AVOX Systems 358 Series Quick Don Mask Updates

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AVOX Systems
358 Hybrid Full - Face Quick Don Oxygen Mask
Area of Concern

- Legacy 358 QDM
  - Separate oronasal mask and goggle
  - Two handed donning in excess of 5 seconds
Solution

• 358H Quick Don Mask
  • The proven legacy valve, hose, communications and harness assembly have been combined with a
  • COTS Full – Face smoke mask (MXM48)
  • Fully integrated oxygen and smoke protection system.
Features

- New 358 Hybrid Full-Face mask
- Harness adjustment strap
- 358 suspension assembly
- Full – Face mask with integrated smoke goggle
- 358 valve, hose, communications assembly
- New 358 Hybrid Full-Face mask
Advantages

- The system requires no aircraft modifications
- No special tools
- Simple maintenance
- Minimal training for aircrew and AFE technicians
- Reduced maintenance cycle
- Integrated smoke goggle
- Replaceable lens providing:
  - Improved field of view
  - Improved optics
  - Improved ballistics protection
  - Improved fogging resistance
  - Superior scratch resistance
  - Improved fit and comfort
Integration
358HK Upgrade Kit

- Legacy 358 mask
- 358HK Full-Face upgrade kit
- 358Hybrid Full-Face crew oxygen mask
Stowage and Protection

- **Lens protection**
- **Oral nasal mask protection**

A dust cover is included which protects the oral nasal mask as well as the entire smoke goggle and lens from dust, dirt and abrasion.
Testing and Qualification

DVT Testing Performed by AVOX

- Safety
- Communications
- Design and construction
- Valve performance
- Mask Oxygen Hose connection
- Reliability
- Maintainability
- Sanitation
- Flammability
- Environmental consideration
- Human Factors engineering
- Performance requirements
- Aircraft Integration
358 Hybrid Approvals

- FAA Technical Service Order (TSO) C-78
- FAA Technical Service Order (TSO) C-99
- Air Force Approved Engineering Change Proposal (ECP)
# Logistics

<table>
<thead>
<tr>
<th>Legacy 358 Mask P/ N</th>
<th>New 358H P/N</th>
</tr>
</thead>
<tbody>
<tr>
<td>358-1506V-1</td>
<td>358-1506V-4</td>
</tr>
<tr>
<td>358-1506V-2</td>
<td>358-1506V-5</td>
</tr>
<tr>
<td>Upgrade kit for 358-1506V-1</td>
<td>358-1554-1</td>
</tr>
<tr>
<td>Upgrade kit for 358-1506V-2</td>
<td>358-1554-2</td>
</tr>
</tbody>
</table>
Status

- AVOX has provided test assets
- USAF OUE testing starting in Sept 2011
- USN testing in process on C-9B
- Specific program status must go thru Robins AFB
In Summary

• Single hand donning in less than 5 seconds
• Integrated mask and goggle addresses potential safety issue
• Upgrade kit will allow for lower cost “in field” upgrades
• Integrated goggle and mask results in simpler logistics
• Increased field of view and comfort
What’s Next??
358 Quick Don Mask with Inflatable Harness
Design - Facepiece

- Mask and Harness Assembly
  - MXM48 full face mask
  - Inflatable harness, MXH 30
    - Inflates with a replaceable CO2 cartridge
  - Current production full face mask and harness
  - Maintains single hand don capability
  - MXM48 full face mask - FAA-TSO approved, current used on the 358H aircrew mask
Design – Valve, Comms and Hose

• Valve, Comms and Hose Assembly
  – 211 Series Valve Assembly
  – Microphone
    • M-101/AIC Dynamic Microphone
    • DC Electret
  – Silicone Breathing Hose with QD connector
  – Current 358 & 358H Series Production Valve, Comms and Hose Assembly
  – Mil spec compliant components
Design – Mask Assembly

- Harness Pressure Assembly interfaces with the MXM48 full face mask
- Valve, Comms and Hose Assembly interfaces with the Harness Pressure Assembly
Schedule

- DVT testing – Sept 2011
- 1st Article Conformance – Dec 2011
- FAA TSO Certification Testing – March 2012
- Production Units – April 2012
Contact for Literature and Quotations

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