

**INSTRUCTIONS FOR CONTINUED AIRWORTHINESS
AND EQUIPMENT MAINTENANCE MANUAL
FOR Bell 212/ 412 CARGO NET/TROOP SEAT**

INSTRUCTIONS FOR CONTINUED AIRWORTHINESS

FOR

STC No. SR09485RC

ON

BELL 212/412

REPORT NUMBER

HF-412-ICA-CARGO NET-01

HELIFAB

1318 SMEDE HWY.

BROUSSARD, LA 70518

THIS MANUAL IS PREPARED TO PROVIDE INFORMATION, INSTRUCTIONS FOR CONTINUED AIRWORTHINESS, MAINTENANCE INSTRUCTIONS AND REPAIR PROCEDURES FOR EQUIPMENT MANUFACTURED BY HELIFAB THAT MAY BE INSTALLED. ENSURE THAT THIS MANUAL IS USED FOR ONLY HELIFAB EQUIPMENT.

**INSTRUCTIONS FOR CONTINUED AIRWORTHINESS
AND EQUIPMENT MAINTENANCE MANUAL
FOR Bell 212/ 412 CARGO NET/TROOP SEAT**

TABLE OF CONTENTS

<u>ITEM</u>	<u>PAGE</u>
TITLE PAGE	1
TABLE OF CONTENTS	2
REVISION STATUS and CONTROL LOG	3
LIST OF ACTIVE PAGES	3
 Chapter 1	
- INTRODUCTION	
1.1 General Product Information	4
1.2 Scope of ICA	4
1.3 Precautions	4
1.4 Abbreviation	5
1.5 Scope of the aircraft maintenance manual	5
1.6 General	6
1.7 Consumable Materials	6
1.8 Special Tools	6
 Chapter 2-	
AIRWORTHINESS LIMITATIONS	
2.1 Time Change Items	7
 Chapter 3-	
TIME LIMITS/INSPECTIONS	
3.1 Overhauls-Time Limits	7
3.2 Conditional Inspections after Operational Incidents	7
3.3 Preflight Check-Equipment	7
3.4 100 Hour and Annual Inspection	8
 Chapter 4-	
GENERAL DESCRIPTION	
4.1 Description	9
 Chapter 5-	
INSTALLATION INSTRUCTIONS	
5.1 Installation	16
5.2 Removal	16
5.3 Troubleshooting	21
5.4 Cleaning	22
5.5 Repair	22
5.6 Placards and Decals	22
 Chapter 6 -	
WEIGHT AND BALANCE	
6.1 Weight and Balance	26
	Table and Figures
Table 1	10
Figure 1	12
Figure 2 thru 4	13
Figure 5 thru 6	14
Figure 7 thru 8	15
Figure 9 thru 10	17
Figure 11	19
Figure 12	20
Figure 13 thru 14	23
Figure 14	24
Figure 15	25

INSTRUCTIONS FOR CONTINUED AIRWORTHINESS
AND EQUIPMENT MAINTENANCE MANUAL
FOR Bell 212/ 412 CARGO NET/TROOP SEAT

REVISION STATUS AND CONTROL LOG

REV #	DESCRIPTION OF CHANGE	DATE ISSUED	DATE INSERTED	BY
IR	ORIGINAL	9/06/2006	9/06/2006	MSE
A	TROOP SEAT ADDITION	07/30/2010	07/30/2010	KDS
B	ADDITION OF NEW PN NET	08/03/2012	08/03/2012	KDS

LIST OF EFFECTIVE PAGES

PAGE	REVISION #	DATE
1 THRU 14	IR	9/06/2006
1 THRU 23	A	07/30/2010
1 THRU 26	B	08/03/2012

INSTRUCTIONS FOR CONTINUED AIRWORTHINESS
AND EQUIPMENT MAINTENANCE MANUAL
FOR Bell 212/ 412 CARGO NET/TROOP SEAT

CHAPTER 1 - INTRODUCTION

1.1 General Product Information

HELIFAB's Cabin Area Cargo Net / Troop Seat installation installs the cargo net, which secures cargo in an area to the left or right side of the aft cabin transmission pylon when the manufacturer's auxiliary fuel tanks are not installed. Bell Helicopter Troop Seats can also be installed in conjunction with the cargo net when using the applicable installation kit.

The modification installs a support pole which provides vertical support and shape for the cargo net as well as an installation point for the use of Bell Helicopter troop seats. The cargo net is secured to the support pole by four footman loops, and is secured to the aircraft by eyebolts that are installed in the transmission pylon wall and aft outboard bulkhead using the manufacturer installed nutplates. The support pole is secured to existing tie down stud fittings located in the cabin floor and cabin roof.

1.2 Scope of ICA

The purpose of these Instructions for Continued Airworthiness (ICA) and Equipment Maintenance Manual (EMM), is to provide necessary information to maintain, inspect, repair, or replace the equipment. Maintenance personnel should be thoroughly familiar with standard abbreviation contained herein, any specific abbreviation or acronym contained can be found in the document text with the full meaning.

1.3 Precautions

The following precautions are used throughout this manual and are defined as follows:

WARNING IS USED WHEN UNQUALIFIED PERFORMANCE OR NEGLECT OF INSTRUCTIONS MAY LEAD TO INJURIES OR DEADLY ACCIDENTS.

CAUTION IS USED WHEN UNQUALIFIED PERFORMANCE OR NEGLECT OF INSTRUCTIONS MAY LEAD TO EQUIPMENT DAMAGE

NOTE IS USED WHEN A PARTICULAR ITEM NEEDS TO BE EMPHASIZED

INSTRUCTIONS FOR CONTINUED AIRWORTHINESS
AND EQUIPMENT MAINTENANCE MANUAL
FOR Bell 212/ 412 CARGO NET/TROOP SEAT

1.4 Abbreviations

EMM	Equipment Maintenance Manual
ICA	Instructions for Continued Airworthiness
HF	Helifab, Inc.
MIL	US Military Specification
N/C	No Change
TSN	Time since New
FH	Flight Hours
Mo.	Months
Y	Years
N/P	Not Provided

1.5 Scope of the aircraft maintenance manual.

A The equipment maintenance manual HF-412-ICA-CARGO NET-01 describes the required procedures for maintaining continued airworthiness for the Cabin Area Cargo Net / Troop Seat installation.

B. Changes to the Equipment Maintenance Manual:

(1) It is the responsibility of the owner/ operator that only the current issue of the Equipment Maintenance Manual applicable to the installation is used. Requests for the current revision of the ICA should be made to:

Address:
Helifab, Inc.
1318 Smede Hwy.
Broussard, La
70518

Telephone: (337)364-4357
Website: www.arrowaviationco.com

- (2) Changes to the equipment maintenance manuals are to be incorporated.
- (3) Changes are identified as follows:
- (a) Revised or extended text, inserted pages with new text contents or new figures are identified with black marginal bars or referenced symbols.
 - (b) When text is relocated, resulting possibly in a renumbering of pages or task, or in case of printing error corrections, no markings are provided.
 - (c) Changed pages are provided with the issue date of the change.

INSTRUCTIONS FOR CONTINUED AIRWORTHINESS
AND EQUIPMENT MAINTENANCE MANUAL
FOR Bell 212/ 412 CARGO NET/TROOP SEAT

- (4) Equipment manufacturer's manuals;

Upon initial installation of the HELIFAB, Inc. Cabin Area Cargo Net / Troop Seat, HELIFAB, Inc. will provide any installation or operators manuals that are included with the purchase of the new equipment.

1.6 General

- A. Special tools are defined in the text as necessary.
B. Torque Values. Unless specified otherwise, the following torques will be used.

<u>Size</u>	<u>Type</u>	<u>Torque</u>
1/4 – 28	Bolt	50-70 in-lbs
1/4 – 28	Eyebolt	Hand tight
10 – 32	Screw	20-25 in-lbs

1.7 Consumable Materials

- A. Explanation

Only Consumable materials noted throughout this manual are to be used. HELIFAB can be contacted to approve alternate or equivalent materials.

1.8 Special Tools

No special tools are required for the installation or removal of the Cargo Net / Troop Seat installation.

INSTRUCTIONS FOR CONTINUED AIRWORTHINESS
AND EQUIPMENT MAINTENANCE MANUAL
FOR Bell 212/ 412 CARGO NET/TROOP SEAT

CHAPTER 2 - AIRWORTHINESS LIMITATIONS

2.1 Time Change Items

There are no airworthiness limitations associated with this type design change.

The Airworthiness Limitations section is FAA approved and specifies maintenance required under 14 CFR Secs. 43.16 and 91.403 unless an alternative program has been FAA approved.

CHAPTER 3 –TIME LIMITS/INSPECTIONS

3.1 Overhauls - Time Limits

There are no overhauls or time limits associated with this type design change.

3.2 Conditional Inspections after Operational Incidents

- A. After any operational incident involving hard landings, sudden stoppage of the drive train or water immersion, the system must not be operated unless all requirements, inspections and overhauls are performed in accordance with Chapter 3 of this EMM.
- B. Notification of incident should be made to the STC holder for additional information and possible further evaluation.

STC Holder:

Helifab, Inc.
1318 Smede Hwy.
Broussard, La
70518

Telephone: (337)364-4357

Website: www.arrowaviationco.com

3.3 Preflight Check - Equipment

- A. The preflight check shall be accomplished by a qualified technician or pilot.

INSTRUCTIONS FOR CONTINUED AIRWORTHINESS
AND EQUIPMENT MAINTENANCE MANUAL
FOR Bell 212/ 412 CARGO NET/TROOP SEAT

- B. System Check: Installed equipment

Interior

Standard interior inspections should be performed IAW the applicable section of the Bell helicopter flight manual.

3.4 100 Hour and Annual Inspection

- A. This inspection is to be performed by a qualified technician.
- B. In conjunction with this inspection a complete preflight inspection must be accomplished in accordance with Section 3.3.
- C. All inspections must be recorded in the rotorcraft records IAW 14 CFR Part 43

INSPECTION TASK DESCRIPTION	
1.	Inspect eyebolts for security and condition.
2.	Inspect Keepereed hooks for condition and spring keeper for proper operation. Replace net if end fittings are excessively pitted or corroded, cracked, distorted or broken.
3.	Inspect netting for wear and condition of stitching Replace the net if the following conditions exist: <ul style="list-style-type: none"> a) The length of an edge cut exceeds the web thickness. b) The penetration of abrasion exceeds 15% of the webbing thickness. c) Abrasion occurs on both sides of the webbing and the sum of the abrasion on both sides exceeds 15% of the webbing thickness d) The identification tags are unreadable. e) Broken or worn stitching
ADDITIONAL INSTRUCTIONS FOR TROOP SEATS (IF INSTALLED)	
4.	Inspect troop seat attachment brackets, support pole, and included hardware for proper operation and condition. Replace any parts that are excessively pitted or corroded, cracked, distorted or broken.
5.	Inspect for damage to protective coatings and for corrosion products. Replace damaged protective coatings and remove corrosion using standard practices.
6.	Inspect troop seats in accordance with manufacturer's service instructions
7.	Return aircraft to service and make appropriate entries in aircraft log book

INSTRUCTIONS FOR CONTINUED AIRWORTHINESS
AND EQUIPMENT MAINTENANCE MANUAL
FOR Bell 212/ 412 CARGO NET/TROOP SEAT

CHAPTER 4 – GENERAL DESCRIPTION

4.1 Description:

The 212/412 Cargo Net / Troop Seat system consists of the cargo net, support pole, troop seat attachment brackets, and related hardware (Table 1). The function of the system is to provide an area of secured cargo within the cabin while maintaining the ability to install Bell Helicopter troop seats.

The modification installs the Cabin area cargo net, which secures cargo in an area to the left or right side of the aft cabin transmission pylon when the manufacturer's auxiliary fuel tanks are not installed. Optional installation kits allow for the installation of the Bell Helicopter troop seats in conjunction with the Cargo Net. There are four cargo net installation kits as defined below:

Installation Part Number 2550-01-01: Cargo net for installation with soft interior trim blankets. Not compatible with troop seat installation.

Installation Part Number 2550-01-02: Cargo net for installation with hard plastic interior trim. Not compatible with troop seat installation.

Installation Part Number 2550-01-03: Cargo net for installation with soft interior trim blankets. Compatible with troop seat installation.

Installation Part Number 2550-01-04: Cargo net for installation with hard plastic interior trim. Compatible with troop seat installation.

HELIFAB's Cabin Area Cargo Net installation in Figure 1 shows the location of the installed cargo net on the right hand side of the aircraft. The installation on the left hand side is identical except for reorientation of the net to the support pole footman loops.

HELIFAB'S Cabin Area Cargo Net / Troop Seat installation includes the components shown in table 1.

INSTRUCTIONS FOR CONTINUED AIRWORTHINESS
AND EQUIPMENT MAINTENANCE MANUAL
FOR Bell 212/ 412 CARGO NET/TROOP SEAT

**Table 1
Parts List**

Item No.	Part Number	Nomenclature	Installation PN 2550-01-01	Installation PN 2550-01-02	Installation PN 2550-01-03	Installation PN 2550-01-04	Note
1	2550-01-0001	Cargo Net					2
2	2550-01-0002	Cargo Net Support Pole					1
3	2550-01-0008	Eye Bolt (1”)					
4	NAS43DD4-24FC	Spacer					
5	2550-01-0007	Eye Bolt (1 ½”)					
6	NAS43DD4-16N	Spacer					
7	2550-01-002	Eyebolt/Spacer					
8	2550-01-0003	Fixed Adaptor					
9	MS22034-2	Adaptor					
10	AN4-21A	Bolt					
11	AN960PD416	Washer					
12	MS21042L4	Nut					
13	90-009-4	Footman Loop					
14	AN509-10R	Screw					
15	AN960-PD10L	Washer					
16	2550-01-0004	Adjustable Adaptor					
17	AN4-17A	Bolt					
18	2550-01-0009	Eye Bolt (½”)					
19	NASD6604-11	Bolt					
20	NAS43HT4-8	Spacer					
21	2550-02-0001	Cargo Net Support Pole					1
22	2550-02-003	Cushion Assm.					
23	2550-02-0002	Lower Seat Support					
24	MS21042L4	Nut (N/P)					
25	AN4-7A	Bolt (N/P)					
26	NAS1354DS7S15D	Pin (N/P)					
27	205-070-714-001	Fitting (N/P)					
28	NAS1455C00	Chain (N/P)					
29	MS27039-1-11	Screw					
30	205-070-742-001	Block (N/P)					
31	205-070-716-001	Block (N/P)					

INSTRUCTIONS FOR CONTINUED AIRWORTHINESS
AND EQUIPMENT MAINTENANCE MANUAL
FOR Bell 212/ 412 CARGO NET/TROOP SEAT

**Table 1 (Continued)
Parts List**

Item No.	Part Number	Nomenclature	Installation PN 2550-01-01	Installation PN 2550-01-02	Installation PN 2550-01-03	Installation PN 2550-01-04	Note
32	205-072-712-003	Spring (N/P)					
33	205-072-710-001	Fitting (N/P)					
34	205-070-743-001	Seat Support (N/P)					
35	AN4-10A	Bolt (N/P)					
36	205-070-742-001	Block (N/P)					
37	MS20470AD-4-X	Rivet					
38	2550-02-0006	Cargo Net					2,3
39	AN960-PD10	Washer					

Note:

- (1) Support Pole P/N 2550-02-0001 may be used as an alternate for support pole P/N 2550-01-0002
- (2) Cargo Net P/N 2550-01-0001 has been superseded by cargo net PN 2550-02-0006. P/N 2550-02-0006 may be used as an alternate for cargo net P/N 2550-01-0001
- (3) Cargo Net P/N 2550-02-0006 has been superseded by cargo net PN 2550-02-0010. P/N 2550-02-0010 may be used as an alternate for cargo net P/N 2550-02-0006.

INSTRUCTIONS FOR CONTINUED AIRWORTHINESS
AND EQUIPMENT MAINTENANCE MANUAL
FOR Bell 212/ 412 CARGO NET/TROOP SEAT

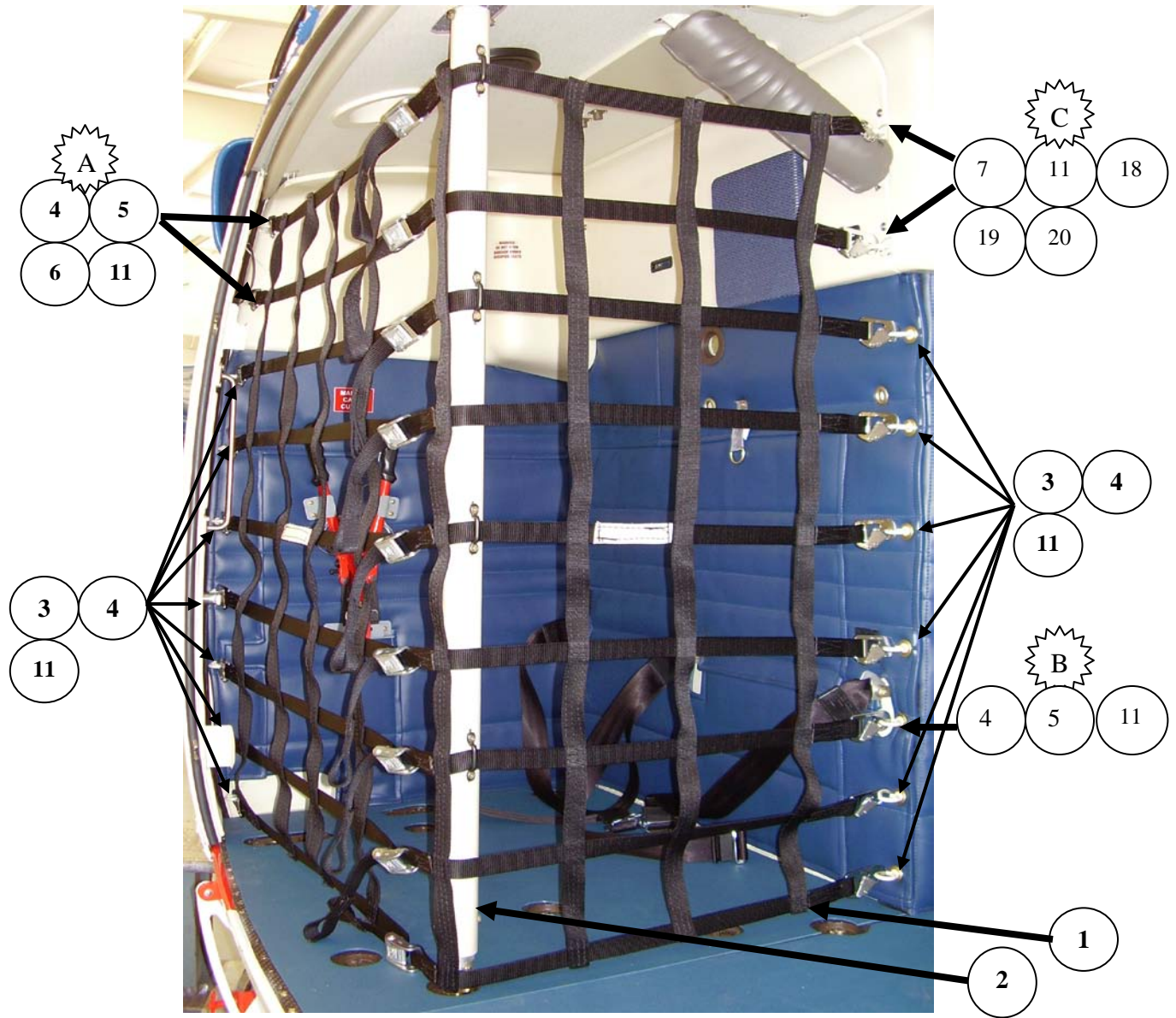


Figure 1

Notes:



Items 4, 5, & 6 are used only with Plastic Interior panels. Replace Item # 5 with item # 3 and remove item # 6 when soft interior trim blankets are installed.



Item 5, P/N 2550-01-0007, Eye Bolt (1 1/2") installed this position on all installations.



Items 7, 18, 19, & 20 are used only with Plastic Interior panels. Replace with Items 4 & 5 when soft interior trim blankets are installed.

Note Provisions in the Interior sound proofing blankets must be made to prevent the eyebolts/spacers from making contact with the fuselage structure.

INSTRUCTIONS FOR CONTINUED AIRWORTHINESS
AND EQUIPMENT MAINTENANCE MANUAL
FOR Bell 212/ 412 CARGO NET/TROOP SEAT

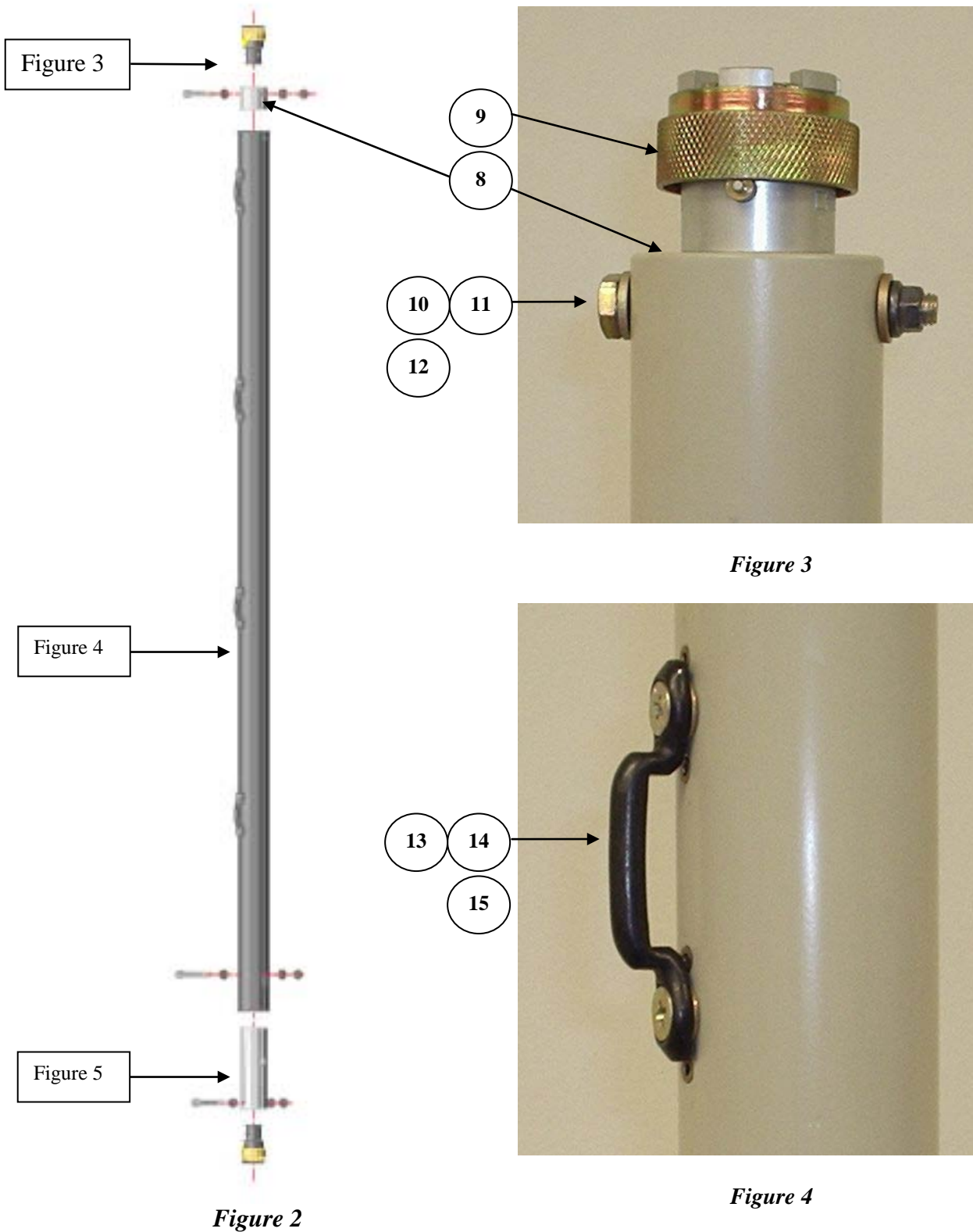


Figure 3

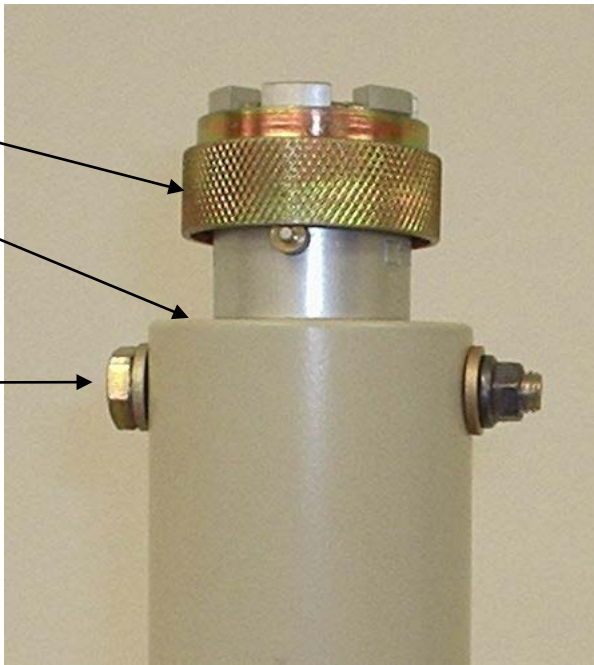


Figure 3

Figure 4



Figure 4

Figure 5

Figure 2

INSTRUCTIONS FOR CONTINUED AIRWORTHINESS
AND EQUIPMENT MAINTENANCE MANUAL
FOR Bell 212/ 412 CARGO NET/TROOP SEAT

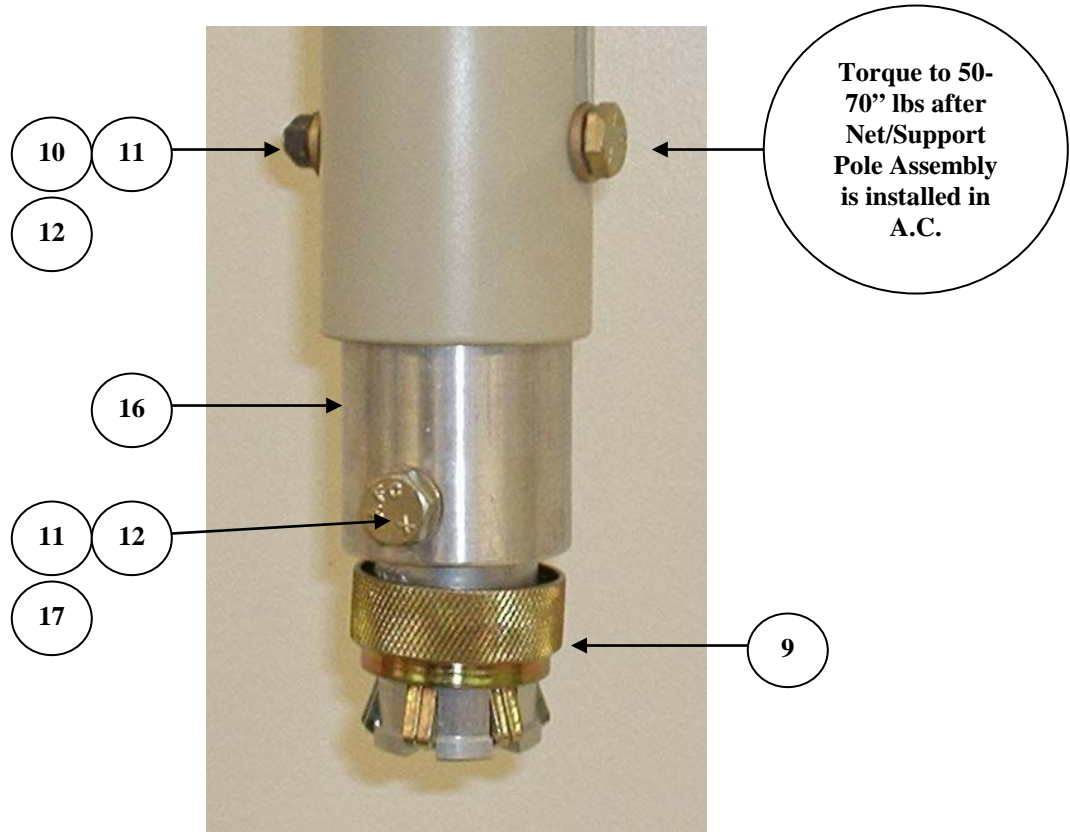


Figure 5

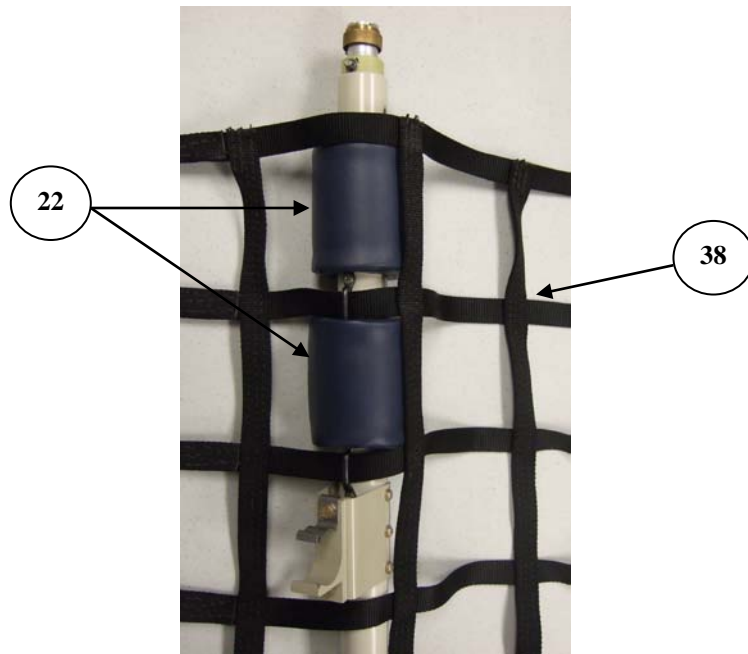


Figure 6

INSTRUCTIONS FOR CONTINUED AIRWORTHINESS
 AND EQUIPMENT MAINTENANCE MANUAL
 FOR Bell 212/ 412 CARGO NET/TROOP SEAT

Troop Seat Installation Fittings

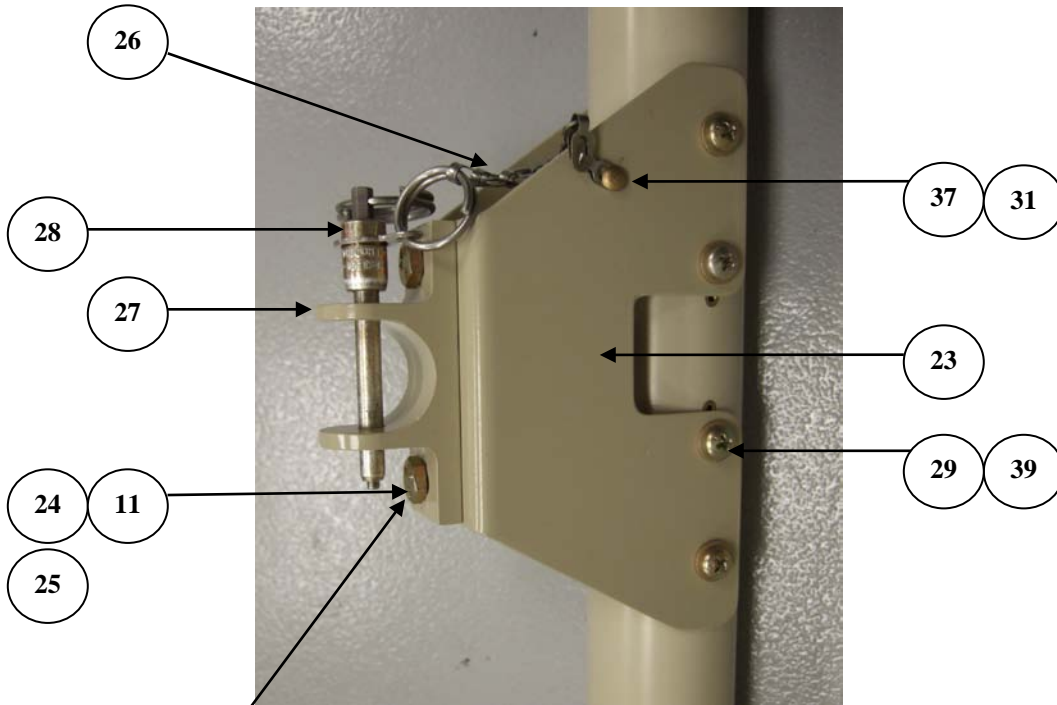


Figure 7

Torque 50 - 70" lbs

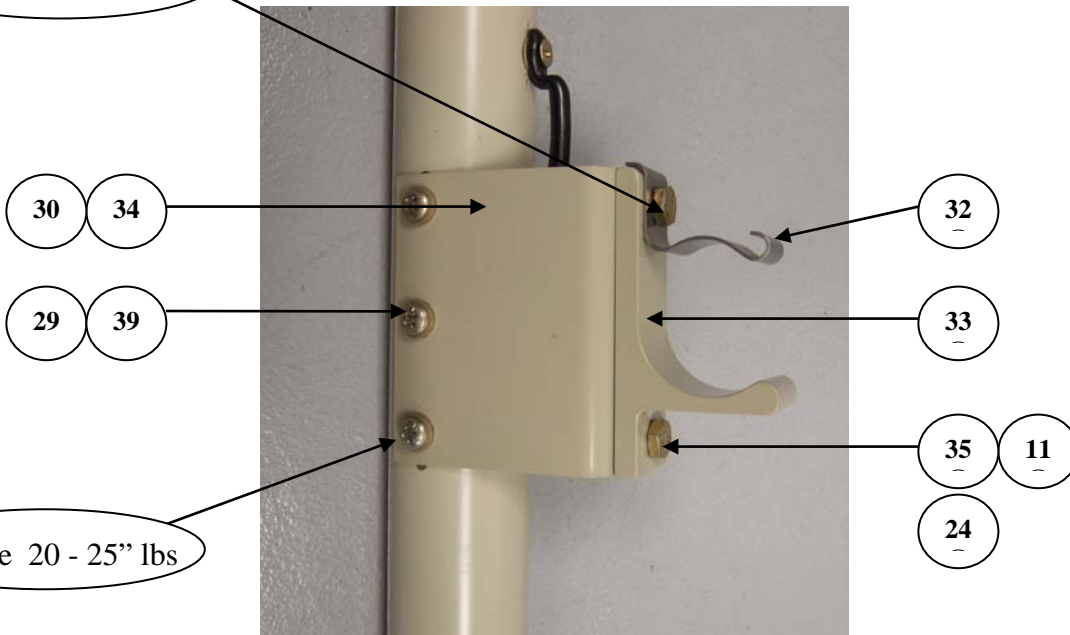
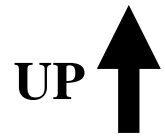


Figure 8

Torque 20 - 25" lbs

INSTRUCTIONS FOR CONTINUED AIRWORTHINESS
AND EQUIPMENT MAINTENANCE MANUAL
FOR Bell 212/ 412 CARGO NET/TROOP SEAT

CHAPTER 5 – INSTALLATION INSTRUCTIONS

5.1 Removal

Cargo Net Assembly

- Release cam buckles as required to provide enough slack to release keepered hooks from the eyebolts. Remove cargo net/ support pole assembly from the aircraft. When eyebolts and hardware are removed, tag and mark their installation location for ease of reinstallation.

Note: Eyebolts may remain installed for later reinstallation of cargo net if they do not interfere with the installation of manufactures optional passenger seats or auxiliary fuel tanks.

Removal if Troop Seats are Installed

- Remove troop seats in accordance with Bell Helicopter instructions
- Follow previous instructions regarding removal of cargo net assembly.

Removal of Cargo Net Only. (Troop Seats and Support Pole Remain Installed)

- Follow previous removal instructions.
- Separate cargo net (P/N 2550-02-0006 , Item 38) from support pole by removing the footman loops and lower seat attachment bracket (if installed).
- The support pole and troop seat should then be reassembled and reinstalled IAW the installation instructions of this document.

Warning: If two man well seats are to be used the nylon cargo net must be removed.

5.2 Installation

Cargo Net Only: Cargo Net Installation Kit (P/N 2550-01-01), Cargo Net Installation Kit for use with Interior Trim Kit (P/N 2550-01-02), Cargo Net\Troop Seat Installation Kit (P/N 2550-01-03), or Cargo Net\Troop Seat Installation Kit for use with Interior Trim Kit (P/N 2550-01-04)

References:	Table 1 and Figures 1 through 12
Special Tools	None
Consumables Materials:	None

- Prior to installing eyebolts, ensure nutplates in the transmission pylon wall and aft outboard bulkheads are clean and function properly.

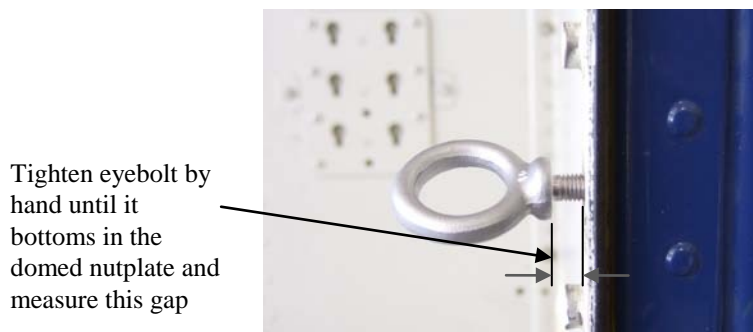
**INSTRUCTIONS FOR CONTINUED AIRWORTHINESS
AND EQUIPMENT MAINTENANCE MANUAL
FOR Bell 212/ 412 CARGO NET/TROOP SEAT**

- Install eyebolts, figure 1, into in the transmission pylon wall and aft outboard bulkhead manufacturer installed nutplates. Eyebolts are to be oriented in the horizontal position for proper installation of the cargo net. Eyebolts may be shimmed by adding AN960PD-416 washers, or NAS43DD4-16N (Item #6) or NAS43DD4-24FC (item # 4) spacers as required to obtain the necessary orientation, prevent bottoming of the eyebolt within the domed nutplates, and ensure proper thread engagement in nutplate while allowing interior trim clearance.

To ensure proper thread engagement of the eyebolts, use the following steps:

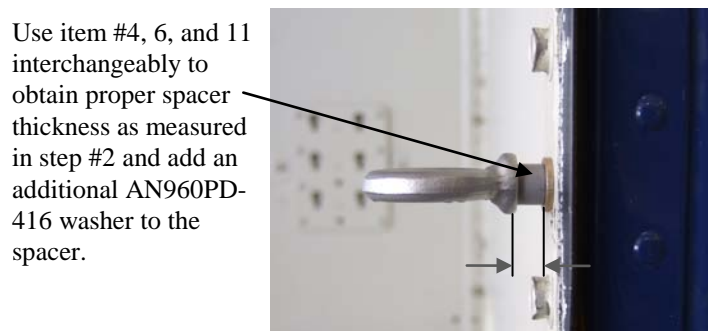
- 1) Insert the eyebolts into the nutplates and tightening by hand until it contacts the bottom of the domed nutplates.
- 2) Measure the gap between the bottom of the eyebolt and the aircraft structure (see Figure 9). The spacer used under the eyebolt should be the same thickness as the value obtained plus an additional AN960PD-416 washer should be added to the spacer thickness.

Figure 9



- 3) Remove the eyebolt, place the spacer plus an additional AN960PD-416 washer underneath the eyebolt, and hand tighten to obtain a horizontal orientation. (See figure 10)

Figure 10



INSTRUCTIONS FOR CONTINUED AIRWORTHINESS
AND EQUIPMENT MAINTENANCE MANUAL
FOR Bell 212/ 412 CARGO NET/TROOP SEAT

Note: Eye bolt spacer/nutplate assemblies, figure 1 (item # 7), and NAS43DD4-16N (item # 6) spacers are used only when hard plastic trim is installed and will be provided in the 2550-01-02 and 2550-01-04 installation kits.

Note: A 1 ½ ” eyebolt and spacer (item # 4 and 5) is installed at location shown in figure 1 note B on all installations.

Note: Item #4, #6 and #11 may be used interchangeably to attain proper shim of eyebolts.

- Install cargo net/ support pole assembly by connecting between the existing tie down stud fittings located in the cabin floor and cabin roof (fwd stud) at fuselage station 132 and BL39.5. Tighten bolt and nut, figure 5 items # 10 and # 12.

Note: The Support pole assembly (P/N 2550-01-0002) for kit P/N 2550-01-01 and 2550-01-02 must be installed with item # 16, adjustable adaptor, down (see Figure 12). The Support pole assembly (P/N 2550-02-0001) for kit P/N 2550-01-03 and 2550-01-04 must be installed with item # 16, adjustable adaptor, up (see Figure 11). (The support pole assembly (P/N 2550-02-0001) can be distinguished from P/N 2550-01-0002 support pole by the 14 troop seat fitting attachment holes on the sides of P/N 2550-02-0001 support pole. Support Pole P/N 2550-02-0001 may be used as an alternate for support pole P/N 2550-01-0002.

INSTRUCTIONS FOR CONTINUED AIRWORTHINESS
AND EQUIPMENT MAINTENANCE MANUAL
FOR Bell 212/ 412 CARGO NET/TROOP SEAT

Figure 11

Support Pole (P/N 2550-02-0001) Installed
with Adjustable Adaptor Up



Note: When troop seat attachments are not installed on the support pole, install four-teen (14) MS27039-1-11 screws into the four-teen (14) troop seat fitting attachment points in P/N 2550-02-0001 support pole to prevent nutplate damage.

INSTRUCTIONS FOR CONTINUED AIRWORTHINESS
AND EQUIPMENT MAINTENANCE MANUAL
FOR Bell 212/ 412 CARGO NET/TROOP SEAT

Figure 12



- Connect cargo net keeper hooks to eyebolts, and secure net to cargo net support pole using footman loops as shown in figure 1. (Tighten net using adjustment provisions on net)

INSTRUCTIONS FOR CONTINUED AIRWORTHINESS
AND EQUIPMENT MAINTENANCE MANUAL
FOR Bell 212/ 412 CARGO NET/TROOP SEAT

Cargo Net with Troop Seats: Cargo Net/Troop Seat Installation Kit (P/N 2550-01-03) or Cargo Net/Troop Seat Installation Kit for use with Interior Trim Kit (P/N 2550-01-04)

- Remove the topmost footman loop on the support pole and slide on the Cushion assemblies (P/N 2550-02-0002, Typ. 2 places). See figure 6 for cushion orientation.
- Reinstall footman loop and torque screws to values defined in section 1.6 of this manual.
- Follow previous instructions regarding installation of the cargo net assembly.

Note: The support pole assembly (P/N 2550-02-0001) must be installed with item # 16, adjustable adaptor, up.

- Attach lower and upper seat brackets to the support pole. Tighten Bolt and nut , figure 7 & 8, items # 24, # 25, and #35.
- Install troop seats IAW manufacturers installation instructions.

Troop Seats without Cargo Net: Cargo Net/Troop Seat Installation Kit (P/N 2550-01-03) or Cargo Net/Troop Seat Installation Kit for use with Interior Trim Kit (P/N 2550-01-04)

- Follow removal instructions for removing cargo net from the support pole if cargo net is attached to the support pole.
- Reinstall footman loops and seat attachment brackets and torque fasteners to values listed in section 1.6.
- Ensure cushion assemblies (P/N 2550-02-0002) are installed onto cargo net support pole, and install support pole assembly in aircraft by connecting between the existing tie down stud fittings located in the cabin floor and cabin roof (fwd stud) at fuselage station 132 and BL39.5. Tighten bolt and nut, figure 5, items # 10 and # 12.
- Install troop seats IAW manufacturers installation instructions.

Note: Ensure that cushion assemblies are installed on the support pole

Note: The support pole assembly must be installed with item # 16, adjustable adaptor, up

5.3 Troubleshooting

- Loose or improper engagement of installation hardware can be corrected by replacement of defective or worn parts.

INSTRUCTIONS FOR CONTINUED AIRWORTHINESS
AND EQUIPMENT MAINTENANCE MANUAL
FOR Bell 212/ 412 CARGO NET/TROOP SEAT

5.4 Cleaning – Cargo Net

- A. References: None
- B. Special Tools: None
- C. Consumable Materials: Mild Detergent
- D. Procedure:
 - 1. Wash with a mild detergent.
 - 2. Rinse fresh water.
 - 3. Allow to air dry thoroughly.

5.5 Repair

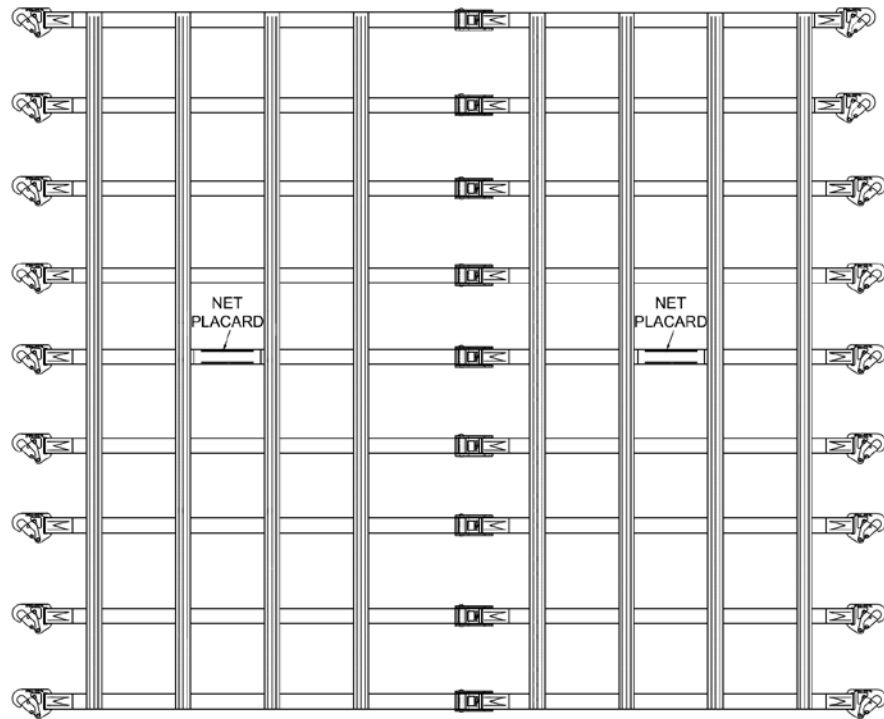
- No repairs other than those that can be accomplished with normal methods or that are called out in this EMM should be attempted.
- Repair to netting is limited to re-stitching worn or broken stitches by appropriately rated personnel.
- Normal repairs would include paint touch up and cleaning. Replacement of defective nutplates must be done in accordance with the applicable airframe manufactures instructions and accepted maintenance practices.

5.6 Placards and Decals

- A. References: Figure 13 thru 15
 - 1) Net Placard P/N 2550-01-0006 , P/N 2550-02-0007 and P/N 2550-02-0011
 - Net placard P/N 2550-01-0006 is for use with cargo net P/N 2550-01-0001. Net placard P/N 2550-02-0007 is for use with cargo net P/N 2550-02-0006. Net placard P/N 2550-02-0011 is for use with cargo net P/N 2550-02-0010. See figure 13 for placard location and figure 14 for placard detail.
 - 2) Placard P/N 2550-01-0010.
 - Placard is for use with all installation kits, and is to be spray painted white on a surface that is within the netted area and must be easily visible. See figure 15 for details.

INSTRUCTIONS FOR CONTINUED AIRWORTHINESS
AND EQUIPMENT MAINTENANCE MANUAL
FOR Bell 212/ 412 CARGO NET/TROOP SEAT

Figure13
Net Placard Locations



INSTRUCTIONS FOR CONTINUED AIRWORTHINESS
AND EQUIPMENT MAINTENANCE MANUAL
FOR Bell 212/ 412 CARGO NET/TROOP SEAT

Figure 14
Net Placard Detail

P/N 2550-01-0001
MAX LOAD-800 LBS

Placard P/N 2550-01-0006

OR

P/N 2550-02-0006
MAX LOAD-400 LBS. W/TROOP SEATS
800 LBS. W/O TROOP SEATS

Placard P/N 2550-02-0007

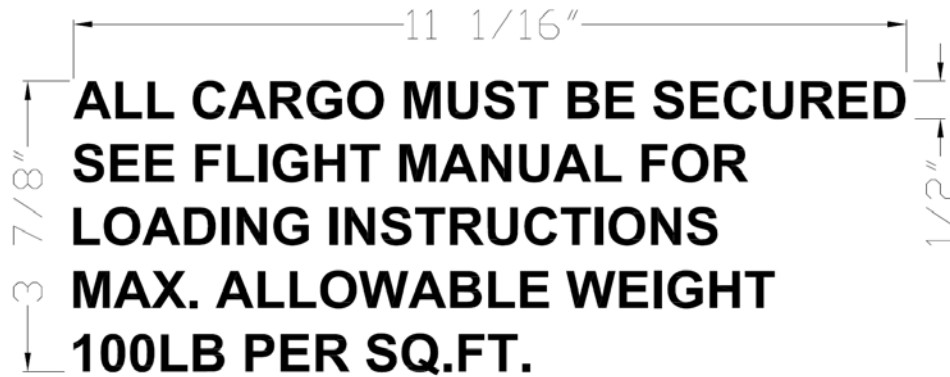
OR

P/N 2550-02-0010
MAX LOAD-400 LBS. W/TROOP SEATS
800 LBS. W/O TROOP SEATS

Placard P/N 2550-02-0011

INSTRUCTIONS FOR CONTINUED AIRWORTHINESS
AND EQUIPMENT MAINTENANCE MANUAL
FOR Bell 212/ 412 CARGO NET/TROOP SEAT

Figure 15
Placard Detail



INSTRUCTIONS FOR CONTINUED AIRWORTHINESS
AND EQUIPMENT MAINTENANCE MANUAL
FOR Bell 212/ 412 CARGO NET/TROOP SEAT

CHAPTER 6 – WEIGHT AND BALANCE

6.1 Weight and Balance

The new empty weight and corresponding C.G. location must be determined and entered in the aircraft permanent records.

Cargo Net Installation Component Weights:

<i>Component</i>	<i>WEIGHT</i>
Support Pole Assembly Without Troop Seat Attachment Hardware	4.5
Support Pole Assembly With Troop Seat Attachment Hardware	5.5
Nylon Cargo Net and Hardware with Chrome Plated Snap Hooks	7.5
Nylon Cargo Net and Hardware with Cadmium Plated Snap Hooks	9.2

Installation of the Cabin Area Cargo Net kit without troop seat installation brackets has the following effect on weight and balance:

	<i>WEIGHT</i>	<i>LONGITUDINAL ARM</i>	<i>MOMENT</i>	<i>LATERAL</i>	<i>MOMENT</i>
Right	+ 12.0	131.0	1572.0	+ 36.0	+ 432
Left	+ 12.0	131.0	1572.0	- 36.0	- 432

Installation of the Cabin Area Cargo Net kit with troop seat attachment hardware has the following effect on weight and balance

	<i>WEIGHT</i>	<i>LONGITUDINAL ARM</i>	<i>MOMENT</i>	<i>LATERAL</i>	<i>MOMENT</i>
Right	+ 13.0	131.0	1703.0	+ 36.0	+ 468
Left	+ 13.0	131.0	1703.0	- 36.0	- 468

Installation of only the Support pole with troop seat attachment hardware (No cargo Net) has the following effect on weight and balance

	<i>WEIGHT</i>	<i>LONGITUDINAL ARM</i>	<i>MOMENT</i>	<i>LATERAL</i>	<i>MOMENT</i>
Right	+ 5.5	131.0	720.5	+ 36.0	+ 198
Left	+ 5.5	131.0	720.5	- 36.0	- 198

Note: Additional Weight and Balance calculations are necessary when actual troop seats are installed. (See applicable troop seat installation instructions for additional weight and balance information).

Note: Cargo nets may be constructed with either chrome plated or cadmium plated keptered hooks. The weight of a cargo net with cadmium plated keptered hooks is 1.7 Lb heavier than a net constructed with chrome plated keptered hooks. All weight and balance calculations shown above are calculated using a net with chrome plated keptered hooks. Recalculate if net with cadmium plated hooks is used.