Aerial Delivery
and Field Services Department

August 17

Agenda

- Mission and Priorities
- ADFSD Overview
- MRB Description and Purpose
- Definitions: Malfunction and Incident
- MRB MilSuite Information
- Static Line and Airdrop Trends
- Static Line Parachute Malfunction Data
- Static Line Jumps Data
- Airdrop Equipment Malfunction Data
- Questions

ADFSD Mission & Priorities

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

ADFSD Mission

Train members of all branches of the Armed Services, allied nations and Civilians as Parachute Riggers, Airdrop or Sling Load inspectors, and Shower and Laundry Specialist. Develop doctrine support materials and perform proponency functions related to aerial delivery and field services

Focus Areas

Systems & Processes
Trust & Relationships
Effective Communication
Accountability & Maintenance
Safety

ADFSD PRIORITIES

1. Student Training

- Relevant, Rigorous POI
- Well resourced
- Safety

2. Operational Support

- Timely Doctrine Updates
- Readiness (MRB, AAB, SAV)
- Integration w/ partners

3. Cadre Readiness

- Technical training
- Resiliency
- Family time

Goal

Constantly Improve: our products, our community, and ourselves.

Support Starts Here!

ADFSD Overview

Annual Training Load

FY 15 – Actual 2294 students
FY 16 – Actual 3387 students
FY 17 – Projected 2900 students

Courses

	Course Length
• **Parachute Rigger Ph 1, 2 & 3 (92R10 – ITRO)**	11 wks, 4 days
Phase 1 (Airdrop rigging / extraction parachute)	19 days(USA,USAF,USMC, FM)
Phase 2 (Aerial equipment repair, parachute packing)	25 days (USA,USAF,USMC, FM)
Phase 3 (Army T-11M parachute/QM FTX, MC MMPS)	10 days (USA, FM)
• **Shower & Laundry Spec (92S10)**	6 wks, 2 days

Functional Courses

	Course Length
• Aerial Delivery & Materiel Officers (8A-SIR9)	~~5 wks, 3 days~~
• Sling Load Inspector Certification	1 wk
• Airdrop Load Inspector Certification	1 wk
• EOD Parachute Rigging (USN)	4 wks

Primary Tasks

- Train Joint Technical 92R Parachute Riggers and Army 92S Shower & Laundry professionals
- Support 92R DOTMLPF initiatives and Army Airborne Board requirements
- Publication development of Aerial Delivery TM Updates
- Provide foreign military sales new equipment training support packages
- 92R/92S: Credentialing

4-Phased Parachute Rigger Course (FY19)

13-wks, 4-days

Phase 1 (Airdrop rigging/Cargo Parachutes)	25 days (USA/USAF/USMC/FM)
Phase 2 (Equipment repair/parachute packing)	17-days (USA/USAF/USMC/ FM)
Phase 3 (RA-1/Parachute Oxygen Mask)	16 days (USA/USAF/FM)
Phase 4 (Army T-11M parachute/QM FTX)	11 days (USA/FM)

Malfunction Review Board (MRB) Description and Purpose

Description:
The 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 airdrop 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.

Purpose:
The triannual airdrop malfunction and safety board purpose is to analyze 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 identify "trends" on parachutes and airdrop equipment malfunctions and provides potential solutions to mitigate them.

Next MRB:

- 24-26 OCT 17 (154th)
- 27 FEB - 1 MAR 18 (155th)
- 26-28 JUN 18 (156th)
- 30 OCT - 1 NOV 18 (157th)

DEFINITIONS (AR 59-4)

Malfunction is defined as "the failure of an airdrop item or component of an airdrop system to function as it was intended or designed," whether the equipment failed because of human error or emergency procedures used.

Incident is defined as any "procedure that prevented the successful completion of any planned airdrop operation." Some examples of airdrop incidents include, but are not limited to, towed jumpers (cutaway or retrieved), dual deployments of parachutes, entanglements resulting in reserve parachute deployment, and inadvertent automatic activation device actuations.

Note:
All incidents or malfunctions that happened to a parachutist, heavy drop load or a container delivery system bundle will be reported to Aerial Delivery and Field Service Department (ADFSD) using DD Form 1748–2, (normally) as per guidance under AR 59-4, the Senior 921A unit SME reviews the report prior to submission to the USAQMS.

MRB MilSuite

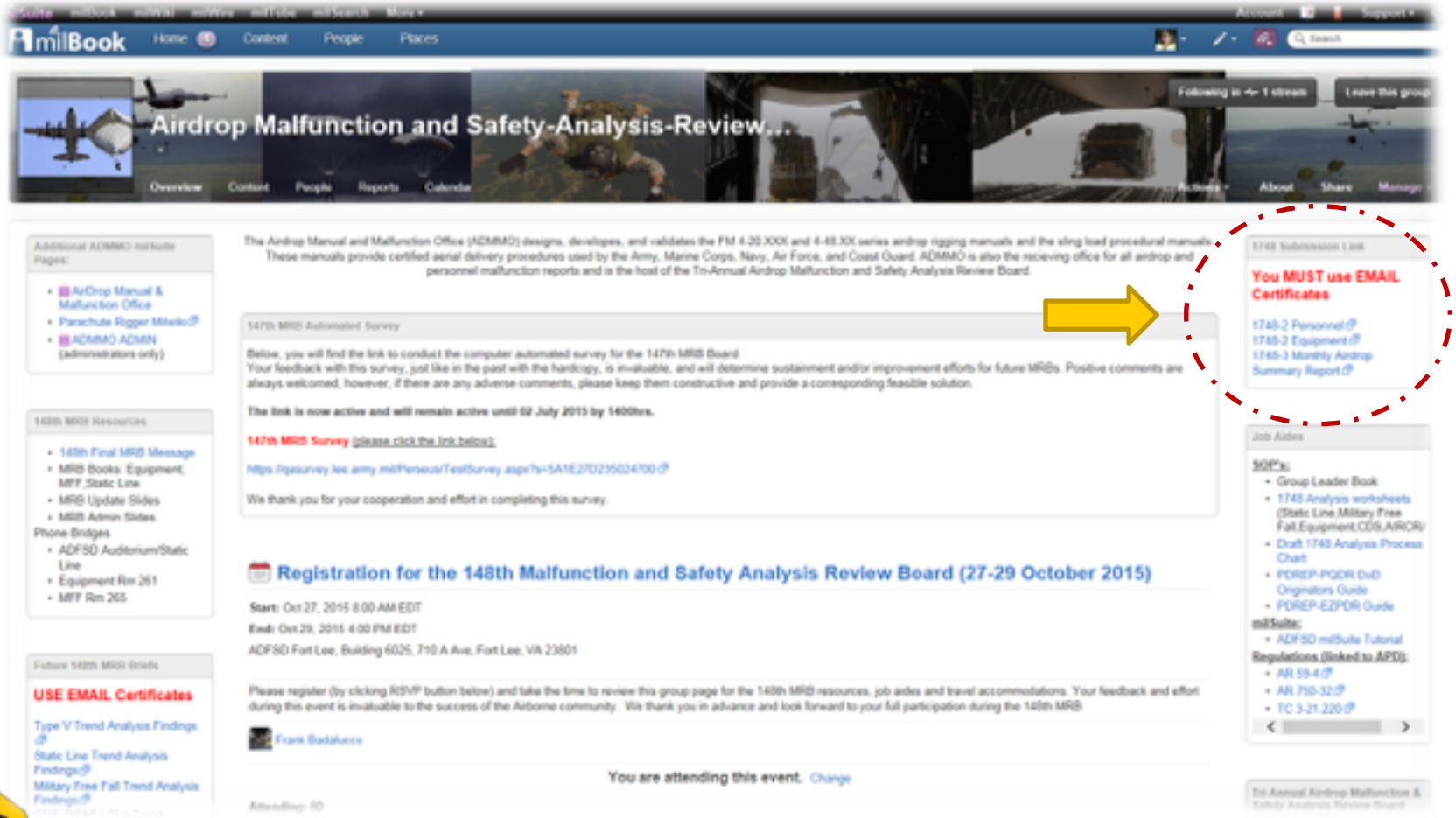
https://www.milsuite.mil/book/groups/airdrop-malfunction-and-safety-analysis-review-board

MRB One-Stop

"MRB One-Stop" link

- Existing Link -http://www.quartermaster.army.mil/adfsd/adfsd_mrb_one_stop.html
- 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

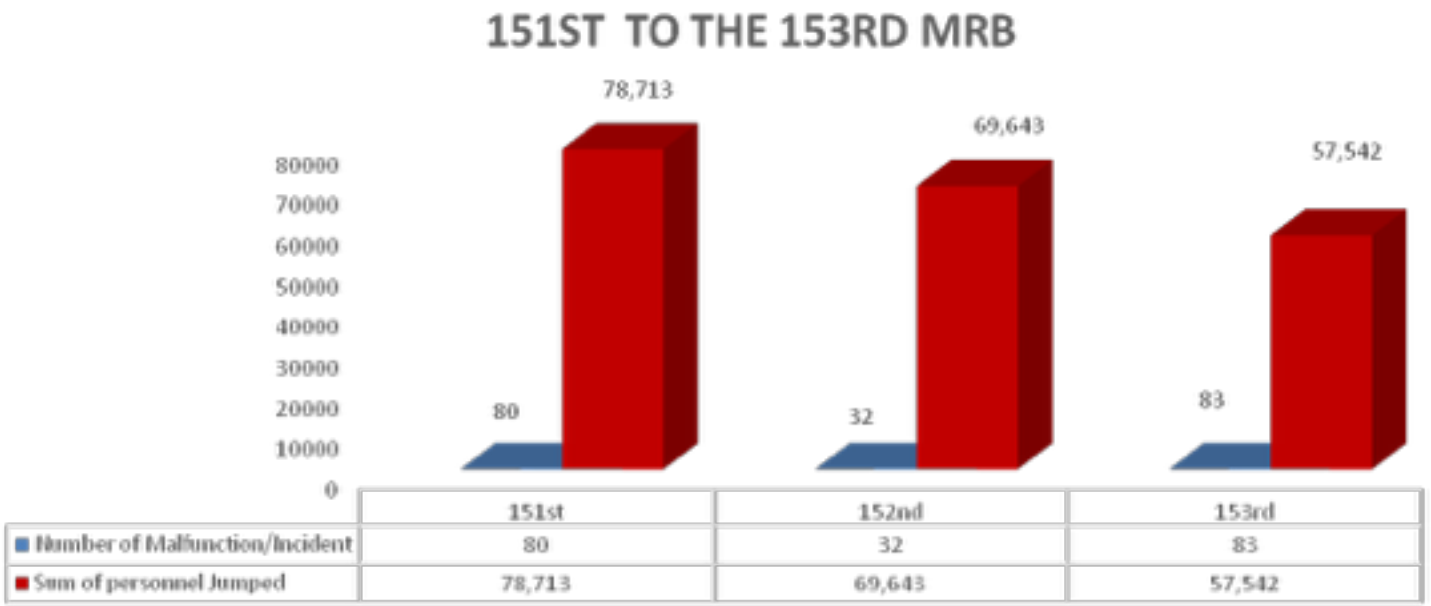
Share Point



MRB One-Stop

- **"MRB One-Stop!"**
  - Automated surveys
  - Continued updates, products/links, and job aides
- **DISA SharePoint :**
  - Use milSuite link as the primary means for submission of malfunction/ incident report
  - An automated workflow approval process
  - Generation of MRB Group Leader Books
  - "Analysis" and "Back-briefs"
  - Establishment of graphic and metric "Trend Analysis"
  - Automation for future products

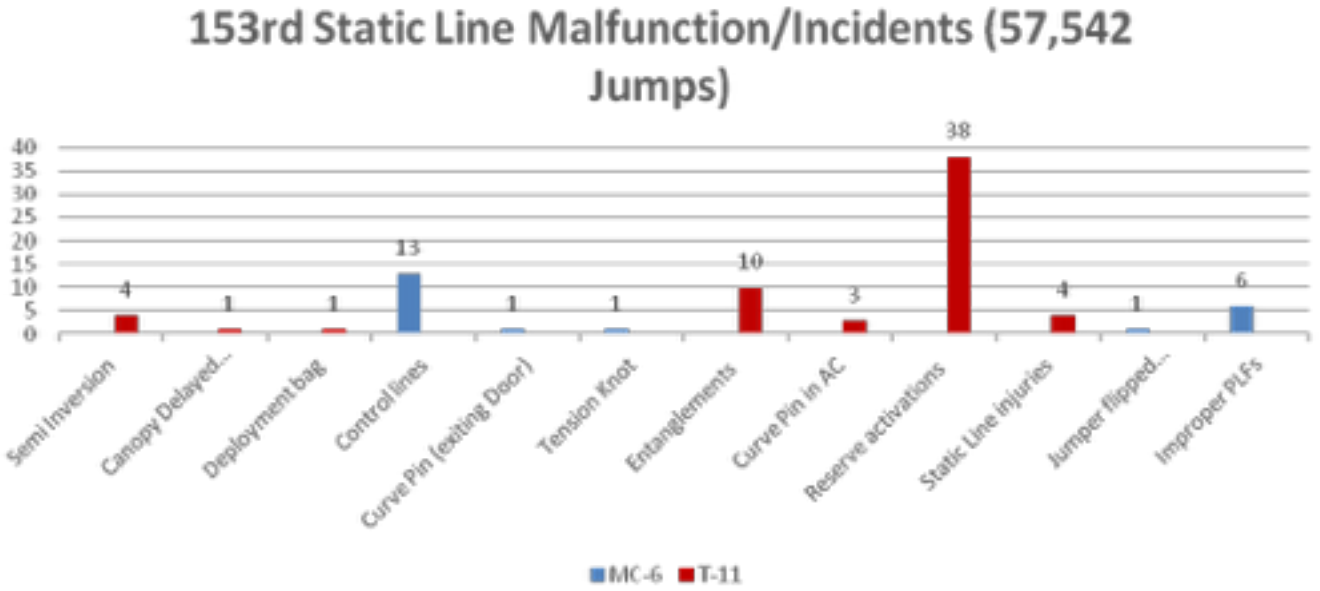
Parachute Jumps and Airdrop Trends



	151st	152nd	153rd
Number of Malfunction/Incident	80	32	83
Sum of personnel Jumped	78,713	69,643	57,542

S/L Parachutes Jumps Data

T-11/MC-6



Malfunctions/ Incidents:
T-11 – 61
MC-6 - 21

Data Range:
Feb 16 – May 16

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- **Incident** is defined as any "procedure that prevented the successful completion of any planned airdrop operation." Some examples of airdrop incidents include, but are not limited to, towed jumpers (cutaway or retrieved), dual deployments of parachutes, entanglements resulting in reserve parachute deployment, and inadvertent automatic activation device actuations.

MRB 153rd S/L Malfunctions Analysis Results

General Findings: There were approximately 57,542 military static line parachutes jumped during February 2017 through May 2017. Of those 57,542, ADFSD received 83 DD 1748-2 malfunction reports containing 62 incidents and 21 malfunctions. The board found that the 1/507th reported a T-11 suspension line length difference after a parachute malfunction. The MC-6 has shown a higher rate of broken control lines than the MC-7 and the SF-10A (based on experienced parachute riggers' knowledge). The board found four premature curve pin activations (three with the T-11, and one with the MC-6).

Trends: After analysis, the board determined the majority of the reports were from the 1/507th and their willingness to submit all reports, including reserve activations, when a malfunction was not present (38). This board has observed an continuing trend with the MC-6 having broken control lines when jumped from the ramp of a high performance aircraft (13) and the T-11 showing a trend with 1/507th jumpers having twists (due to poor body position and lack of experience) causing corner arm entanglements and reserve activations.

Recommendations: The 153rd Malfunction Review Board recommends:
1. NSRDEC to publish the allowable tolerance between suspension lines for all static line parachute systems and for ADFSD to incorporate suspension line lengths on any reported T-11 malfunctions.
2. ADFSD uses the Universal Flash Report to follow up on all activated reserves that are not reported on a DD 1748-2.
3. ABNSOTD, Fort Bragg, to provide a brief at the next MRB on an overview of the test data between the MC-6, MC-7 and SF-10A (specifically for the change in the packing procedures for the stowing of the control lines and the broken control line rate).

MRB 153rd MFF Malfunctions Analysis Results

General Findings: There were approximately 12,808 military free fall parachutes jumped during February 2017 through May 2017. Of those 12,808, ADFSD received 48 DD 1748-2 malfunction reports containing 11 incidents and 37 malfunctions. The board has found a trend in the airborne community, including jumpmasters and aircrew, of a lack of proficiency as a causal or contributing factor in 20 of 48 (42%) malfunction reports.

Trends: The board found a trend in jumpers identifying other issues as line overs when there was no evidence to support a line over, such as burns, holes, or tears in the canopy. There were seven RA-1 reports that were initially identified as line overs; however, the board identified only 3 of 7 were actually line overs with the remaining reports consisting of three bad body position and one line twist. The board also found there were 13 of 37 (35%) malfunction reports which stated the main canopy was either not recovered or no information was provided on recovery/inspection.

Recommendations: The 153rd Malfunction Review Board recommends:
1. USASOC direct the Military Free Fall School to develop a new video explaining and illustrating emergency situations and procedures. The video needs to stress correctly conducting emergency procedures, specifically the hard rip cord pull with the RA-1.
2. ADFSD should separate Military Free Fall School malfunction reports (1748-2) and summary reports (1748-3) from the operational community. This will provide a more accurate representation of what the field is experiencing without accounting for student inexperience.

MRB 153rd Equipment Malfunctions Analysis Results

General Findings: There were approximately 4,068 equipment airdrops during February 2017 through May 2017. Of those 4,068, ADFSD received 18 DD 1748-2 malfunction reports containing 2 incidents and 16 malfunctions.

Trends: After analysis, the board determined that the majority of suspected causes were attributed to aircrew rigging and Joint Airdrop Inspection (JAI) procedures. The board reviewed four M-1 parachute release reports and suspected that M-1 delay release timers were a contributing factor. Units are following up these malfunction reports with Product Quality Deficiency Reports (PQDR) to the proper screening point. The board reviewed four drogue parachute reports and concluded a contributing factor was material failure occurring at different points in the product life cycle mainly due to unknown airdrop usage history. Lastly, the board concluded that numerous malfunction reports submitted lack complete investigation details and supporting documentation, showing units are not following guidance set forth by AR 59-4/AFJ 13-210(I).

Recommendations: The 153rd Malfunction Review Board recommends:
1. ADFSD should reject malfunction reports with equipment failures that do not contain a Product Quality Deficiency Reports (PQDR).
2. ILSC advertise that the 2G acquisition code can be used to request the new 15-foot extraction/ drogue parachute.
3. Request ILSC brief all open and updated 1670 series PQDRs at each Malfunction Review Board (MRB) for units to understand issues throughout the field.
4. ADFSD will reinforce Malfunction Officer (MO) and Joint Airdrop Inspector (JAI) refresher training for all services on distance learning.

POCs/ LINKS

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ADMMO Dash Board:
https://www.milsuite.mil/book/groups/airdrop-manual-malfuctions-office

MRB One Stop Shop:
https://www.milsuite.mil/book/groups/airdrop-malfunction-and-safety-analysis-review-board

Guidance

RIGGER