

18 October, 2000

MEMORANDUM FOR RECORD

SUBJECT: Minutes of the Tri-annual Malfunction Review and Safety Analysis Board Conducted 18-19 October, 2000.

1. CW5 Art Waldo, ADFSD, Ft Lee, convened the board, and made administrative remarks. Electronic registration is encouraged, as it saves us all money and time. Group breakdown sessions should result in concrete analyses and decisions. CW2 Craig Land was introduced as the new ADFSD warrant officer in residence. Surplus copies of airdrop manuals are available at the front table. Take all you can use.
2. MSG Al Wagner gave administrative remarks, asked the attendees for Defense Message System e-mail addresses, gave phone numbers and advised of the non-availability number being the conformation number lodging gave you when no government quarters available. All attendees introduced themselves. The value of the board - the information exchange, updates on procedures and equipment, improvement of joint-service relations, and malfunction reduction were stressed.  
MSG Wagner went over the most current MAM's, GPM's and SOUM's which are available at the meeting or from MSG Wagner by e-mail. MAM's include messages on Type V panels, the MC4, 20-foot static lines, extension of G-13 life. GPM's address the 24-foot chest reserve, and the MC1-1 canopy. One Safety-of-Use Message, 00-01, concerns the D-rings on personnel parachute harnesses T-10 and MC1-1Cs.
3. Issues tasked at the 103<sup>rd</sup> Malfunction Review Board are as follows:
  - Type IV link, whether to eliminate, still under consideration
  - MC1-1C QDR, issue closed
  - C-17 troop door fairing is still open, SMGT Harmon of AMC stated the C-17 door fairing is not a problem, hinge type can drift open, which could create a safety problem and that should be checked (and is done so by the aircrew during flight) however both types can be used for personnel airdrops
  - C-17 door bundle static line, still open. CW3 Kendall advised that the 20-foot static line will be used for door bundles as an interim fix. CW 5 Neises advised that the Universal Static Line (USL) will be fielded about 03-01 and that it may be used as a cargo USL, but that tests must be conducted to ensure jumper contact with door bundle static lines will not happen. Also procedures must be developed to convert the USL to a cargo USL.
  - M-1 surveys to find out the needs of the field will go out sometime next week.. Please report the number of timers, retainer clamps, and toggle lock slides your unit needs.
  - Type V panel survey, closed.
  - Submission of 1748 -2 and - 3's, Open, A new server must be installed at CASCOM Ft Lee to make submission of your 1748-2's easier, even allowing digital photos to be attached.
  - One parachute in place of G-11B and C, issue is open and being worked by CW5 Waldo.
4. Guest Briefer's were as follows.  
CW2 Cortez Frazier
  - New Cumberland Army Depot is now Distribution Depot Susquehanna Pennsylvania (DDSP). His office is the Special Operation Logistics Division. CW2 Frazier briefed ongoing issues at DDSP. Other locations in the Army depot network are at Natick, MA, Rock Island, IL, Huntsville, AL, Richmond, VA, and Philadelphia, PA. Items are available from locations other than New Cumberland, but Chief Frazier advised that he may be contacted for items from the depot system that prove to be defective. Mr Frazier advised that supply problems often stem from the requisition process.

Users can help themselves by being sure the item is authorized for their unit, ordering the correct unit of issue, using correct status codes, advising DDSF of defects, and proper management of high-demand items. DDSF strives to complete orders in 24 hours. A new warehouse facility is in the works for 2003. Mr Dave Norris of Combat Developments, CASCOM, asked why users pay a surcharge. CW3 Venckus of Natick replied that the surcharge covers the cost of research and development, logistics and manuals for military items and the surcharge would be less if users did not continue to order items outside normal supply channels.

5. SMSgt Cliff Harmon, HQ AMC DOKT

- In accordance with Air Mobility Command guidelines AMC FCIF 00-02-17, in event of airdrop malfunction, accident or mishap, Loadmasters DO NOT handle, de-rig, or move any equipment unless for safety of flight reasons.
- Joint Airdrop Inspection personnel are not to participate or aid in aircraft rigging. An inspector should not inspect what he has rigged. Normally you will not catch your own mistake.
- USAF policy for foreign jumpers. The jump host is responsible for ensuring all jumpers are qualified, that their chain of command approves of the jump, and that the airlift unit and their own chain of command are informed.
- XVIII Corps and 82<sup>nd</sup> ABN are authorized 95% fuel level, diesel or JP8, in HMMWV's, provided other requirements of AFJMAN 24-204 are met. The vehicles have been properly modified to handle expansion of fuel, copy of waiver must be with the vehicle, and it must be noted on form 2133, block 17, that fuel has been adjusted to 95%. This waiver expires 31 AUG 02. Mr Waldo asked if this would be a standard across the board and SMSgt Harmon replied the waiver may apply to other vehicles later. Issue is being worked.
- Testing continues on dual row (OT in Jan 01) and TRIADS.

6. CMSG Gambert, AFSOC DOV, reminds the board that the mishap investigation issue, 00-02-17, is not just an AMC issue, but applies across the whole Air Force spectrum including AFSOC. Expect more communication and cooperation among the services in important matters such as this. MSG Al Wagner's office has become a central point for information and connections with others in the airdrop community.

7. CW3 Neises, SBCCOM, Natick

- Introduced MSG Sadler, the Quality Assurance specialist at SBCCOM Natick. She asks for specific addresses to deal with specific problems involving those units.
- USL samples used in testing were given out for inspection. The present materials are tentative, but will be similar and fielded about 1 MAR 01. Item cannot be ordered in one NSN, but there will be separate NSN's for each of the 4 components: static line, static line extension, snap hook, and D-bag. The USL will be girth-hitched to the snap hook, making a cleaner connection that will wear better. New USL will result in much less maintenance. Parachute packers can replace the static lines on the table. Expect a delay before the snap hooks will be available for the quantity of lines issued. First-response units will get them first. Old type VIII 20-foot lines will still be used.
- C-17 dual row testing to continue at least a year. New system was briefly described.
- Advanced Tactical Parachute System (ATPS) testing is on schedule; two contractors' offerings will be tested 3<sup>rd</sup> QTR-01.
- EPJS testing ongoing.
- MIRPS- some quality control issues. Please report defects

8. John Mahon , Aerial Delivery Equipment Support Team (ADEST), Natick
  - “OSCAR” program tests and implements suggestions for item improvement. For example, one-piece gores being suggested for G-11 parachutes. If it works, will save \$2000 per parachute.
  - fluorocarbon coating on fabric parts to repel dirt. This aids greatly in minimizing salt-water damage if washing is timely. If they cannot be washed quickly, keeping them in plastic until they can be washed may be a solution.
  - Hydraulic release for army special ops – let us know how many salt-water drops per year you do.
  - G-11/G-12 deployment bag sidebar meeting will convene this session. Please participate if you have problems with these. (SEE number 13 for results of this meeting.)
  - See Mr. Mahon on M-1/M-2 releases. Report any rollovers or other problems.
  - Serious accident, injury, or fatality- do not move equipment or allow area to be disturbed. This is extremely important to investigators. AR 385-40 makes this clear. AF, Navy, CID are working to standardize investigation procedures.  
Mr. Mahon asked Lisa Kolb of the Navy Special Warfare Center whether Navy personnel can Participate in freefall training after having had laser eye surgery. Other Navy personnel stated that the Navy imposes no restriction at this time.
  - Static line breakage is of command concern. Using any kind of cover on a static line actually increases the chances of breakage.
  - There are 60,000 T-10 parachute harnesses in the inventory. Some of them may have D-rings that may break. Safety of use message clearly states the weight limitations. Three different versions are found on T-10's and MC1-1's. If you have a high-speed malfunction, take that harness out of service. Mr Mahon advises that T-10's and T-10 reserves are not made to suspend the 400-500 pound loads that some users are imposing. If the rate of fall exceeds 21 feet per second, the chance of injury increases 70%. Natick action depends upon requirement documents to identify problems. Velocity is also a problem with harness and D-ring failures.
  - Report personnel parachute problems to the Infantry Center, Ft Benning, GA.
  - Mr Mahon from Natick has completed a summary of personnel drop malfunctions and injuries from 1974 through 1999. Items of interest:
    - Of 86 fatalities, 42% were due to entanglements. Of those, most were with the MC1-1, a maneuverable parachute.
    - 16 Of 86 fatalities were due to broken static lines. Combat equipment was always a factor with broken static lines.
    - In a fatality situation, DO NOT release the last 3 digits of an incident number, or any sensitive information. Coordinate any release of information with the Safety Center at Ft Rucker, AL.
    - All problems are not being reported, therefore jumpers also have the responsibility for reporting problems.
  
9. MSGT Crady, USMC, Navy Safety Center
  - BA-22 Air Force emergency parachute cable-loop-type canopy release assemblies seem easy to assemble incorrectly. He has observed this at more than one location, on more than one parachute. He observed two examples incorrectly rigged by Marines just out of rigger school. Parachutes obtained through Air Force channels have been shown to be incorrectly modified.
  - TPRS cannot be used for over the ramp operations.
  - USMC is interested in your surplus equipment.

## SECOND DAY

10. The board was briefed on the analysis findings of 48 personnel, 31 Heavy Equipment, 22 CDS and 22 Aircraft equipment malfunctions.
11. MSG Al Wagner announced the following Field Manuals/Technical Orders as completed:
  - FM 10-500-53/TO 13C7-18-41 – Ammunition
  - FM 10-500-77/TO 13C7-55-1 – Motorcycles and Quad Runners
  - FM 10-521/TO 13C7-6-21 – Tractors/Dozers
  - FM 10-552/TO 13C7-22-61 – Dragon/JavelinThe following are under development:
  - FM 10-500-2/TO 13C7-1-5 – Platforms
  - FM 10-500-71/TO 13C7-6-141- FMTV's
  - FM 10-500-16/TO 13C7-1-13 – Data for AD Platform Loads
  - FM 10-500-17/TO 13C7-1-111 – HMMWV's
  - FM 10-542/TO 13C7-51-21 – Loads for Special Operations
  - FM 10-550/TO 13C7-22-71 – Stingers
12. Be aware of URL change for Ft Lee website: [quartermaster.army.mil/adfsd](http://quartermaster.army.mil/adfsd)
13. MSG Paul Barsamian, Natick is managing the Air Items List. It is available on the web at <http://www.natick.army.mil/immc/airbackgr2a.htm> NOTE THIS WEBSITE WAS INCORRECTLY STATED AT THE MRB. THIS IS THE CORRECT ON ABOVE. MSG Barsamian can be reached at [paul.barsamian@natick.army.mil](mailto:paul.barsamian@natick.army.mil), DSN 236-6413. Be advised nomenclature can vary from what we're accustomed to for some items.
14. MSG Al Wagner gave the following equipment updates:
  - Do not substitute 3-point link nuts and bolts for those on the EFTC latch adapter. Bolt number on new assemblies is 11-1-3910-2. These bolts may become available as a separate item.
  - M-1 release bolts – new ones with cotter pin holes are OK to use. Correct bolt NSN is 5306-00-207-8362, which does not have the holes.
  - New contract EFTC cables are expected to ship by 1 Nov 00.
15. In open discussion, the following topics were brought forward:
  - Question. Do both troop doors have to be open on C-130 personnel jumps. If you only have a couple of jumpers and only one loadmaster why does the other door have to be open. Army answer was FM 57-220 states an outside air safety check is required. AMC taking as an issue/tasker
  - Question. What is the standard the AF thinks the paratroop doors can be left open as long as troopers who are not hooked up yet don't go aft of a specific flight station in the aircraft. Many Army personnel think the doors should be closed for numerous safety reasons such as possible accidental MIRPS deployments, and whether troops are forward of a point in the aircraft deemed safe. This matter is a new tasker. AMC/Infantry Center and School issue/tasker.  
Mr Mahon reminds that the maximum weight of a T-10 jumper is 360 pounds. This is suspended weight – you lose the jumper, equipment, and parachutes weights thus imposing more weight restrictions.
  - New USL's are available still for view.
  - G-11 safety ties on cutters are shown incorrectly in G-11B procedures in the TM. It is explained correctly, and shown correctly in other G-11 procedures. The tie is to be made around the 550 cord, NOT through the cutter fuse. CW3 Venckus urges 2028's on the subject, as one 2028 may be overlooked. CW 4 Jimenez issue tasker to send 2028 to CW3 Venckus
  - Question. What is the breaking strength of gutted 550 cord ? 297 pounds, according to Natick tests.
  - Need a systemic means of reporting and alerting involved parties to all malfunctions. Investigations can be hampered by non-availability of equipment and aircraft. Should WO advanced course be

tasked with this problem? During the review of AR 59-4 maybe this issue could be clarified.

- Marines report Ties on 26-foot and 12-foot HV parachutes are still being made with ¼-inch cotton instead of ticket 8/7 due to manual not being revised. MAM ATCOM 96- 015 addressed this issue for breakaway operations. Use a 18inch length of 8/7 cord to make the riser securing ties. Natick will post messages on its website in the future, so that the field might have a central source for these messages. MSG Wagner will pass MAM out to Marines for dissemination.
- Navy safety center asks for any information on dropping door bundles from helicopters.
- Those working on the MIRPS issue are concerned about the lack of specific information. They propose a specific form to address MIRPS problems. Such forms have been helpful with past problems. Jumpers MUST report MIRPS problems.
- Stock number will be available for new M-1 release toggles.
- Static line malfunction data will be shown by John Mahon again after this meeting is concluded .

16. SIDE BAR ISSUE: G11 D Bag (NYLON). A SF 368 Quality Deficiency Report (QDR) will be submitted by MSG Meador to the QA Office at SBCCOM, Natick, Ma. This QDR will identify the problems the field is having with the riser extension stow bar coming loose after airdrops when using the nylon D BAG. Also it will address the need to have a removable bridle so maintenance may be performed on the bridle. Mr. Greenwald agreed to submit an Engineering Change Plan (ECP) to reflect a removable bridle on future contracts. A maintenance procedure will be developed which will allow the field to modify the existing nylon D Bag to allow routing of the riser extension stow bar through these modifications which will be on the risers

17. Next Malfunction Analysis and Review Boards are tentatively 21-21 Feb 01, 20-21 June 01, and 17-18 Oct 01.

18. One hundred sixty-eight attendees reviewed 57 personnel and 123 equipment malfunctions.

//////SIGNED//////

Arthur L. Waldo

CW5, QM

Master Airdrop Systems

Technician