues?



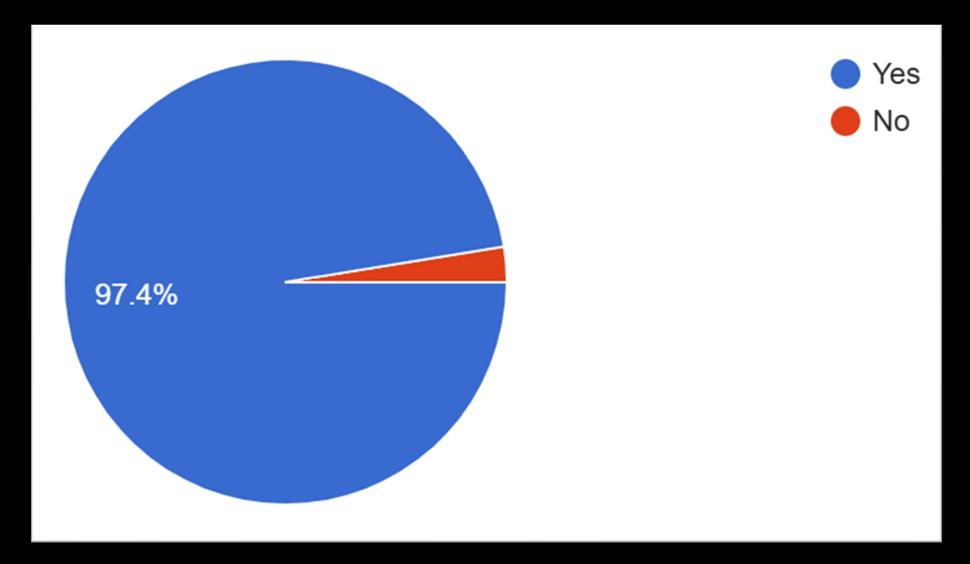


Was the FID's mask intact?



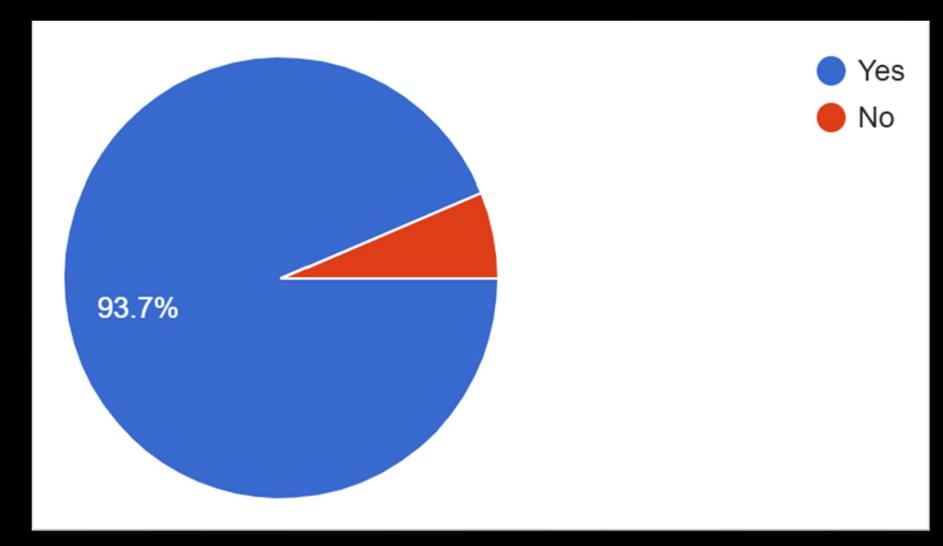


Was the FID's regulator intact?



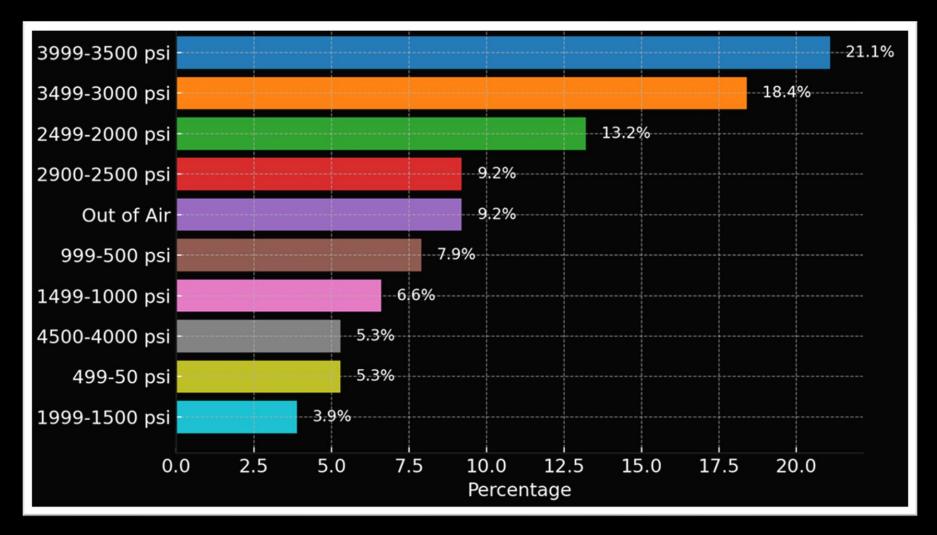


Was the FID's regulator in place, clipped into their mask?



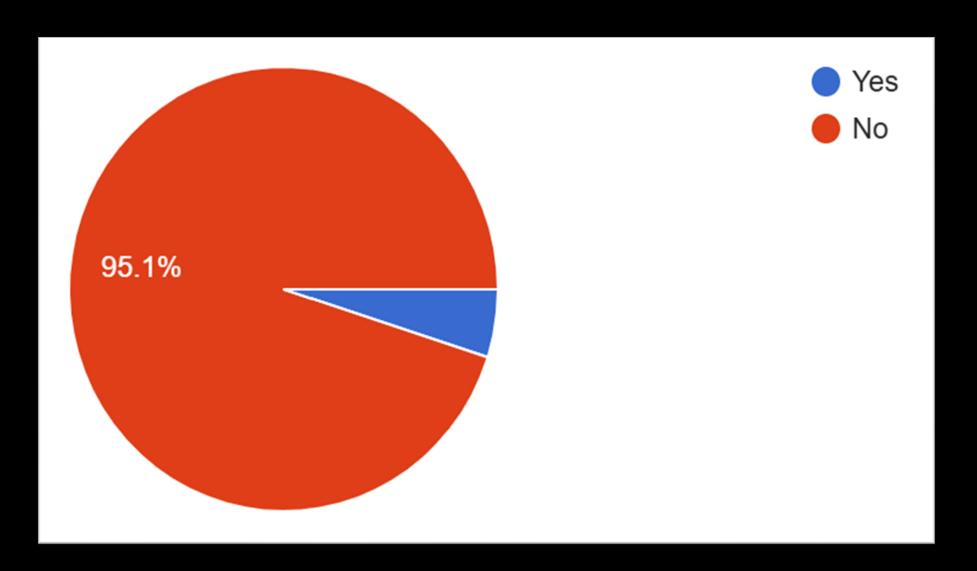


Air remaining in bottle of FID upon discovery



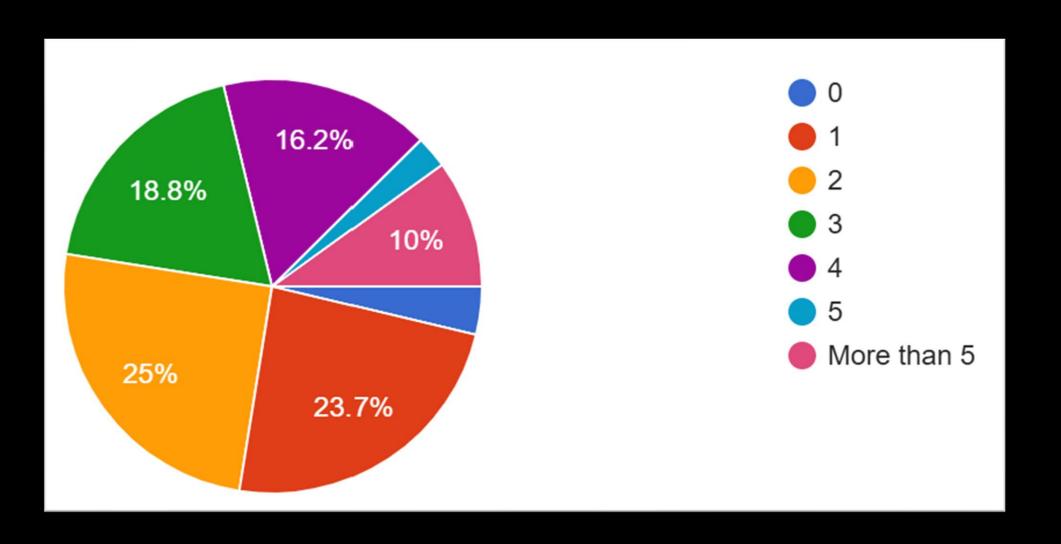


Was the FID given air?



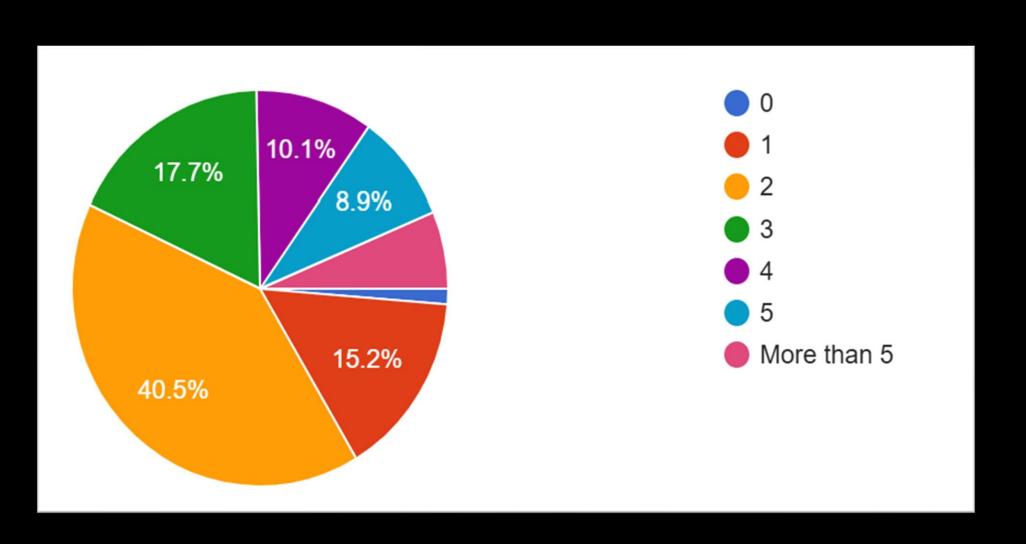


How many RIT packs were available on scene when Mayday/Emergency message was declared?



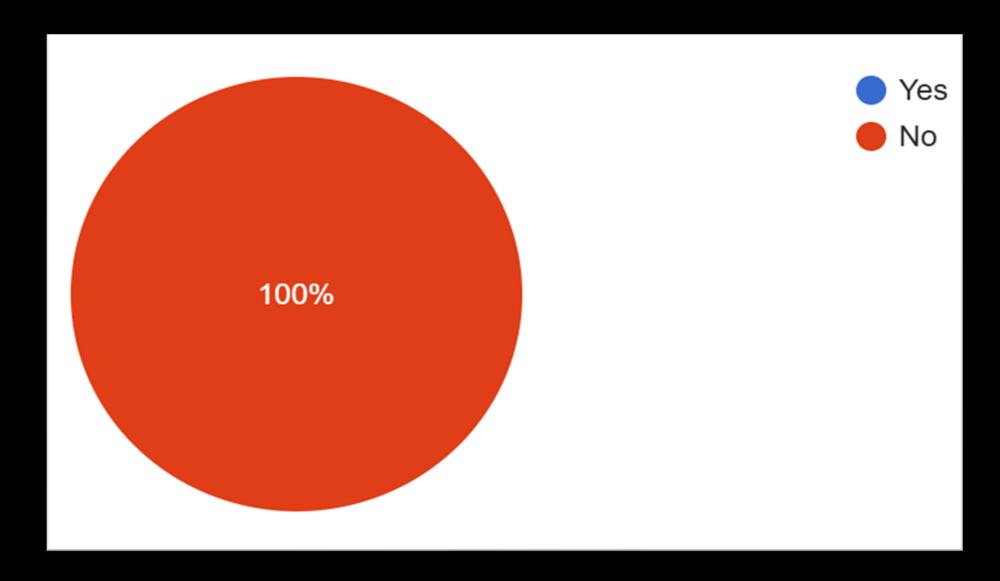


How many RIT packs are available when all your 1st alarm units are on scene?



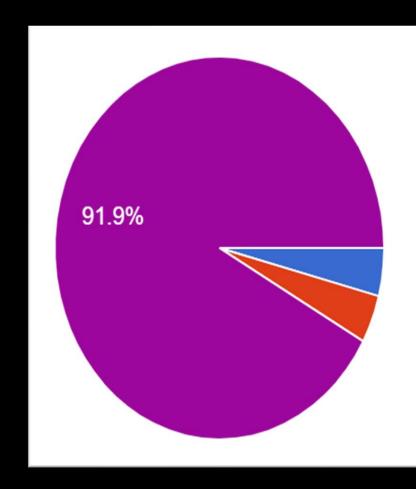


Was the FID packaged prior to extraction?





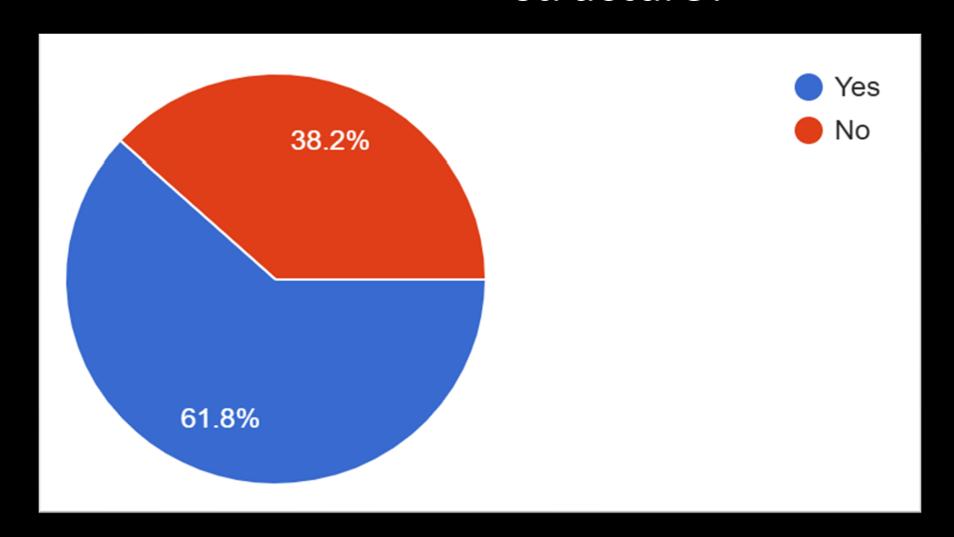
If no, what method was used to extract them from IDLH?



- Dirty drag (head first, using the SCBA shoulder starps as grab points)
- Dirty drag (head first, using FID'S arms)
- Dirty drag (feet first)
- 4-point carry (2 at the head, 2 at the legs)
- FID was ambulatory

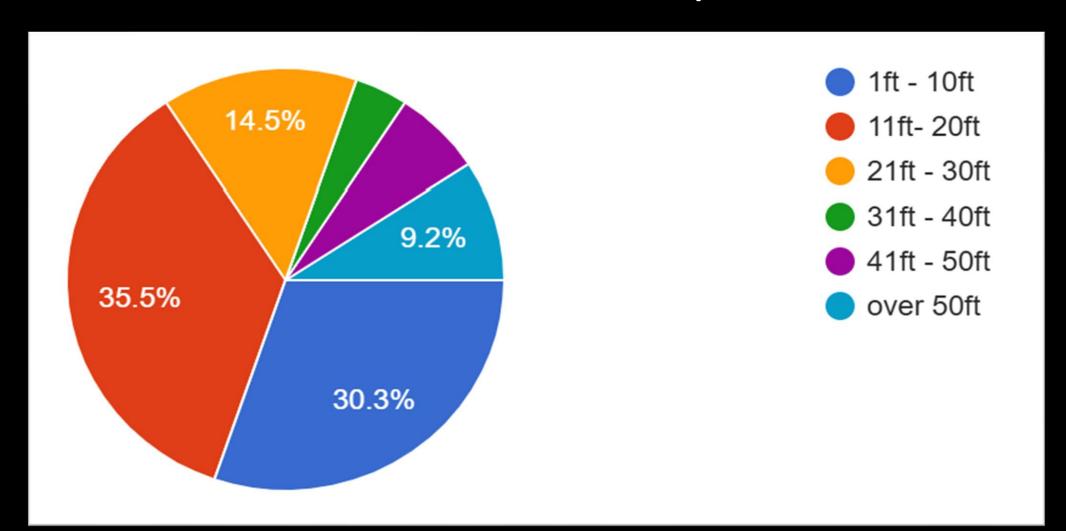


Was the FID removed from the IDLH using the same entry point that the RIT/RC used to access the structure?



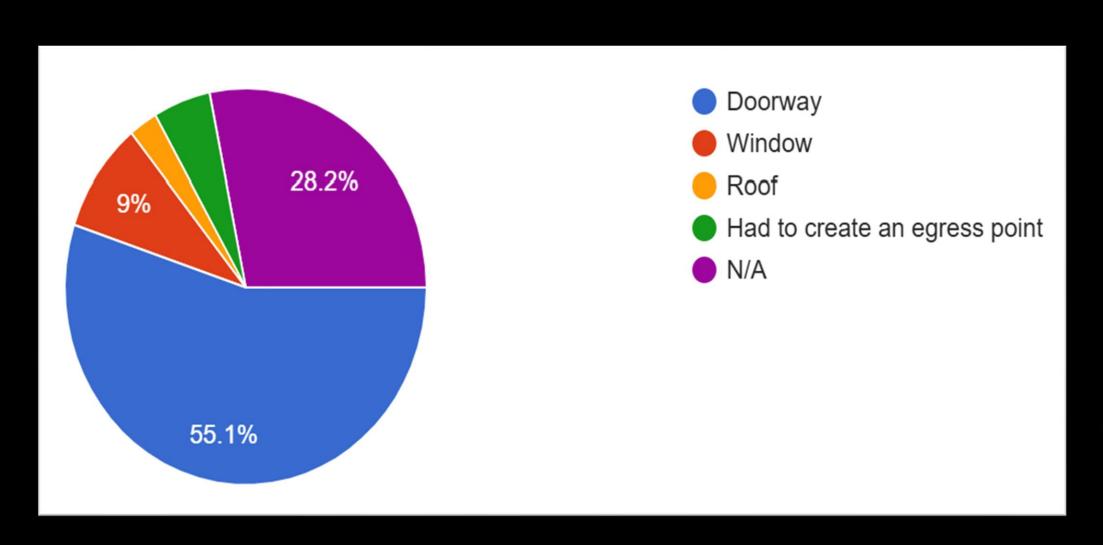


How far was the egress used to remove the FID from the discovery location?



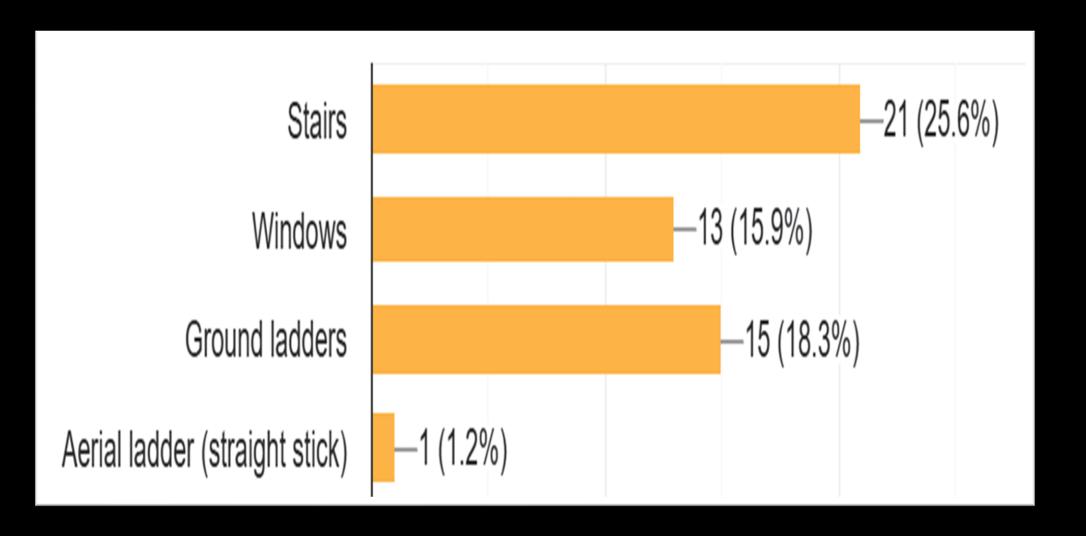


What type of egress point did the RIT/RC use?



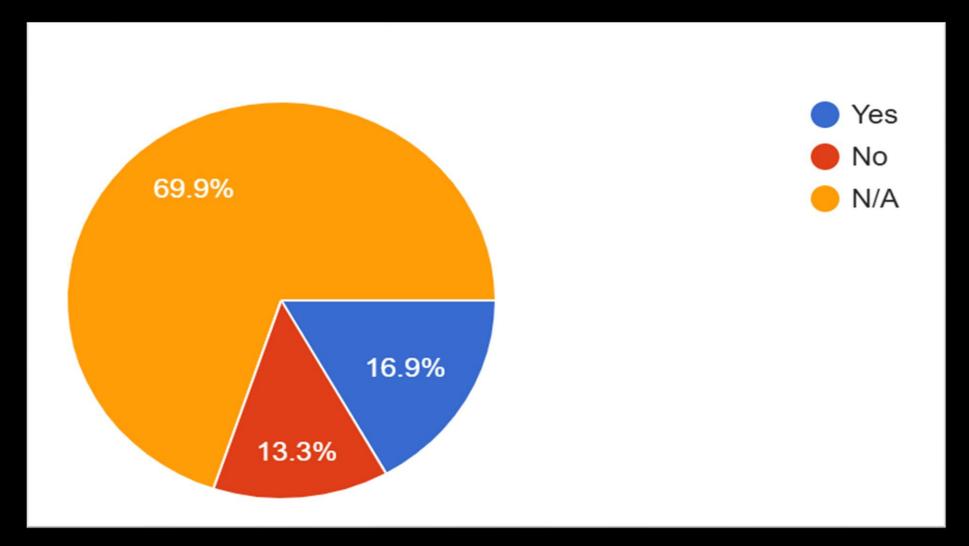


Indicate the mean(s) by which the FID was removed from the IDLH?



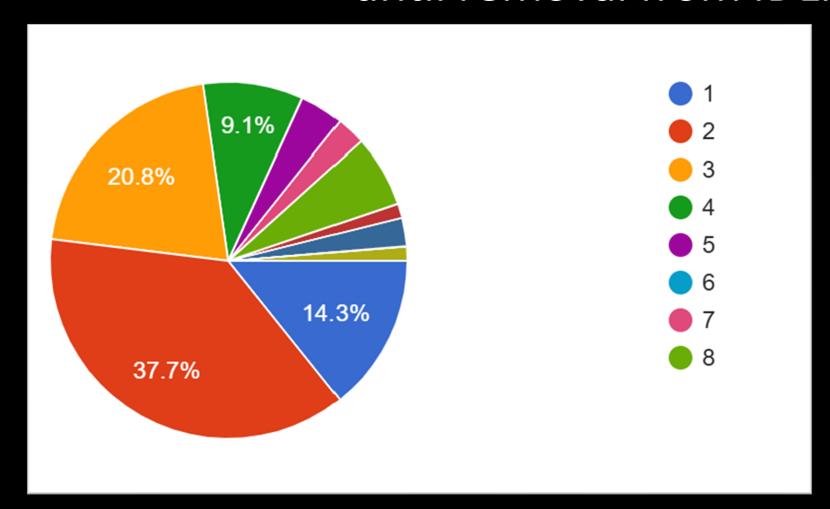


Did the initial RIT/RC complete the rescue or was a 2nd RIT/RC needed?





How many FFs were directly involved in the actual rescue/removal of the FID from time of discovery until removal from IDLH?





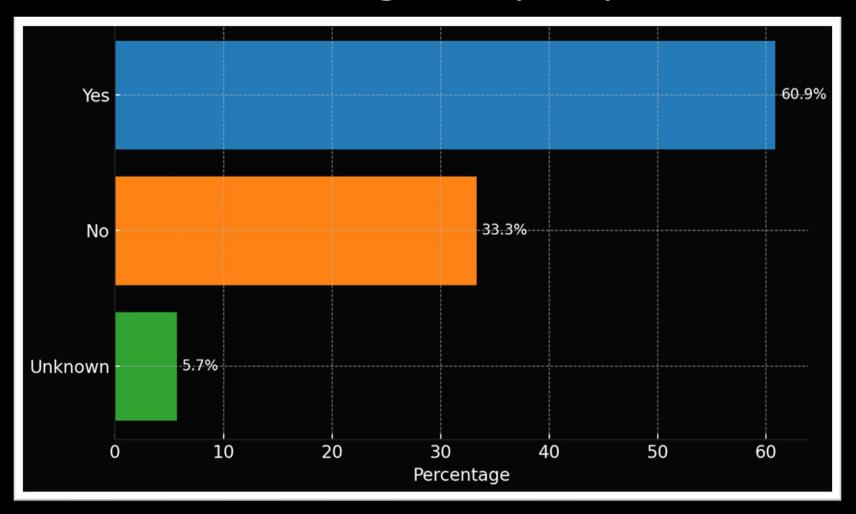
Command

- 61% report the first arriving company completed a 360.
- 94% of Maydays occurred after the formal Incident Commander was on scene/established.
- 34 respondents reported to hear, "There's zero visibility", 20 reported, "There's fire below us".
- 20 reported, "Holes in the floor or floor collapse".
- 19 reported, "There's fire above our heads."
- 80% kept fire operations on the Mayday radio channel. 72% of Incident Commanders led both the fire operations and Mayday.

- 52% of respondents reported the Incident Commander was Stationary (inside command vehicle) and 41% stated they were mobile outside of the IDLH.
- 65% reported that the Mayday was acknowledged on the first call out. Less than 5% of Incident Commanders were reported to use a headset.
- 55% report a Personnel Accountability Report (PAR) being completed and 47% report an additional alarm being requested after receipt of the Mayday.

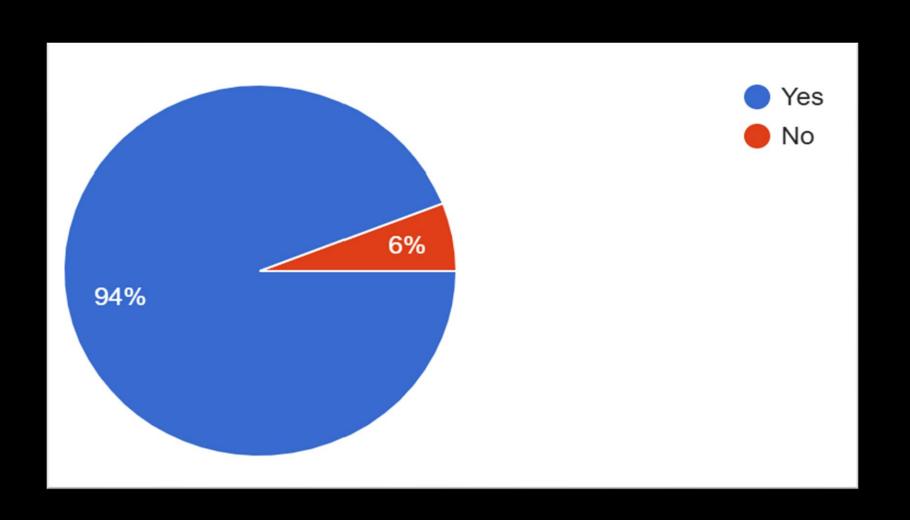
- 42% reported the Incident Commander had advanced/specialized training in managing RIT operations.
- 60% of respondents shared that they do not have annual scenariobased training including Mayday incidents
- 29% of Incident Commanders reported having an aide.
- 37% of respondents stated the FID is who declared the Mayday.
- 26% reported that the FID crew called the Mayday.
- 60% of the time the Incident Commander or Chief Officer acknowledged the Mayday. 20% of the time Dispatch acknowledged the Mayday.

Was a 360 completed by the first arriving company?



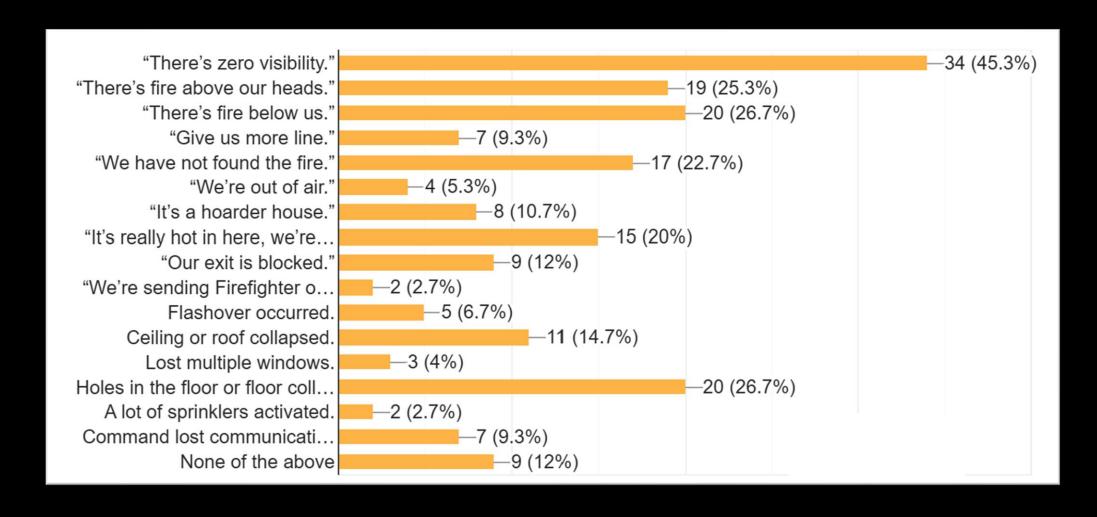


Was a formal Incident Commander on scene/established prior to the Mayday event?



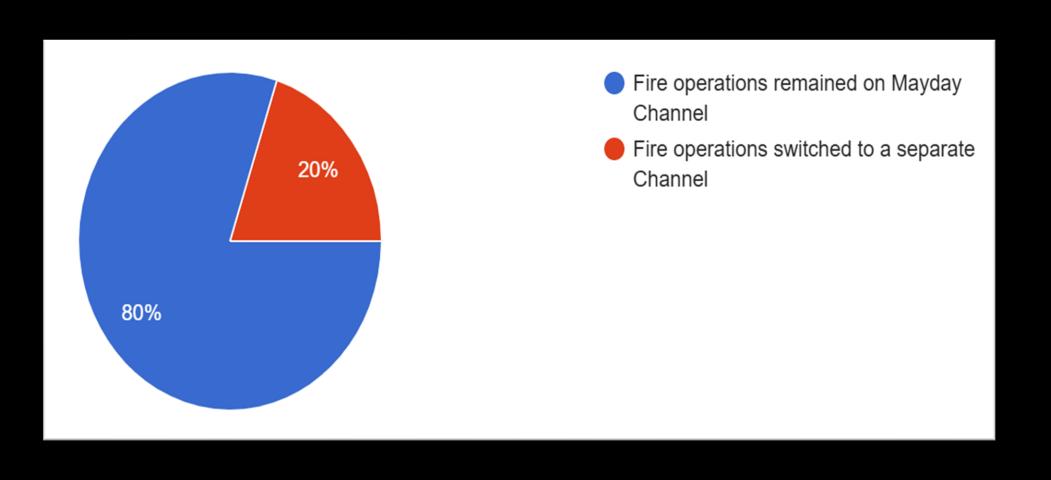


Did the incident have any of these 16 common phrases/red flags?



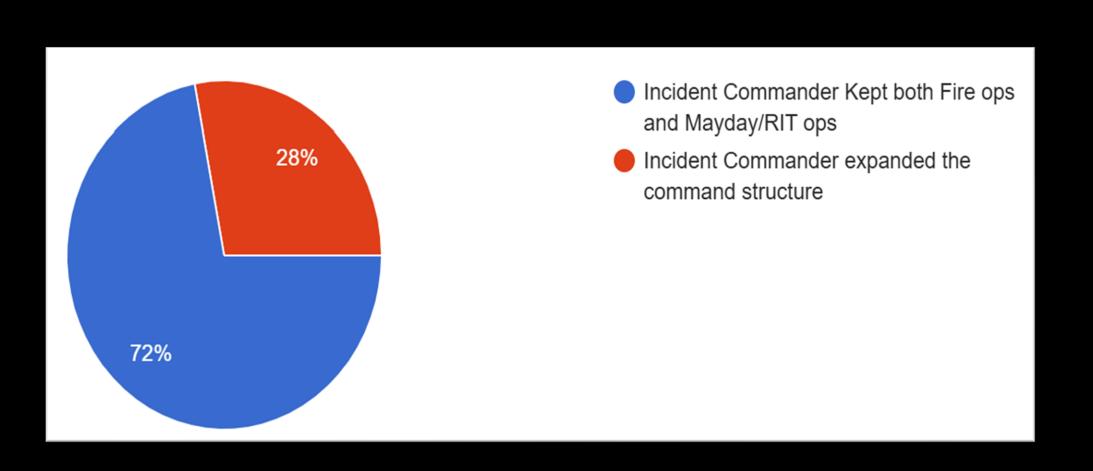


Did fire operations remain on the mayday channel or switch to another channel?



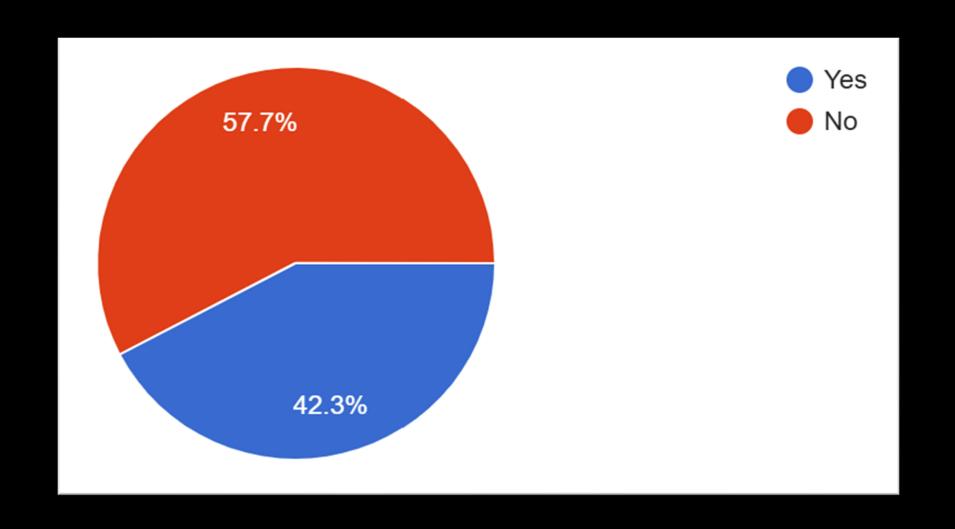


Did Command keep Fire Ops and Mayday/RIT ops or expand command structure?



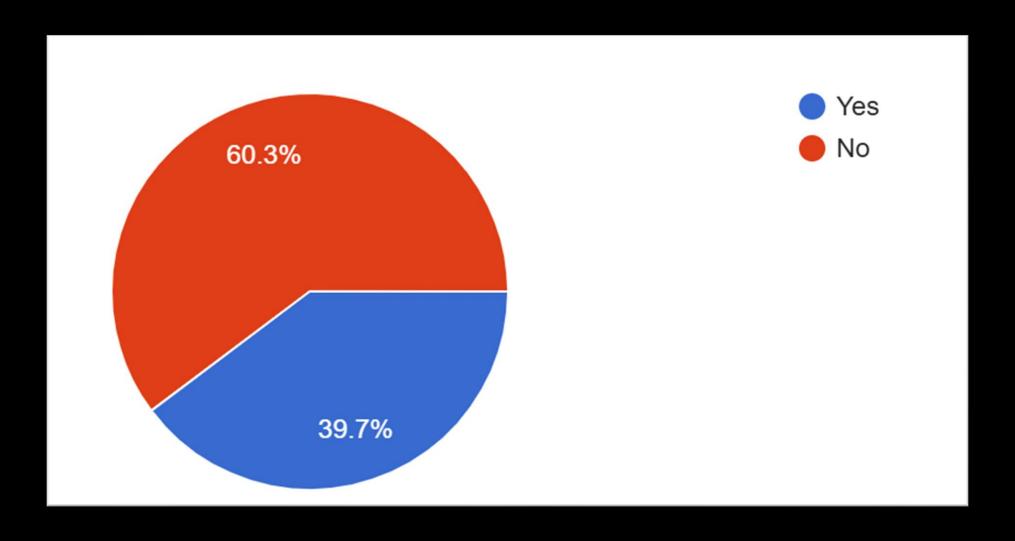


Did incident commanders have advanced/specialized training in managing RIT ops?



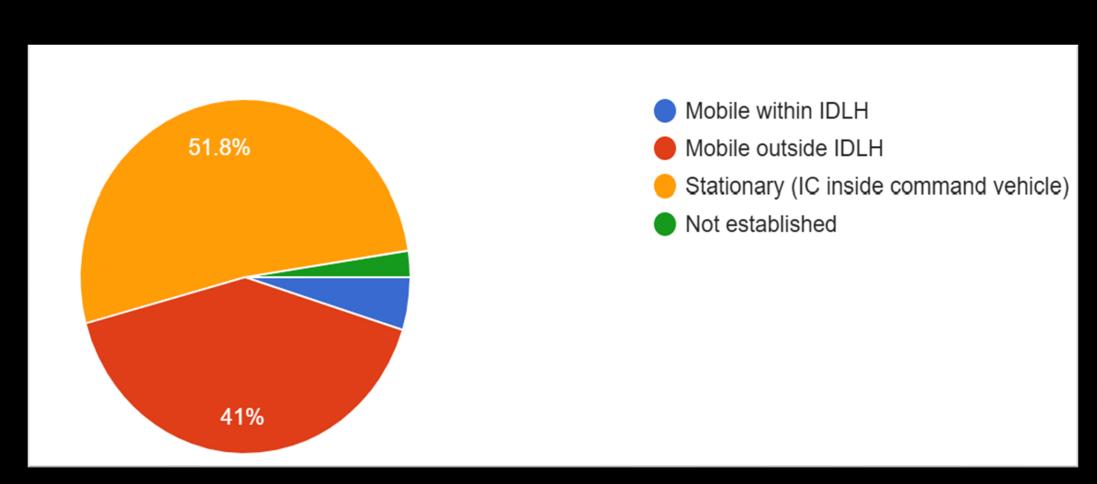


Are ICs trained annually to complete scenariobased training, including a mayday incident?



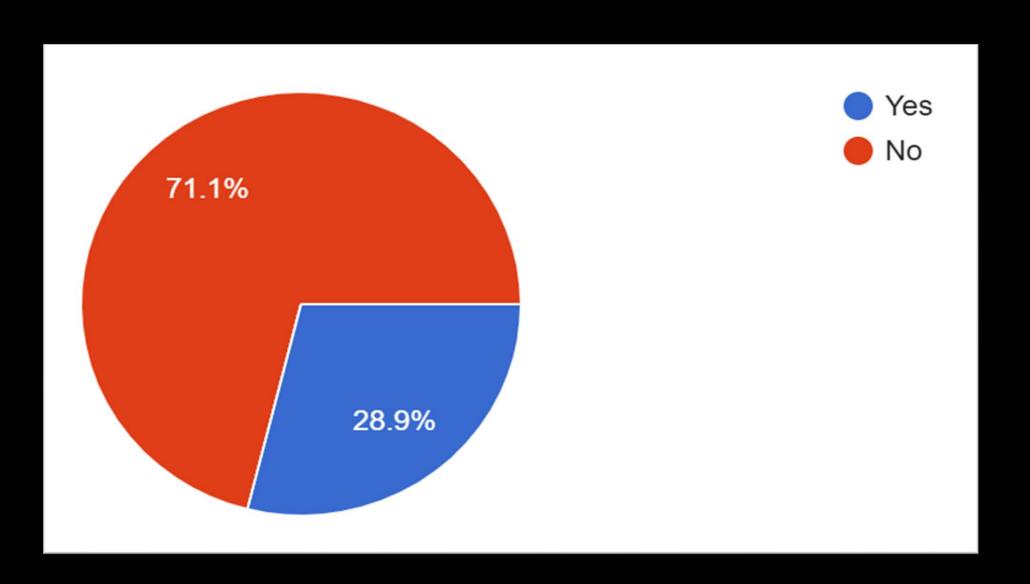


Command was _____ when mayday/emergency message was declared



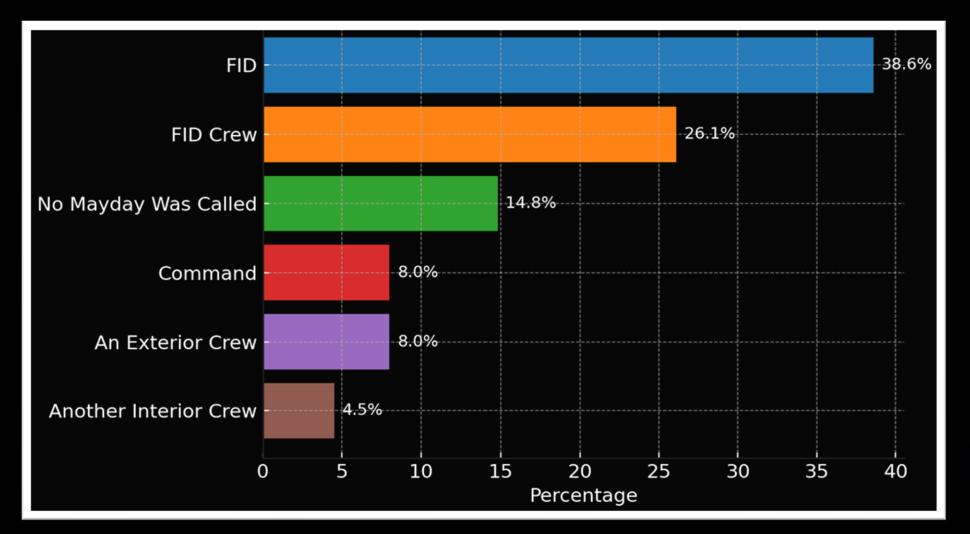


Did IC have an aide?



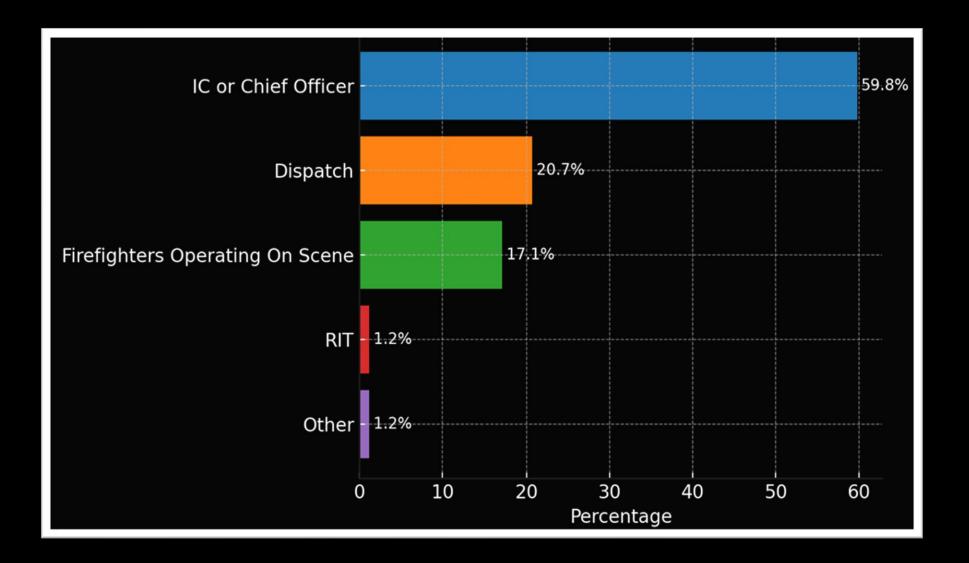


Who called the Mayday/emergency message?



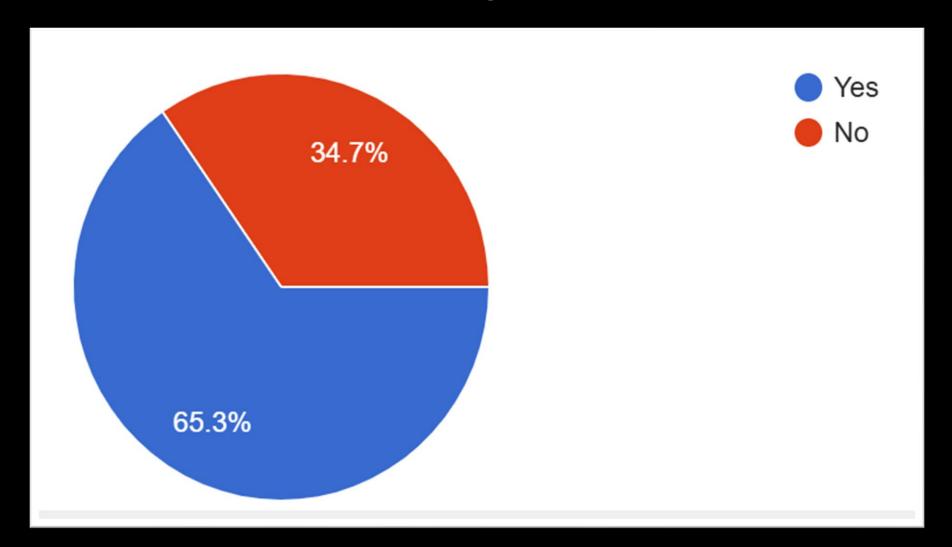


Who first acknowledged the Mayday?



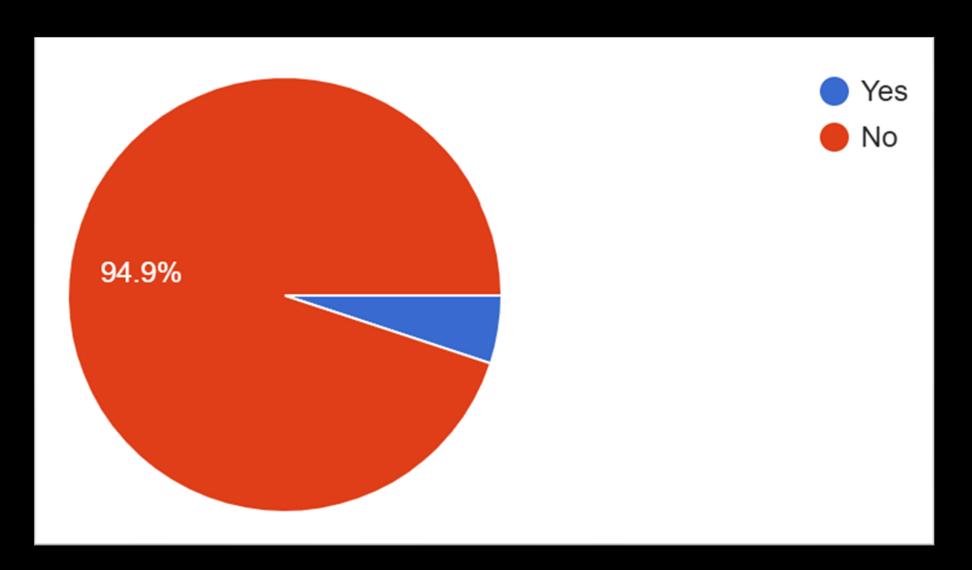


Was the mayday/emergency message acknowledged on the 1st call out?



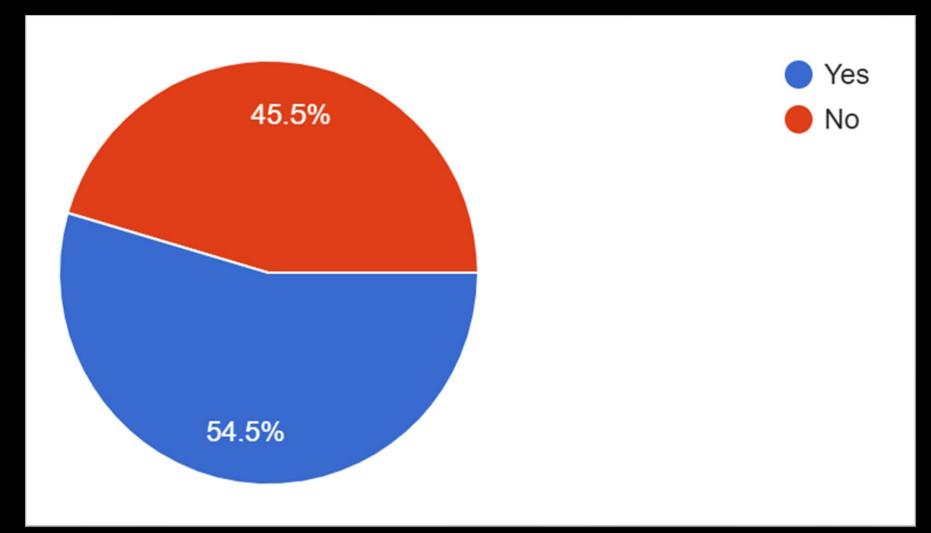


Was the IC utilizing a headsets?



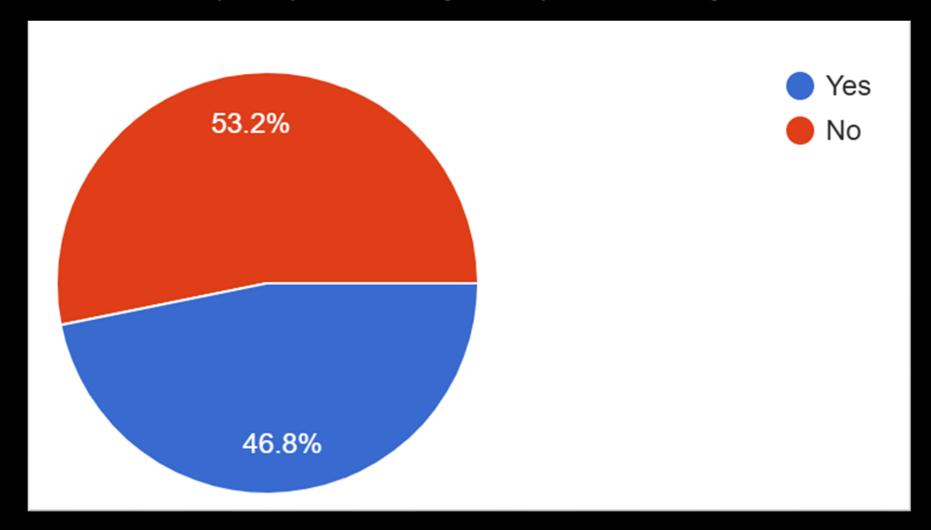


Was a PAR (personnel accountability report) run after receipt of mayday/emergency message?





Was an additional alarm requested once mayday/emergency message was received?

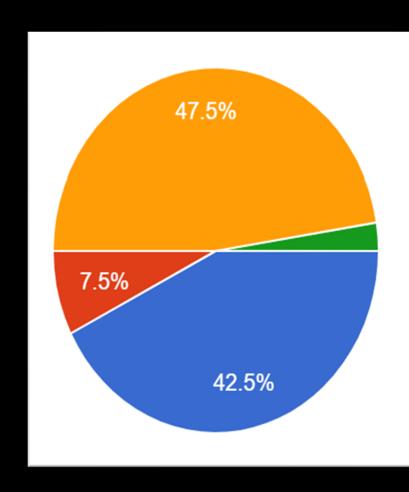




Post Mayday

- 48% report the FID was evaluated and treated on scene and transported to a medical facility.
- 50% returned to full-duty.
- 16% of respondents stated their Medical Director helps guide Mayday Rescue protocols.

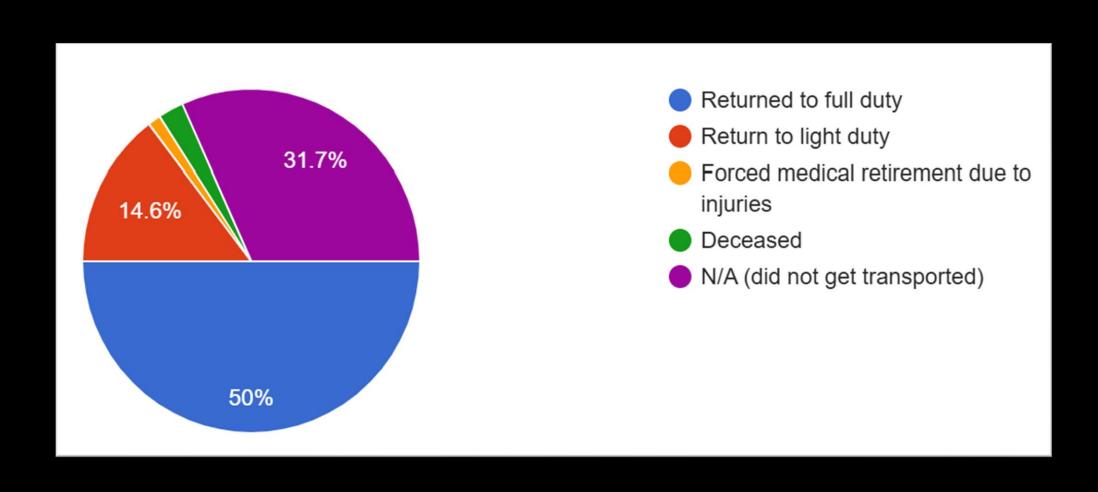
What was the medical outcome of the FID(s)?



- Evaluated/treated on scene and return to full duty
- Evaluated/treated on scene and sent home
- Evaluated/treated on scene and transported to medical facility
- Deceased on scene

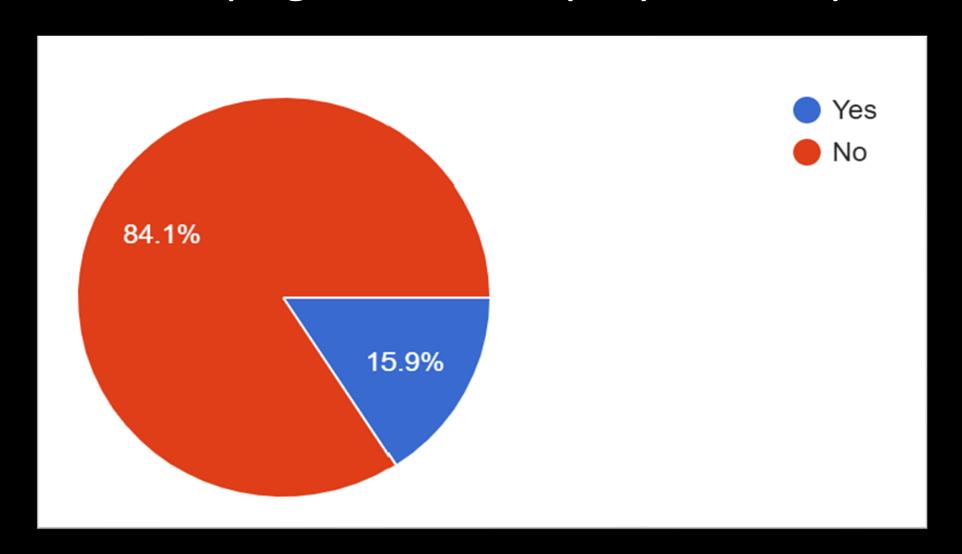


What was the medical outcome of the transported FID(s)?





Does your agency have a medical director who helps guide the Mayday Rescue protocols?

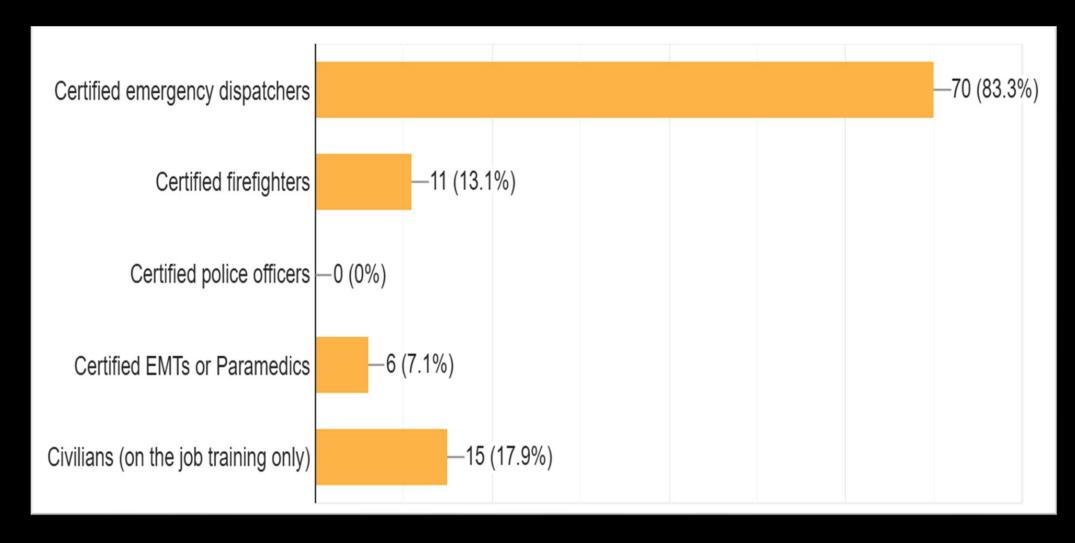




Dispatcher

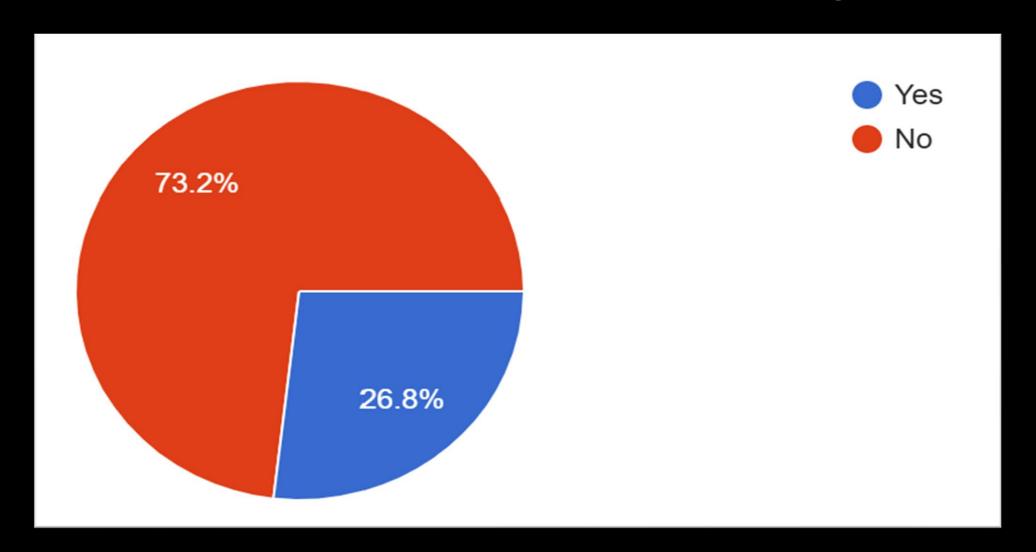
- 70 dispatchers were noted to be certified emergency dispatchers.
- 15 were civilians and received training on the job only.
- 27% of dispatchers are included in scenario-based training and 48% of dispatchers are engaged in fire rescue agency Mayday policies.

Are your dispatchers?



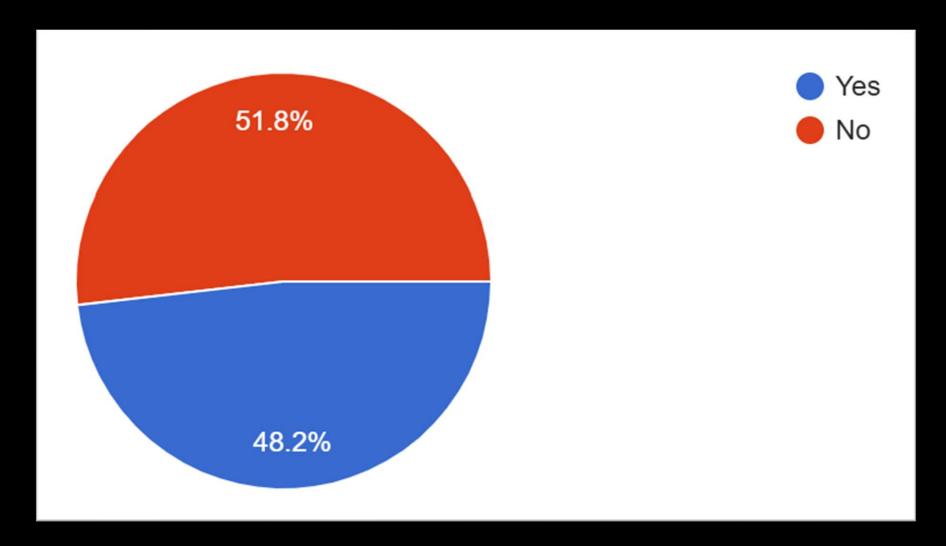


Does your agency include dispatchers in any scenario-based training?





Are your dispatchers engaged in your agency's mayday policies?





Times/Benchmarks

- 82% of the time FID was located within three minutes of the mayday call
- 81% of the time FID was extracted within three minutes of being located
- 61% of the time FID was extracted within three minutes of the mayday call
- 36% of the time the mayday was called at 19+ minutes from the first unit on scene
- 40% of the time water was on the fire within three minutes of the first unit scene arrival

