



# Interagency Aviation SAFETY ALERT



OAS-25A  
(12/12)

No. IASA 14-01

MAY 15, 2014

Page 1 of 2

**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 [SAFECOM 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).

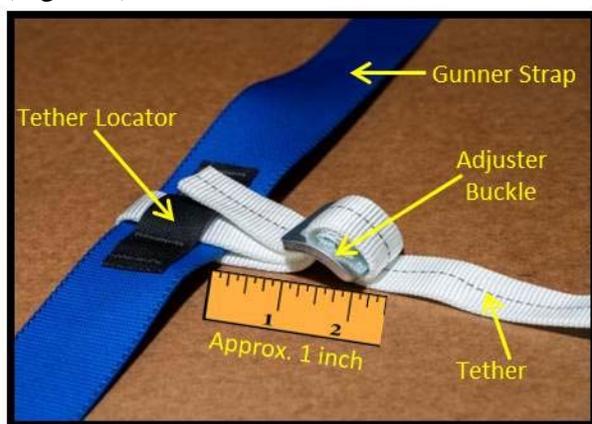


Figure 1 (Attached Correctly)



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.

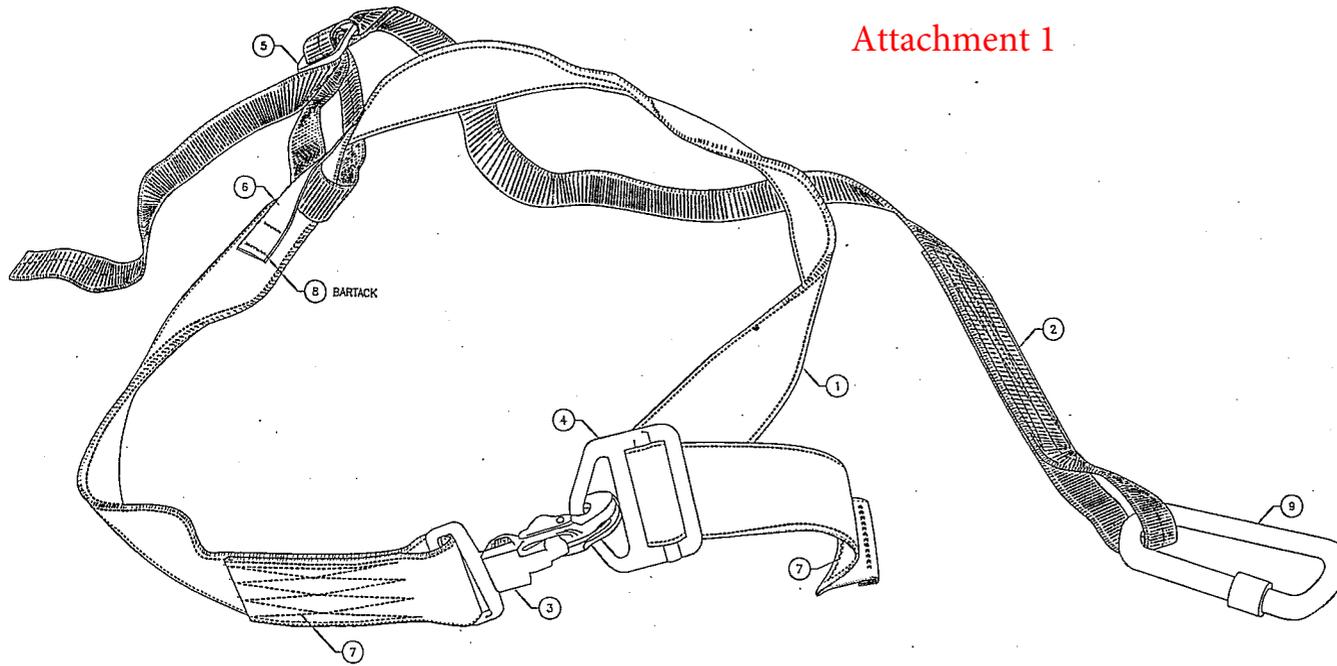
Please contact Kevin Brown, MTDC Equipment Specialist if you have further questions or comments. [kkbrown@fs.fed.us](mailto:kkbrown@fs.fed.us) or 406-829-6784.

/s/ Keith C. Raley  
Chief, Aviation Safety  
and Program Evaluation  
DOI, Office of Aviation Services

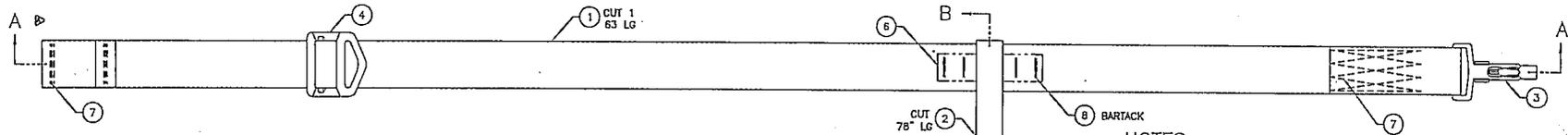
/s/ Gary Morgan  
Acting Branch Chief, Aviation Safety  
Management Systems  
USDA, Forest Service

# Attachment 1

MATERIAL LIST			
NO	PART NAME	RECD	MATERIAL-DESCRIPTION
1	STRAP	1	WEBBING, NYLON, T13, MIL-W-4088, RESIN IMPREGNATED, COLOR BLUE
2	PICTAL	1	1-INCH TUBULAR WEBBING MIL-W-5625K, COLOR NATURAL
3	EJECTOR SNAP	1	MS22017
4	V RING W/ADJUSTER	1	MS27765
5	ADJUSTER	1	FORGE CRAFT #4035
6	TEIHER LOCATOR	1	1-INCH MIL-W-4366B, COLOR BLACK
7	THREAD	AR	NYLON V-T-295, TYPE I, CLASS 1, SUBCLASS B, "FF" COLOR BLACK
8	THREAD	AR	NYLON V-T-295, TYPE II, CLASS A, "E", COLOR BLACK
9	CARABINER	1	SMC MODEL NFPA100001

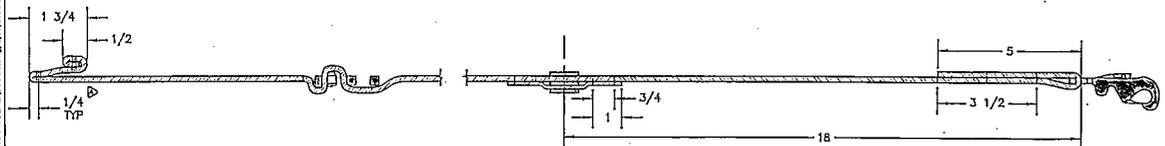


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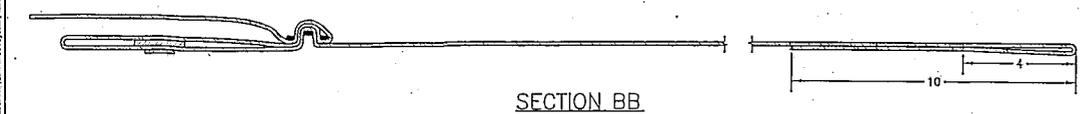


**NOTES:**

1. THE END OF THE WEBBING SHALL BE FUSED TO PREVENT FRAYING.
2. ALL STITCHING SHALL CONFORM TO ASTM D 6193, TYPE 301, 6-8 STITCHES PER INCH.
3. BARTACKS SHALL BE 3/4 ± 1/16 INCH LONG X 1/8 ± 1/32 INCH WIDE AND CONTAIN 42 STITCHES.
4. THREAD FOR BARTACKING SHALL BE SIZE "E" THREAD. ALL OTHER STITCHING SHALL BE SIZE "FF" THREAD UNLESS OTHERWISE SPECIFIED. THERE SHALL BE NO LUBRICATION OF THE THREAD.



SECTION AA



SECTION BB

05/15/08 CHANGE STITCH ON PART NO. 2 CHANGE ADJUSTER END DWM AND CUT LENGTH OF PART NO. 1

DATE	REVISION	BY

U. S. DEPT. OF AGRICULTURE  
FOREST SERVICE  
TECHNOLOGY & DEVELOPMENT CENTER  
MISSOULA, MONTANA

TITLE  
GUNNER STRAP  
BELL MEDIUM SERIES

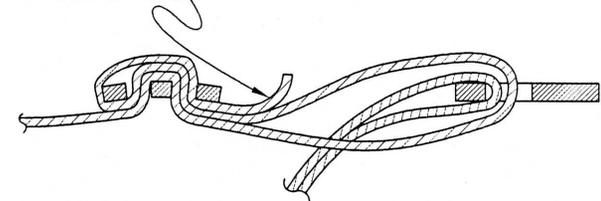
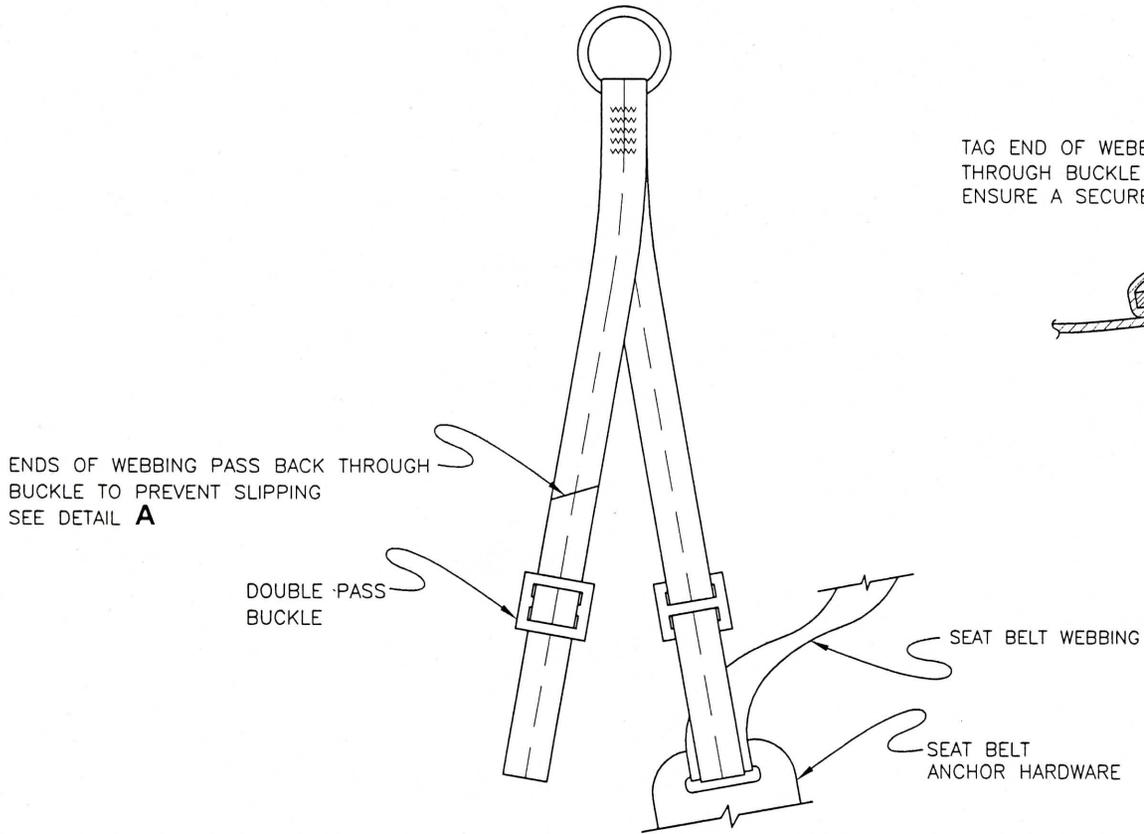
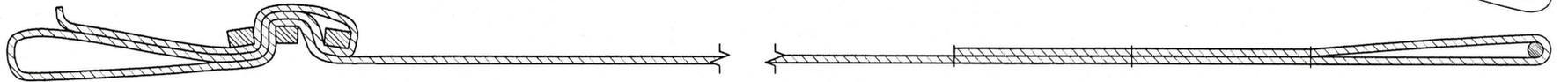
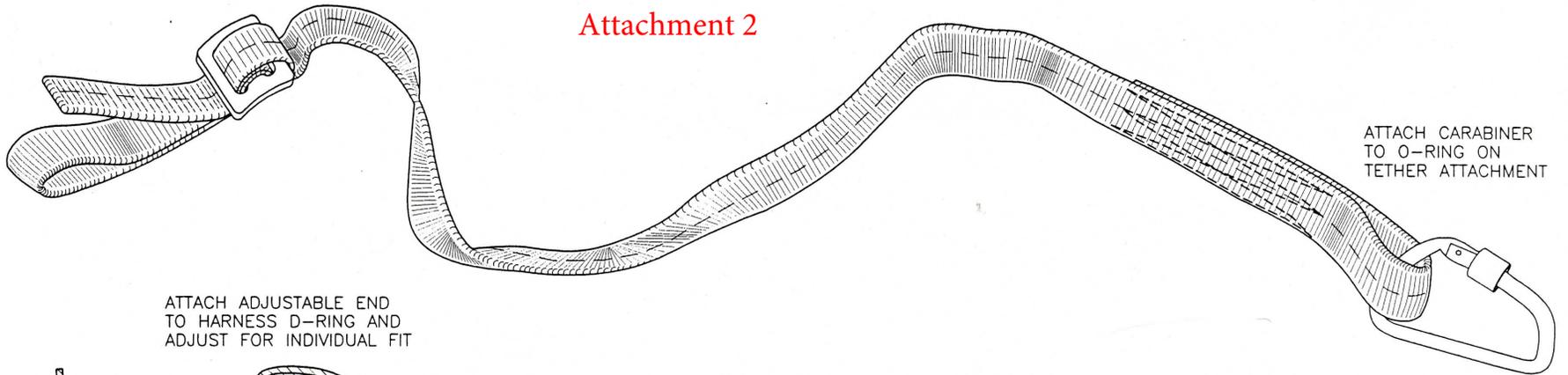
DRAWN D.MUCCI  
DESIGNED G.JACKSON  
CHECKED G.JACKSON  
APPROVED G.JACKSON

SCALE 1/2  
DATE MARCH 2000

394-02.DWG  
SHEET 1 OF 1  
MTDC-984

C:\Users\jackson\Documents\Projects\TechSpecs\Generic\Strap Bell Medium Series\01\01.dwg, 5/10/2006, 1:43:29 PM, T:\tech\14-21177

# Attachment 2



**DETAIL A**

01/16/2003 10:35:37 AM, Administrator, Letter, 1:1, 15091

UNLESS OTHERWISE SPECIFIED		1/15/03	REMOVE EXTRA STITCH LINES IN ILLUSTRATION	DWM
TOLERANCES:		DATE	REVISION	BY
FRACTIONS	+/-	U. S. DEPT. OF AGRICULTURE FOREST SERVICE TECHNOLOGY & DEVELOPMENT CENTER MISSOULA, MONTANA		
DECIMALS	+/-			
ANGLES	+/-			
DIMENSIONS ARE IN INCHES BREAK SHARP EDGES		TITLE		
DRAWN	MUCCI	HELICOPTER OPERATIONS HARNESS TETHER & TETHER ATTACHMENT		
DESIGNED	JACKSON			
CHECKED	JACKSON			
APPROVED	JACKSON			
SCALE	NONE			
DATE	FEB 2002	SHEET	1 OF 1	MTDC- 993