

SEARCH & RESCUE [UAE]

SAR DISASTER TRAINING SITE



OBJECTIVE

On the Search & Rescue disaster management training site, there is a collapsed building, and within this structure there is a concrete crawl tunnel, 1.2 metre square.

The challenge was to transmit audio from the tunnel, with the trapdoor closed. All previous attempts by other communications and IP Mesh vendors had failed.

EQUIPMENT USED

PTT 500mW radios, some of which were operating at only 250mW.

TUNNEL UNDER BUILDING WITHIN SEARCH & RESCUE DISASTER MANAGEMENT TRAINING SITE

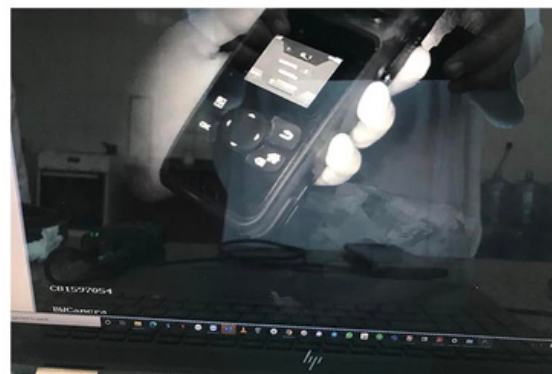
WITHIN CONCRETE CRAWL TUNNEL

On the Search & Rescue disaster management training site, there is a collapsed building, and within this structure there is a concrete crawl tunnel, 1.2 metre square. The challenge was to transmit audio from the tunnel, with the trapdoor closed. All previous attempts by other communications and IP Mesh vendors had failed.

Not only did we succeed in transmitting audio over the PTT Mesh radios but we also delivered video, to the surprise, and delight, of the end user.

None of the radios used in this exercise exceeded 500mW RF power, and some of them were operating at only 250mW. This is testament to the superior digital signal processing of the Ace6 technology.

We also proved the superior RF performance in closed 40' shipping containers, and within metal elevators, from the 10th floor to ground, with no interruption in PTT Audio and video transmission. The user kept pushing us to perform in conditions where they had previously been unsuccessful with all previous communication systems.... and we performed!!



Live video screenshot from inside the sealed tunnel, using:
2.5MHz bandwidth, 4.9GHz frequency, 500mW RF output, antenna gain 1dBi

CONCLUSION

"We tested a number of Mesh technologies in Abu Dhabi, in very challenging RF environments, including in deep basements and in collapsed structure training simulations and the only Mesh radios to completely satisfy our demands was the Sovereign Systems mMesh radios.

We streamed live video, audio and data across the Mesh network and we were very pleased with the performance from such a small, easy to deploy Mesh radio."

~ **Major Rashid Al Shaya**, Command Support Officer, United Arab Emirates Search & Rescue Team (UAE USAR), Heavy Classification from the United Nations - International Search & Rescue Advisory Group (INSARAG) unit



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