

Headquarters U.S. Air Force

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Fire Emergency Services



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HQ AFCESA/CEXF
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History – Joint Firefighter Integrated Response Ensemble

- Late 1970s... The Soviet Threat and Chemical/Biological Weapons
 - Chemical Protective Overgarment
 - Air Purifying Respirator
 - Exterior Firefighting only; no IDLH Entry
- Effort began to obtain new ensemble, 2 decades later we fielded the JFIRE
 - Joint Service Lightweight Suit Technology (JSLIST)
 - Proximity Firefighting Gear
 - Interspiro 9030 Self Contained Breathing Apparatus (SCBA)
- With JFIRE Survival and Mission Accomplishment Possible



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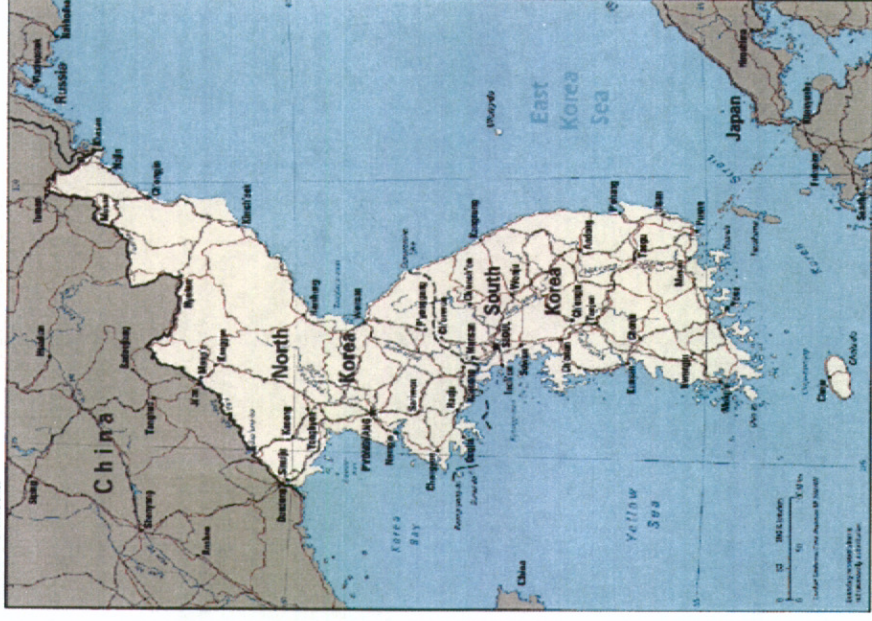


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Combination SCBA Concepts of Operations

- **Korean Peninsula**
- **North Korean Chemical/Biological Attack**
 - **Intel, increase protective posture**
 - **Attack, take cover and survive w/APR**
- **Now accomplish mission, generate aircraft sorties**
- **Cargo incident with fire and incapacitated aircrew**
 - **Knock down fire with turrets**
 - **Don bunker gear and SCBA – make air connection w/o exposing firefighter to contaminants**
 - **Effect rescue, transition back to APR**

Korean Peninsula

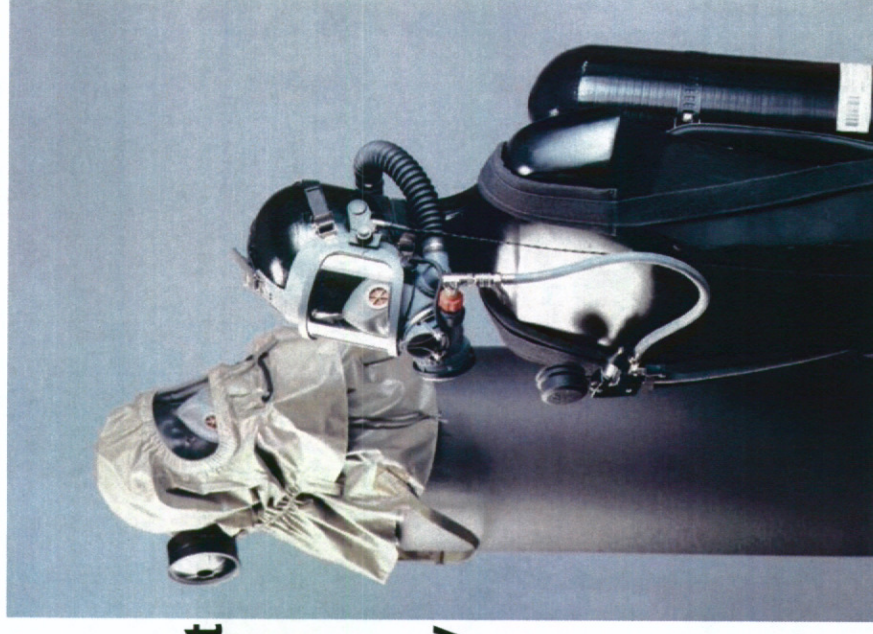




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Interspiro 9030 Self Contained Breathing Apparatus

- Interspiro SCBA 9030 NIOSH/NFPA Compliant
 - 9030 not compliant when converted to combination respirator
 - No test standard existed to certify unit
- Early 90s, fire department special ops teams want the capability
 - Not available; military unique use only
 - USAF Fire Emergency Services too



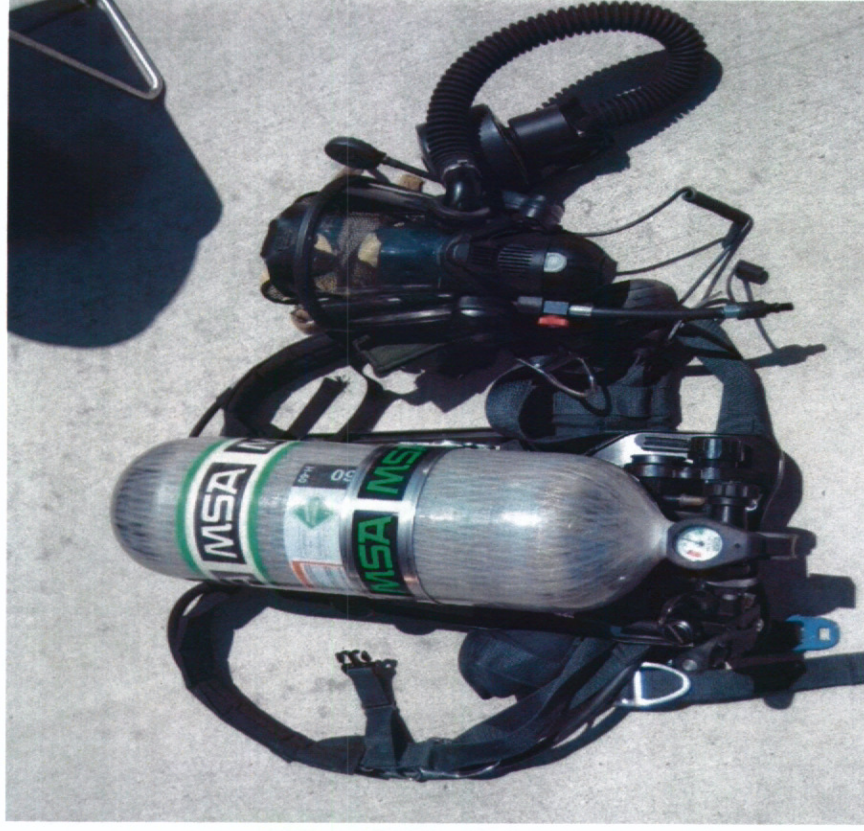
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MSA M7 FireHawk Responder SCBA

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- **USAF MSA FireHawk Responder fielded beginning 2007 ...The Responder is a SCBA, APR and PAPR**
- **Transition between modes w/o exposing user to contaminants**
- **NIOSH/NFPA compliant as SCBA/APR/PAPR for standalone use only**
- **Transitioning between modes in contaminated environments remains “military unique”**
- **Sill no test standard to certify combination respirators for this use**



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Combination SCBA Response Scenarios

- **The warzone is here in the Homeland**
 - **Toxic Industrial Chemicals/Materials**
 - **Chemical/Biological Weapons**
- **Capability needed extending beyond SCBA cylinder capacity**
 - **HAZMAT, WMD, structural collapse, investigations**
- **Bad guy attack on AF installation**
 - **Crop duster using C/B**
 - **HAZMAT equipment overwhelmed**
- **Door to door with SCBA not feasible/efficient – combination respirator makes possible**



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Weapons of Mass Destruction Investigation in Tbilisi

- The warzone is here in the USA
- WMD investigation in Tbilisi
- Investigators in APR with a deteriorating situation
- Knowledgeable investigators see the need to back out and hold breath
- Ok but the ability to breath supplied air is much preferred



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Combination Respirator and the Bottom Line

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- Applications:
 - HAZMAT/WMD
 - Tunnel Rescue
 - Going into the hot zone
 - Coming out of the hot zone
 - HAZMAT & Special Ops teams will further develop
- Combination Respirators are available; MSA, Interspiro and Avon
- A combination respirator standard is needed
 - Certify system
 - Provide the best safety and efficiency's for responders



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Questions



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