Northern Virginia Emergency Response System
&
MWAA ARFF Response Manual

Battalion Fire Chief Jason Graber
MWAA Fire & Rescue Department
Safety & Training Division
January 2014
A Plan

Everyone has a plan until they get punched in the face.

-Mike Tyson
NOVA Mission Statement

“Delivering responsive and caring service regardless of jurisdictional boundary”
What is NOVA?

• “The Original 4”
  – Fire Departments of Northern Virginia originally comprised of Fairfax County, Fairfax City, Arlington County and the City of Alexandria

• The need for a plan began in the early 1980’s
  – High profile incidents

• Now expanded to include fourteen “signatory” departments
What is NOVA?
Committees/Training

• Many committees exist with member representation from jurisdiction:
  – Fire Chief’s Committee
  – Senior Ops Chief’s Committee
  – Operations Board
  – Technical Writing Group/SME Committees
  – Training Committee
  – Communication Committee
  – EMS Committee

• Member involvement to each committee
Working Together

• How well do we work with our neighbors?
Working Together

- When your mutual aid partners arrive, what will their first actions be?
- “Box Assignments” – What’s coming to you when you need help?
- Do those coming to you know what they are supposed to do when they arrive?
- How do they know?
• NOVA Manuals expand the principles of pre-planning into true playbooks
• The manuals are not intended to cover all of the issues within every jurisdiction
  – General guidelines outlining initial actions and resources
  – Allows unit officers to anticipate what their initial assignments will be
Working Together

- Interoperability & numbering
- Information sharing:
  - Bi-annual command officer training
  - Informational bulletins/directives
NUMBER: DRAFT
DATE: December 10th, 2008
SUBJECT: Changes in access gates at Dulles Airport
APPROVED: (Signature on File)

EFFECTIVE DATE: Immediately

The following changes have been made to access gates at Dulles Airport. The changes may impact mutual aid responses to those jurisdictions requesting assistance from the airport and mutual aid units responding to the airport.

The following are the Emergency Access Staging Points for Washington Dulles International Airport:

**Airside Responses:**

- Northside Responses (69-11 through 69-16 Boxes): Cargo Drive at Propeller Court (Gate 130) — ADC Map 5401 H7/H8
- Southside Responses (69-18 through 69-27 Boxes): Air and Space Parkway at Flight Line Road (Gates 317 & 317A) — ADC Map 5521 J2
- Westside Responses (67 series boxes and west runway incidents): Weather Service Road (NOAA Station) at Gate 209 — ADC Map 5401-B6

Street side responses (64 Series Boxes) will remain the same — apparatus will proceed directly to the incident scene unless directed by the MWAA PSCC or incident commander to stage at a standby position.

The MWAA PSCC will continue to give the appropriate staging area for incoming units for responses to Washington Dulles International Airport.

If there are any questions please feel free to contact Deputy Chief Tim Lasher @ 703-572-2973 or Timothy.Lasher@mwaa.com

Delivering responsive and caring service regardless of jurisdictional boundary.

www.novaregion.org/fire
Incident Command Boards

- Consolidated Command
- RIT Operations
- Rural Water Supply
- Initial Command
- Resource Status
- Situation/Status
- Incident Sketch
- Air Management
The Manuals

- Currently, twenty-two different manuals exist for incident operations.

<table>
<thead>
<tr>
<th>Manual Name</th>
<th>Unit Position and Assignment Summaries</th>
<th>Publication Date</th>
<th>Training Materials</th>
</tr>
</thead>
<tbody>
<tr>
<td>Command Officer Operations</td>
<td></td>
<td>Revised January 2013</td>
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<tr>
<td>Elevators and Escalators Emergencies Manual</td>
<td></td>
<td>June 2008</td>
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<tr>
<td>Emergency Incident Rehabilitation 2nd Ed.</td>
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<td>October 2012</td>
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<td>Engine Company Operations</td>
<td></td>
<td>November 2003</td>
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<tr>
<td>Flammable Liquid Emergency Incidents</td>
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<td>August 2007</td>
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<tr>
<td>Garden Apartments</td>
<td></td>
<td>Revised January 2013</td>
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<tr>
<td>High Rise Buildings</td>
<td></td>
<td>Revised June 2013</td>
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<tr>
<td>Inland Water Rescue and Emergencies Manual</td>
<td></td>
<td>March 2010</td>
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<td>Metrorail Emergencies</td>
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<td>November 2012</td>
<td></td>
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<tr>
<td>Mid-Rise Building Fires</td>
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<td>September 2007</td>
<td></td>
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<tr>
<td>Multiple Casualty Incident Manual</td>
<td></td>
<td>90 Day Review First Edition</td>
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<tr>
<td>MWAA AeroTrain Response Manual [AeroTrain Map]</td>
<td></td>
<td>February 2013</td>
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<tr>
<td>Rapid Intervention Team</td>
<td></td>
<td>Revised May 2013</td>
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<tr>
<td>Residential and Commercial Townhouses and Rowhouses</td>
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<td>Revised: June 2013</td>
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<tr>
<td>Roadway Incidents</td>
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<td>November 2012</td>
<td></td>
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<tr>
<td>Single Family Dwellings</td>
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<td>Revised: June 2013</td>
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<tr>
<td>Strip Shopping Centers</td>
<td></td>
<td>Revised January 2013</td>
<td></td>
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<tr>
<td>Utility Emergencies</td>
<td></td>
<td>February 2008</td>
<td></td>
</tr>
<tr>
<td>Weapons of Mass Destruction</td>
<td></td>
<td>August 2007</td>
<td></td>
</tr>
</tbody>
</table>

Updated 03/22/2013
The Manuals

- Manual Creation/ Tracking Sheet
  - Technical Writing Group or SME Groups
- Manual Review Process
  - Three year cycle
- Approval Process
- Implementation
The Manuals

- Manuals of Airport Significance/ARFF incident related:
  - Command Officer Operations
  - Flammable Liquids Response Manual
  - Multiple Casualty Incident Response Manual
  - Utility Emergencies Manual
- Fire Departments of Northern Virginia Website
- Training Packages
The Manuals

- All of the manuals can have an impact
  - Single Family Dwelling
  - Strip Shopping Centers
  - Highway Operations
  - Garden Apartments
  - Highrise/Midrise Operations
  - METRO/Heavy Rail
  - Rural Water Supply
If you run calls with surrounding jurisdictions, do you know what your initial actions should be? Where do you fall within a run order and which unit gets assigned to what task?
<table>
<thead>
<tr>
<th>UNIT</th>
<th>SINGLE FAMILY</th>
<th>TOWNHOUSE</th>
<th>STRIP SHOPPING/COMMERCIAL</th>
<th>APARTMENT</th>
<th>HIGH RISE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st Engine</td>
<td>Side A, provide for water supply, initial attack line, command decision, RECON lap of Side C and announce findings</td>
<td>Side A, provide for water supply, initial attack line, command decision, RECON lap of Side C and announce findings</td>
<td>Side A, provide for water supply, initial attack line, command decision, RECON lap of Side C (if possible) and announce findings</td>
<td>Abandon apparatus, entire crew inside, check FACP, recall elevators, identify fire floor, identify attack stairwell</td>
<td></td>
</tr>
<tr>
<td>2nd Engine</td>
<td>Water supply for first engine, backup line/line above</td>
<td>Water supply for first engine, backup line/line above</td>
<td>Water supply for first engine, backup line/line above, FDC if on Side A</td>
<td>Supply FDC, check FACP for changes, assist with placing first engine's hoseline in service, plan for second hoseline</td>
<td></td>
</tr>
<tr>
<td>3rd Engine</td>
<td>Position for second water supply, check Side C, line above or exposure line, check for extension</td>
<td>Position for second water supply and Side C coverage, check Side C, line above or exposure line, check for extension</td>
<td>Position on Side C, provide for water supply, hoseline operation and support rescue and truck, FDC if on Side C</td>
<td>Water supply to secondary FDC if present, floor above fire with second truck</td>
<td></td>
</tr>
<tr>
<td>4th Engine</td>
<td>RIT, driver to supply third engine</td>
<td>RIT, driver to supply third engine</td>
<td>RIT, driver to supply third engine</td>
<td>RIT, attack stairwell (one floor below fire floor)</td>
<td></td>
</tr>
<tr>
<td>5th Engine</td>
<td></td>
<td></td>
<td></td>
<td>Report to Command Post, assume Lobby control</td>
<td></td>
</tr>
<tr>
<td>1st Truck/Tower</td>
<td>Side A, force entry, search, ventilation, ladders. Utilities if after rescue</td>
<td>Side A, force entry, search, ventilation, ladders. Utilities if after rescue</td>
<td>Side A, force entry, search, ventilation, ladders. Utilities if after rescue</td>
<td>Side A, driver to stay with unit if fire is in reach of aerial, crew with first engine, forcible entry, primary search</td>
<td></td>
</tr>
<tr>
<td>2nd Truck/Tower</td>
<td>Assure Side C is covered, IC's determination</td>
<td>Side C coverage, IC’s determination</td>
<td>Side C, roof access, vertical ventilation</td>
<td>Position for use at fire floor, crew to floor above with third engine</td>
<td></td>
</tr>
<tr>
<td>1st Rescue</td>
<td>Position out of way, ventilation, force entry and search, ladders. Utilities if after 1st truck/tower</td>
<td>Position out of way, ventilation, force entry and search, ladders. Utilities if after 1st truck/tower</td>
<td>Position on Side C, primarily responsible for gaining access to involved occupancy and immediate exposure, utilities</td>
<td>If arriving before first truck, assume first truck tasks – if arriving after, tagline on fire floor, forcible entry on adjacent units, identify alternative fire attack options, assist in deployment of 2½-inch hoseline</td>
<td></td>
</tr>
<tr>
<td>1st EMS</td>
<td>Position for rapid egress, treatment of initial patients</td>
<td>Position for rapid egress, treatment of initial patients</td>
<td>Position for rapid egress, treatment of initial patients</td>
<td>Position for rapid egress, treatment of initial patients</td>
<td></td>
</tr>
<tr>
<td>2nd EMS</td>
<td>Report to command</td>
<td>Report to command</td>
<td>Report to command</td>
<td>Report to command</td>
<td></td>
</tr>
<tr>
<td>1st EMS Supervisor</td>
<td>Battalion aide, other duties as assigned</td>
<td>Battalion aide, other duties as assigned</td>
<td>Battalion aide, other duties as assigned</td>
<td>Report to command post for assignment</td>
<td></td>
</tr>
<tr>
<td>2nd EMS Supervisor</td>
<td>Tactical command aide, other duties as assigned</td>
<td>Tactical command aide, other duties as assigned</td>
<td>Tactical command aide, other duties as assigned</td>
<td>Tactical command aide, other duties as assigned</td>
<td></td>
</tr>
<tr>
<td>1st Battalion Chief</td>
<td>Assume command</td>
<td>Assume command</td>
<td>Assume command</td>
<td>Assume command</td>
<td></td>
</tr>
<tr>
<td>2nd Battalion Chief</td>
<td>Tactical command, other duties as assigned</td>
<td>Tactical command, other duties as assigned</td>
<td>Tactical command, other duties as assigned</td>
<td>Tactical command, fire floor division supervisor</td>
<td></td>
</tr>
</tbody>
</table>
Airport Manuals

• Due to specific discipline hazards on the airport, additional manuals have been created:
  – AeroTrain Manual
  – River Rescue Manual
  – ARFF Manual

• SOP references to all NOVA and MWAA FRD Manuals
ARFF Manual

• November 2008 FRD policy change
  – Semi permanent assignments
  – OT/SE/Transfer between airports
• No recruit school
• The Need
  – Many different ways of conducting operations on airport ARFF related calls
  – No “ARFF Standard”
  – Merge two SOP’s into one
  – Provide a playbook for mutual aid partners
• In early 2011, initial work began to create a manual for ARFF Incidents
• Final manual and associated products finalized in spring of 2013
Manual References

- IFSTA 5th Edition Aircraft Rescue and Firefighting
- Metropolitan Washington Airports Authority Fire and Rescue Department SOP 443: Emergency Response Operations - Responses to Aircraft Emergencies
- Metropolitan Washington Airports Authority Fire and Rescue Department SOP 445: Evidence Preservation at Aircraft Incidents
- Fire and Rescue Departments of Northern Virginia Command Officer Operations Manual
- Fire and Rescue Departments of Northern Virginia Multiple Casualty Incident Manual
- Washington Dulles International Airport Emergency Plan
- Ronald Reagan Washington National Airport Emergency Plan
- Federal Aviation Administration Advisory Circular 150/5200-12C - First Responders’ Responsibility for Protecting Evidence at the Scene of an Aircraft Accident/Incident
- FAR Part 139 Sections 315 through 319.
Manual Breakdown

- Section 1: Overview
- Section 2: Aircraft Types, Terminology & Construction
- Section 3: Properties of Fuels & Extinguishing Agents/Attack Methods
- Section 4: ARFF Operations/Response Procedures
- Section 5: Evidence Preservation
- Section 6: Family Assistance Support Team
- Section 7: Aircraft Recovery & Restoration of Airport Services
Manual Breakdown Con’t

- Appendix A: Quick Reference Sheet
- Appendix B: MWAA Foam & Twin Agent Unit Listing
- Appendix C: ARFF Incident Command Board
- Appendix D: ARFF Vehicle Standby Positions
- Appendix E: Activation of RHCC
- Appendix F: NCR ATC Frequencies
- Appendix G: NTSB Response to Aircraft Emergencies Guidelines
The Manual

- MWAA ARFF Manual Final January 2013.docx
## Aircraft Response Matrix

<table>
<thead>
<tr>
<th>Fuel Fires</th>
<th>Wheel Fire / Hot Brakes</th>
<th>Wheel / Tire Failure</th>
<th>Engine Fire</th>
<th>Interior Fire / Smoke In Aircraft</th>
<th>Alert III</th>
</tr>
</thead>
<tbody>
<tr>
<td>2nd Foam</td>
<td>1. Set up in position to assist 1st Foam Unit for mass application 2. Assist in handline deployment</td>
<td>1. Back up 1st foam unit @ 45° 2. Check &amp; Check 3. Protect rescue path as necessary</td>
<td>1. Back up 1st foam unit @ 45° 2. Check &amp; Check 3. Protect rescue path as necessary &amp; back up 1st ARFF</td>
<td>1. Position to provide water supply for 1st Foam 2. Check &amp; Check 3. Assist with EVAC</td>
<td>1. Back up 1st foam unit @ 45° 2. Check &amp; Check 3. Protect rescue path as necessary &amp; back up 1st ARFF</td>
</tr>
<tr>
<td>3rd Foam</td>
<td>1. Remain uncommitted to the scene &amp; Standby 2. Water supply for 1st and/or 2nd ARFF Units</td>
<td>1. Remain uncommitted to the scene &amp; Standby 2. Water supply for 1st and/or 2nd ARFF Units</td>
<td>1. Remain uncommitted to the scene &amp; Standby 2. Water supply for 1st and/or 2nd ARFF Units</td>
<td>1. Remain uncommitted to the scene &amp; Standby 2. Water supply for 1st and/or 2nd ARFF Units</td>
<td>1. Remain uncommitted to the scene &amp; Standby 2. Water supply for 1st and/or 2nd ARFF Units</td>
</tr>
<tr>
<td>1st Engine</td>
<td>1. Position for best Ingress &amp; DO prepared to position aerial 2. Triage Unit Leader (if able)</td>
<td>1. Position for best Ingress &amp; DO prepared to position aerial 2. Triage Unit Leader (if able)</td>
<td>1. Position for best Ingress &amp; DO prepared to position aerial 2. Triage Unit Leader (if able)</td>
<td>1. Position for best Ingress &amp; DO prepared to position aerial 2. Entry, Vent, SAR 3. Triage Unit Leader (if able)</td>
<td>1. Position for best Ingress &amp; DO prepared to position aerial</td>
</tr>
<tr>
<td>1st Truck / 2nd Engine</td>
<td>1. Standby and wait for assignment from IC</td>
<td>No dispatched unless incident escalates</td>
<td>No dispatched unless incident escalates</td>
<td>1. Standby and wait for assignment from IC 1. Extraction Group Supervisor or other assignment</td>
<td>1. Standby and wait for assignment from IC</td>
</tr>
<tr>
<td>1st Medic</td>
<td>Reports to Treatment UL</td>
<td>Reports to Treatment UL</td>
<td>Reports to Treatment UL</td>
<td>Reports to Treatment UL</td>
<td>Reports to Treatment UL</td>
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<tr>
<td>EMS Supervisor</td>
<td>Medical Group Supervisor</td>
<td>Medical Group Supervisor</td>
<td>Medical Group Supervisor</td>
<td>Medical Group Supervisor</td>
<td>Medical Group Supervisor</td>
</tr>
</tbody>
</table>
### Aircraft Incident Command Board

**Address/Command:**

**Aircraft Type:**

**Carrier/Flight:**

**Fuel/Hazards:**

**Strategy:**

- Offensive
- Defensive
- Transitional

**Reported Emergency**

**PAR Check:**
- 10 Min.
- 20 Min.
- 40 Min.
- 60 Min.

<table>
<thead>
<tr>
<th>Resources</th>
<th>1st Alarm</th>
<th>Assignment</th>
<th>2nd Alarm</th>
<th>Assignment</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>ENG</td>
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<tr>
<td>FOAM</td>
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<td>FOAM</td>
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<td></td>
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<tr>
<td>FOAM</td>
<td>Primary Search</td>
<td>Primary Search</td>
<td>Primary Search</td>
<td>Primary Search</td>
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<tr>
<td>TRK</td>
<td>Rescue</td>
<td>Fire Control</td>
<td>Fire Control</td>
<td>Fire Control</td>
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<td>RES</td>
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<td>MCSU</td>
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<tr>
<td>SOFR</td>
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</tbody>
</table>

### Tasks/Notifications

- Rescue: Station Fill, NTSB/FBI
- Exposures: M/A Escort, Airline
- Confinement: R.H.C.C., Eng./Maint.
- Extinguishment: Pages, Environmental
- Overhaul: Preplans, V.D.E.M.
- Foam Resupply: Gas/Power Co., P.I.O.
- Water supply: Rehab/Canteen, C.I.S.M.
- Air Stairs: MCP, Personnel Recall
- Ventilation: Bus/Mob.Lounge, M/A OEM's
- Utility Control: Family Support
- HM/Spill Control: AC Recovery

### Total on Aircraft

- Patient Count
- Total: [ ]
- Total on Aircraft: [ ]
## Aircraft Incident Command Board

<table>
<thead>
<tr>
<th>Address/Command</th>
<th>Runway</th>
<th>Staging Area</th>
<th>Gate 317</th>
<th>Tactical Channel</th>
<th>3M</th>
<th>Command Channel</th>
<th>3F</th>
<th>RIT</th>
<th>E619</th>
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<tbody>
<tr>
<td>Aircraft Type</td>
<td>B747-8</td>
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<tr>
<td>Carrier/Flight</td>
<td>Lufthansa</td>
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<tr>
<td>Fuel/Hazards</td>
<td>8,497 Gallons</td>
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</tbody>
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### Strategy
- Offensive
- Defensive
- Transitional

### Reported Emergency
- Interior Fire

### PAR Check
- 10 Min.
- 20 Min.
- 40 Min.
- 60 Min.

### Resources

<table>
<thead>
<tr>
<th>1st Alarm</th>
<th>Assignment</th>
<th>2nd Alarm</th>
<th>Assignment</th>
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<tbody>
<tr>
<td>ENG 303</td>
<td>BC601</td>
<td>FOAM 303</td>
<td>M326</td>
</tr>
<tr>
<td>ENG 436</td>
<td>BC403</td>
<td>FOAM 326</td>
<td>M358</td>
</tr>
<tr>
<td>ENG 415</td>
<td>E623</td>
<td>FOAM 352</td>
<td>M358</td>
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<tr>
<td>ENG 619</td>
<td>E404</td>
<td>FOAM 358</td>
<td>M623</td>
</tr>
<tr>
<td>FOAM 303</td>
<td>TXP</td>
<td>TRK 302</td>
<td>M619</td>
</tr>
<tr>
<td>FOAM 326</td>
<td>TXP</td>
<td>TRK 436</td>
<td>EM5601</td>
</tr>
<tr>
<td>FOAM 352</td>
<td>TXP</td>
<td>TRK 302</td>
<td>EM5601</td>
</tr>
<tr>
<td>FOAM 358</td>
<td>TXP</td>
<td>TRK 436</td>
<td>EM5601</td>
</tr>
</tbody>
</table>

### Fire Attack
- BC306
- BC601

### Rescue
- BC306
- BC601

### EMS
- BC306
- BC601

### Tasks/Notifications

- Rescue
- Station Fill
- NTSB/FBI
- Exposures
- M/A Escort
- Airline
- Confinement
- R.H.C.C.
- Eng./Maint.
- Extinguishment
- Pages
- Environmental
- Overhaul
- Preplans
- V.D.E.M.
- Foam Resupply
- Gas/Power Co.
- P.I.O.
- Water supply
- Rehab/Canteen
- C.I.S.M.
- Air Stairs
- MCP
- Personnel Recall
- Ventilation
- Bus/Mob.Lounge
- M/A OEM's
- Utility Control
- Family Support
- HM/Spill Control
- AC Recovery

### Patient Count

| 0 | 0 | 3 | 289 | 293 | 293 |

### Diagram

![Aircraft Diagram]
Field Operations Guide

• MWAA ARFF FOG.pub
Thanks!

BETTER LUCK NEXT TIME!
Compliments of long lines, hose management and being "Combat Ready"