Subject: Gunner Strap & Tether Rigging

Area of Concern: Helicopter Operations

Distribution: Aviation Operations

Discussion: A recent incident involving a miss-rigged tether and gunner strap assembly occurred during aerial ignition operations and was communicated via SAFCOM 14-180. Post incident analysis revealed this was not an isolated event and that there were a few issues impacting the rigging. The first issue involved an improper attachment of the tether to the tether locator alone, the second was that the distance from the adjuster buckle to gunner strap was too excessive (greater than one inch) and last there was no locking stow of the tether back through the adjuster buckle.

To properly rig the gunner strap, route the tether through the adjuster buckle making sure the webbing passes over the center (ridge) portion of the adjuster buckle. Then route the tether around the gunner strap and through the tether locator (Attachment 1 MTDC-984). Pass the tether back through the adjuster buckle in reverse order and make sure there is enough slack to finalize the connection with a locking stow (Attachment 2 MTDC-993). When adjusted properly, the adjuster buckle should be located within approximately one inch of the gunner strap (Figure 1).

Some have miss-rigged this assembly by passing the tether through the tether locator only and failing to place the tether over/around the gunner strap. Just as important, the adjuster buckle can’t be more than one inch from the gunner strap in order to prevent it from looping back through the opening, resulting in the tether being attached to the tether locator only. (Figure 2).

Figure 1 (Attached Correctly)

Figure 2 (Attached Incorrectly)
Recommendations:

All aviation units using this type of assembly:

1. Immediately inspect all Gunner Belts and ensure the tether is attached in accordance with the drawing in MTDC-984 (Attachment 1)
2. Immediately inspect all tether straps ensuring correct threading with a finalized locking stow on the buckle in accordance with the drawing in MTDC-993 (Attachment 2)
3. Immediately inspect all tether straps to ensure the adjuster buckle is located NO FURTHER than one inch from the gunner strap (Figure 1)

NIAC:

1. Amend the Interagency Aerial Ignition Guide (IAIG) and the Interagency Helicopter Rappel Guide (IHRG) to include the MTDC-984 and MTDC-993 drawings.

USFS:

1. Amend the USFS National Rappel Operations Guide (NROG) to include the MTDC-984 and MTDC-993 drawings.

Manufacturers:

1. Ensure the MTDC-984 and MTDC-993 drawings are included with the equipment when shipped from the manufacturer.

Please contact Kevin Brown, MTDC Equipment Specialist if you have further questions or comments. kkbrown@fs.fed.us or 406-829-6784.

/s/ Keith C. Raley
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MATERIAL LIST

1. STRAP:
   - Nylon, MIL-D-133, MIL-D-4417, MIL-D-5625K
   - Resin MHCH Tubular Webbing MIL-W-43565, Color Black

2. NYLON V-T-295, TYPE I, CLASS A. "E"
   - Color Black

NOTES:
1. THE END OF THE WEBBING SHALL BE FUSED TO PREVENT RASSING.
2. STITCHING SHALL CONFORM TO ARM 0 81365, TYPE 2, 0-H STITCHES PER INCH.
3. BARTACKS SHALL BE 3/4 x 1/16 INCH LONG X 1/8 x 1/20 INCH WIDE AND GROUND 4/16 IRON.
4. THREAD FOR BARTACKING SHALL BE SIZE "E" THREAD. ALL OTHER STITCHING SHALL BE SIZE "F" THREAD UNLESS OTHERWISE SPECIFIED. THERE SHALL BE NO LUBRICATION OF THE THREAD.

SECTION AA

SECTION BB

THIS IS A REDUCED PRINT

Attachment 1
ATTACH ADJUSTABLE END TO HARNESS D-RING AND ADJUST FOR INDIVIDUAL FIT

ATTACH CARABINER TO D-RING ON TETHER ATTACHMENT

TAG END OF WEBBING PASSED THROUGH BUCKLE AGAIN TO ENSURE A SECURE HOLD

ENDS OF WEBBING PASS BACK THROUGH BUCKLE TO PREVENT SLIPPING SEE DETAIL A

DOUBLE PASS BUCKLE

SEAT BELT WEBBING

SEAT BELT ANCHOR HARDWARE

DETAIL A