AERIAL DELIVERY AND FIELD SERVICES
DEPARTMENT
Fort Lee, Virginia

Support Starts Here!

As of 01 August 2018
• Mission and Priorities
• ADFSD Workload
• 4 Phase 92R AIT
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• Key Systems
• MRB Description and Purpose
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ADFSD Mission & Priorities

**ADFSD Mission**
Train members of the Joint Force, allied nations and Civilians as Parachute Riggers, Airdrop or Sling Load inspectors; and train Army Shower and Laundry Specialists. Develop doctrine support materials and perform proponency functions related to aerial delivery and field services.

**Quartermaster School Enduring Priorities**

1. Enhance Training and Leader Development
2. Develop Responsive QM Capabilities & Integrated Solutions
3. Maintain a Healthy Quartermaster Corps (Proponency)
4. Foster a Positive Command Climate
5. Engage in Community Outreach

**Vision**
A professional team, constantly improving our products, our community, and ourselves.
ADFSD Responsibilities

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1. Instructor Certification
   - NCOES
   - Resiliency
   - JM Training
   - FRG
   - Cadre Readiness

2. Force Design
   - CNA PAT
   - CSC
   - MARC Study
   - BADSC

3. Aerial Delivery Community
   - MRB - AR 59-4
   - Utilization Reports
   - POMPOC
   - AAB
   - Malf Reports
   - Flash Reports

4. INTEGRATION & Sustainment Training
   - RA-1 NET
   - MC-6 NET
   - PRO Pack
   - DT/OT
   - JPADS 10K NET
   - ALVADS TM
   - Staff Assistance Visits (SAV) -- AR 750-32

5. Doctrine Support Product Development
   - 24 Technical Manuals - TR 25-36
   - ATP/AR Review 92R/92S CTSB
   - Urgent Revision (Interim) Procedures
   - ADMOC
   - QMSTX
   - 92S AIT
   - ALIC
   - MTTs
   - SLICC
   - BOLC
   - SO/EOD PRC
   - Training Load

Operational Support
Training Mission

UNCLASSIFIED
4 Phase 92R AIT

- USA/USAF/USMC
- 25 TNG days
- Cargo Parachute Systems
- Cargo Parachute Releases
- Type V platforms
- CDS
- JPADS 2K

Ph 1: Air Drop

- USA/USAF/USMC
- 17 TNG days
- Maintenance
- T-11R
- MC-6

Ph 2: Pack & Maint.

- USA Only
- 11 TNG days
- T-11
- QMFTX
- USA/USMC Graduation

Ph 4: T-11 & QMFTX

- USA/USAF
- 16 TNG days
- RA-1
- Parachutist Oxygen Mask

USMC MMPS = Phase 3 & 4

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# Training Statistics

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<th>COURSE</th>
<th>Course Length</th>
<th>FY 18 Projection</th>
<th>FY 18 # Classes</th>
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<td>11 wks 4 days*</td>
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<td>RA-1 NET MTT</td>
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<td>As Requested (320)</td>
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<td>71</td>
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<td><strong>TOTAL</strong></td>
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<td><strong>3,814</strong></td>
<td><strong>137</strong></td>
<td><strong>2,924</strong></td>
<td><strong>126</strong></td>
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</table>

*FY 19 PRC – 13 wks, 4 days
ADFSD Key Systems

Personnel Parachute Equipment

- T-11
- MC-6
- AEBP
- RA-1
- POM

Cargo Parachute Equipment

- G-11
- G-12
- 26ft HV
- JPADS 2k
- JPADS 10k

Field Services Equipment

- 12 Head Shower
- LADS
- CBL

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MRB Description and Purpose

Description

The Triannual Airdrop Malfunction and Safety Analysis Review Board - commonly referred to as the Malfunction Review Board (MRB) is a recognized forum under the Department of Defense and across the Services as a safety board event designed to analyze and prevent parachute malfunctions on personnel parachutes and Aerial Delivery (AD) equipment. The MRB is also open to United States Allies and International partners for attendance. The MRB is an important information exchange venue for parachutes and aerial delivery equipment messages, developments and updates.

The MRB analyzes all types of reported airdrop and personnel parachute malfunctions within all services to prevent recurrence, to review current doctrine procedures, training, and maintenance issues. The MRB also identifies “trends” on parachutes and airdrop equipment malfunctions and provides potential solutions to mitigate them.
Aerial Delivery Manuals and Malfunctions Office (ADM/MO)

Sole activity for DoD supporting the Joint force with Aerial Delivery Technical Manuals (TM) and malfunction analysis at the Airdrop Malfunctions Review Board.

Doctrine Support Product TM:

Aerial Delivery Rigging procedures:

Publish Aerial Delivery TM

Requirements

Joint Forces:
Army
Air Force
Navy
Marines
Coast Guard
COCOMs

Interoperability

Coalition Partners

Interoperability

MRB

Universal Flash Report

Malfunction Reporting

TRADOC

Publishing Guidance

ATEC

Tests Equipment

TACOM

Provide Equipment

ADM/MO

Includes Urgent Revision
INTERIM procedures*

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Purpose
Board's charter - identify actions and processes required to reduce malfunctions through DOTMLPF analysis. Through education and Doctrine process, revise and update technical Aerial Delivery (AD) rigging and logistic information and improve joint relations through lessons learned.

Concept of Operations
conduct MRB to:
- host Army, Navy, Air Force, Marine Joint Key Stakeholders. All Services Safety Centers, DA-G-4, TRADOC, XVIII ABN Corps, USASOC, Army Airborne Board (AAB), Program Manager, Natick RDT&E, DA Civilian & Industry representatives for a joint services forum on Aerial Delivery (AD) and malfunction issues.
- Reduce Malfunctions Through Analysis and Education
- Pass Along Technical Rigging and Logistic Information
- Improve Joint Relations via Dialogue & Share Information

Next MRB:
- 30 OCT - 1 NOV 18 (157th)  - 25-27 FEB 19 (158th)  - 24-26 JUN 19 (159th)  - 28-30 OCT 19 (160th)
MRB One-Stop


- Currently serves as a lead-in page to the new “milSuite”
- Conveys ADFSD intended Purpose and Goals for milSuite migration, registration instructions, and helpful links
- Utilized as a contingency to milSuite in the event of web-site failure
- Established active link to milSuite page

Support Starts Here!
### MRB 156th MFF Malfunctions Analysis Results

<table>
<thead>
<tr>
<th>Total Dropped</th>
<th>Malfunctions</th>
<th>Incidents</th>
</tr>
</thead>
<tbody>
<tr>
<td>28,200</td>
<td>18</td>
<td>15</td>
</tr>
</tbody>
</table>

- **Operational Force** (22)  
  - Line over (4)  
  - Premature break release (2)  
  - Pilot chute (2)  
  - Premature break release (2)  
  - Tension knots (1)  
  - Hard pull (1)  
  - Snivel (1)  
  - Inverted risers (1)

- **MFF Basic Course** (6)  
  - Line over (2)  
  - Line over (2)  
  - Horseshoe (1)  
  - Tension knots (1)  
  - Dual canopy (1)  
  - Entanglement (1)

- **Operational Force** (9)  
  - Line twists (2)  
  - Obstacle landing (2)  
  - Poor exit (2)  
  - Off DZ (1)

- **MFF Basic Course** (6)  
  - Line twists (3)  
  - Pilot chute hesitation (2)  
  - Floating rip cord (1)
MRB 156th MFF Malfunctions Analysis Results

• Trends (T) and Recommendations (R):

• (T) After analysis, the board determined **unstable body positions** during the opening sequence were the leading trend contributing to 14 of the 33 malfunction and incident reports. After analyzing the sworn statements, it is evident that jumpers are not continuing to **maintain a stable body position** or follow the proper **post opening procedures**.

• (R) The 156th Malfunction Review Board recommends that MFF jumpmasters at a unit level place further emphasis on the importance of maintaining a stable body position and correctly performing post opening procedures, under the guidance in Chapter 8 in TC 18-11.

• (T) After analysis, the board identified **improper fit and sizing of the container** as the reason for several different malfunctions. Properly wearing the parachute is crucial in preventing several different possible incidents during freefall and the opening sequence.

• (R) The 156th Malfunction Review Board recommends that the MFF jumpmasters, at the unit level, confirm that parachutists have **properly donned their equipment**, IAW Chapter 6 in TC 18-11, during the JMPI sequence. A **donning class conducted prior** to the Airborne Operation may result in fewer incorrectly sized and donned parachutes.

• (T) After analysis, the board found that jumpers were unable to correctly **identify the difference in malfunctions** and this was a contributing factor to the reported number of line over malfunctions.

• (R) The 156th Malfunction Review Board recommends that **units use any available training aids** to educate their jumpers in how to correctly identify and differentiate between malfunction types. Training aids may include but are not limited to; videos, photos, virtual simulators, etc.
## MRB 156th S/L Malfunctions Analysis Results

<table>
<thead>
<tr>
<th>Total Dropped</th>
<th>Malfunctions</th>
<th>Incidents</th>
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<tbody>
<tr>
<td>67,118</td>
<td>17 Malfunctions</td>
<td>80 Incidents</td>
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<tr>
<td></td>
<td>Broken control lines (13)</td>
<td>Operational Force (39)</td>
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<tr>
<td></td>
<td>Corner vent crossover inversion (2)</td>
<td>Reserve activations (21)</td>
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<td></td>
<td>Separated sleeve (1)</td>
<td>Entanglements (10)</td>
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<td></td>
<td>Equipment failure (1)</td>
<td>Static line (3)</td>
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<td></td>
<td>PLF injury (4)</td>
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<tr>
<td></td>
<td>Off DZ (1)</td>
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</table>
MRB 156th S/L Malfunctions Analysis Results

• Trends (T) and Recommendations (R):
  
  MC-6:
  • (T) After analysis, the board determined broken control lines continue to be an issue in which we have not identified a cause.
  
  • (R) The 156th Malfunction Review Board recommends all units pack and IP the MC-6 IAW TM 10-1670-327-23&P.
  
  • (R) The 156th Malfunction Review Board recommends TACOM ILSC / PM-SCIE personnel investigate adopting the Australian Army MC-6 packing procedures which reduced their incidents of broken control lines.
  
  • (R) The 156th Malfunction Review Board recommends testing new procedures for control line tension during in-processing and packing.
  
  • (R) The 156th Malfunction Review Board recommends ADFSD conduct a detailed analysis of historical control line break reports to identify trends (A/C type, door, ramp, etc.).
  
  T-11:
  • (T) After analysis, the board determined mass exit entanglements are a consistent occurrence and probability increases when parachutists have twisted suspension lines.
  
  • (R) The 156th Malfunction Review Board recommends 1/507th PIR review current mass exit procedures, develop new mass exit options, and task ATEC for testing.
  
  • (R) The 156th Malfunction Review Board recommends 1/507th PIR review current body position during exit procedures relevant to new equipment, then task ATEC for testing.
MRB 156th Equip Malfunctions Analysis Results

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<td>M-1 (8)</td>
<td>Load rigging (8)</td>
<td>Early release (1)</td>
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<td>M-2 (1)</td>
<td>Aircraft rigging (4)</td>
<td>Equipment failure (1)</td>
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<td>ADS locks (2)</td>
<td>EFTC (2)</td>
<td>Off DZ (1)</td>
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<td>Obstruction (1)</td>
<td>Drogue parachute (1)</td>
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<td>Damaged equipment (3)</td>
<td>Cargo parachute (1)</td>
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</tr>
<tr>
<td></td>
<td>Extraction parachute (1)</td>
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</table>

• Trends (T) and Recommendations (R):

• (T) After analysis, the board determined the leading suspected cause was attributed to **equipment failure**, specifically the M-series cargo parachute release.

• (R) The 156th Malfunction Review Board recommends all using units of the **M-series cargo parachute release** continue to vigilantly inspect all equipment and report quality deficiencies. Also, the Aerial Delivery Engineering Support Team will continue to investigate through the **Product Quality Deficiency Report process**, in conjunction with DLA/ILSC to ensure proper equipment is fielded. ADFSD provide **M-series cargo parachute release sustainment training**. ADFSD provide **updated MO training to the joint force through a common digital platform (JKO)**.
• RELEASED:
  • RA1 Reserve Ripcord Grip & Pilot Chute (29 May 2018)

• PENDING OFFICIAL RELEASE:
  • MWO Corner Vent Retaining Band Stow (Safety Confirmation)
  • Proper Ram-air Orientation (PRO) Packing Procedures (Completed awaiting staffing)
  • Hand Deployed Pilot Parachute, Bottom of the Container (Completed awaiting staffing)
Questions??

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