

# SAFETY ADVISORY

## *The Importance of Understanding and Training on the Portable Radio Emergency Alert Button (EAB) during a Mayday.*

### RECOMMENDATIONS

The National Institute for Occupational Safety and Health (NIOSH) Fire Fighter Fatality Investigation and Prevention Program (FFFIPP) recommends fire departments and municipalities ensure all firefighters and dispatchers:

- ❑ Understand what the EAB is and how it functions when activated
- ❑ Know the specific EAB functions present on their portable radio and their communication system capabilities
- ❑ Know that the EAB prioritizes transmissions for the portable radio when activated
- ❑ Are proficient in Mayday standard operating procedures, guidelines, and training that involve the EAB function



EAB (orange buttons) on a radio and remote speaker microphone. Photo by Chief Barakey, Suffolk VA Fire & Rescue.

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### FFFIPP INVESTIGATION

On August 11, 2021, a captain responded to a fire in a large residential structure in Maryland. While extinguishing the fire, he fell through the first floor into the basement. The captain initially survived and transmitted numerous times on his portable radio. A review of radio rejection logs from the captain's portable radio indicated his transmissions were rejected 17 times by other transmissions on the fire ground. He did not activate his EAB button on his portable radio prior to calling his Mayday, nor was he prompted to do so by command or dispatch. Crews worked to rescue the captain from the first floor and basement level. The rapid intervention team located and removed the captain from the basement; however, he had exhausted his breathing air and was unconscious. The captain was in cardiac arrest when he was removed and received advanced life support measures at the scene. He was flown to a hospital trauma center where he was pronounced dead.

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### **QUESTIONS & ANSWERS**

#### **What are your communications center system features and portable radio EAB capabilities?**

Ensure that when your EAB is activated, your radio's ability to transmit over others is prioritized in the radio system and the user will receive highest transmitting priority over other users. Training with your communications division will also help firefighters understand their specific communications system features and portable radio EAB capabilities. Radios operating on a trunked radio system will receive priority access when the EAB is activated as a system design feature. Radios operating on a conventional or simplex channel may only receive priority access if the other users on the channel recognize the EAB activation and maintain strict radio discipline.

#### **How is the EAB activated?**

The EAB is activated by pressing either button for at least 1 second but no more than 3 seconds. Once activated, information is transmitted in priority mode until the EAB is reset.

#### **What can fire departments do to ensure firefighters understand the proper use of the EAB and how it interacts with the communications center?**

Fire departments should conduct routine training in full personal protective equipment, so all users are proficient with their radios and Mayday procedures. Departments should partner with their communications center when conducting training to understand each other's role during a Mayday.

#### **Can a portable radio's EAB be activated remotely in the event a firefighter cannot activate their EAB?**

Some communication centers may be able to remotely activate an EAB from the dispatch console or from a command center/post in the event a firefighter cannot reach or activate their EAB. Firefighters and communication centers should understand this capability and use it as needed.

#### **Did you know that your portable radio may have additional features?**

Certain radios can be remotely "pinged" to emit a sound that may provide a general location of a trapped firefighter. Some EAB options include a hot mic feature that provides open mic for a pre-programmed amount of time and a trapped firefighter could speak without using their hands. Certain radios may also be able to emit an audible sound (similar to PASS device) to assist in locating a trapped or lost firefighter.

#### **Where can fire departments find information on the features of portable radios and communications center systems?**

The manufacturer's instruction manual provides information on the specific capabilities of the system. NFPA 1802, 2021 edition, includes information on portable radios. NFPA 1225, *Standard for Emergency Services Communications*, 2022 edition, includes information on radio system features.

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