Questions & Answers about MSA's new Accountability System

Why did MSA choose the 900 MHz, license-free radio frequency to transmit information between the base station and the FireHawk® M7 Air Mask with telemetry?
MSA chose 900 MHz for several reasons. First, it's license-free, therefore a higher power signal can be used without a license. The second reason is because 900 MHz has a good combination of reflective and penetrative RF characteristics for optimal range performance in building structures. Lower frequencies penetrate well over short distances, but don't reflect or travel well through small openings which might be needed for longer distances indoors. Higher frequencies above 900 MHz don't penetrate building materials as well; however, they propagate better through small openings. The 900 MHz band has a good combination of reflection and penetration for this application.

How many firefighters can the system monitor at the same time?
The MSA Accountability System is capable of monitoring 50 firefighters per base station. It is possible to connect multiple base stations to a single laptop.

MSA Accountability System Base Station

What components are necessary to make the MSA Accountability System functional?
The system requires the following components: the FireHawk M7 Air Mask equipped with telemetry module, ID Tags (for firefighter or team identification), a Reader/ID Tag Writer, a Base Station Kit, and a laptop computer (not supplied by MSA).

How is the firefighter's name assigned to the FireHawk® M7 with telemetry?
Each firefighter is given an ID Tag programmed with their name. At the beginning of each shift during SCBA inspection, the firefighter presses the mode button of the M7 control module, then scans the ID Tag along the bottom. The information is electronically transferred. The M7 ID tags can only be used with the Firehawk M7 Air Mask equipped with telemetry and Firehawk Reader/ID Tag Writer. The ICM TxR tags can only be used with ICM TxR and its Reader/Writer.

ID Tag and Reader

What if a firefighter forgets to "tag in"?
The M7 control module will store a firefighter's name in its memory for 24 hours. After that time elapses, the unit will resort to the serial number. If a firefighter forgets to "tag in", the serial number will be seen by incident command, so the firefighter will still be accounted for.

Will the system work if our department does not want to issue ID Tags to each firefighter?
Yes. MSA designed our system to be customized to your needs. You can permanently name the M7 control module by apparatus number and seat position (such as Engine 9, Seat 2). This will automatically create a team on the base station software (Engine 9) and place that firefighter in the second position.

M7 Control Module

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How will incident command know when critical events occur on the fireground?

When critical events occur, such as the sounding of PASS or low-pressure alarms, it is important to keep IC informed. The base station automatically recognizes these events and that critical information is announced on the laptop screen via "pop-up" windows. The type of event and name of the firefighter are included in the message. Knowing that IC has many responsibilities and may not be constantly watching the computer screen, audible alarms also alert IC of critical events. When a PASS Alarm occurs, the laptop computer will alarm, using the same tones as the Integrated PASS device. When a low-pressure alarm activates, the laptop will sound the distinctive Audi-Larm® ring. Other events, such as thermal alarms, low battery conditions, and radio contact, can also be set up to inform IC on the laptop screen.

MSA Accountability Screen

How will IC and the firefighter know if the radio contact is out of range?

IC is alerted that a firefighter is out of range from the base station when an "X" appears over the radio signal icon. The firefighter will be alerted by the blinking radio icon on the M7 control module.

What information is displayed for IC?

IC can see vital statistics for each firefighter on air at the fireground such as air pressure, time remaining, radio contact, and evacuation acknowledgement. Also visible are team assignments and the tasks assigned to each team. The software also has an integrated PAR (personnel accountability report) timer. It can be set for any interval of time the department uses to conduct PAR.

Firefighter Statistics Display

How does the MSA Accountability System aid in firefighter evacuations?

Incident Command can evacuate a single firefighter, a team of firefighters, or all firefighters on the scene with a single click of a button. When IC presses the Evacuate button, the button turns red, confirming the message has been sent. When the firefighter receives the message, the Evacuation button turns yellow. IC knows the firefighter has received the message. The firefighter recognizes the evacuation message by double-clicking the side button of the M7 control module. This sends a message back to IC that the evacuation signal has been acknowledged. The Evacuation button is now green.

Evacuation Sequence

What happens if there is a fire that requires mutual aid? Will the system keep track of only firefighters in my department?

No. If the mutual aid department also uses an MSA Accountability System, either ICM TxR or Firehawk M7 Air Mask with telemetry, their units will appear on the laptop. If the mutual aid department is not an MSA Accountability System user, IC can manually add those firefighters to the system to keep track of all firefighters on the scene.

Can the MSA Accountability System generate incident reports?

Yes. The software captures all of the information from each incident. The downloaded information can then be viewed in various reports when needed.

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