



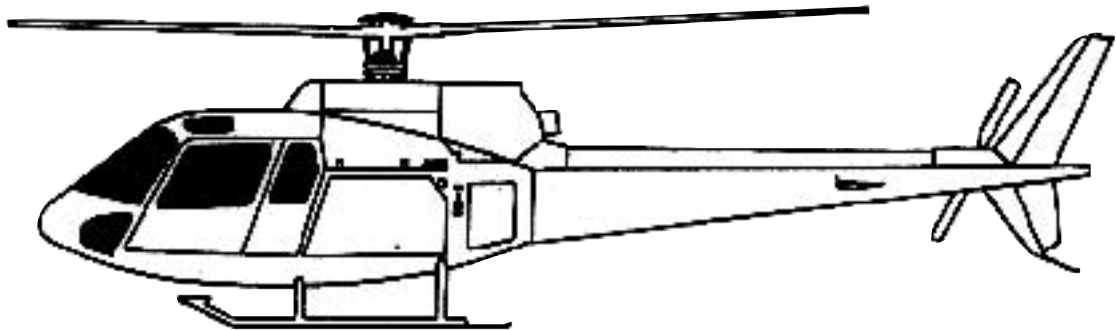
MAJOR MOUNT

ASTAR / TWINSTAR

INSTALLATION MANUAL



Tyler - Major Mount
For Eurocopter AS-350 & AS-355 Series Helicopters
FAA STC # SR00273LA



PLEASE RETURN THIS MANUAL WITH EQUIPMENT

This manual is available for download from our web site.



Tyler Camera Systems 14218 Aetna Street Van Nuys, California 91401 • USA
www.tylermount.com • 800-390-6070 • (818) 989-4420 • FAX (818) 989-0423





MODEL: Major Mount

REPORT #: ICS MJ MT AS INST.7-95

JOB #: A-Star

DATE: 07-17-95

MAJOR MOUNT (MODEL 806)
INSTALLATION MANUAL FOR
ASTAR / TWINSTAR HELICOPTERS

PREPARED BY: N. Tyler

OF PAGES: 10

& TYLER CAMERA'S
 REFERENCE #'S 1, 2 & 3

CHECKED BY: _____

OF DRAWINGS 0

APPROVED BY: _____

Nelson Tyler

 Nelson Tyler

Ref. #1 RFM
 Ref. #2 STC
 Ref. #3 Wght. & Balance

REVISIONS

DATE	PAGES AFFECTED	REVISION LETTER	REVISION	APPROVAL
7-17-95	All	N/C	Original Issue	N.T.
3/29/01	All	A	Addition of Base Frame	
11-11-04	ALL	B	ADDED B3 MODEL	

FIG. 1 - Astar cabin with rear seats stored.
Right Side View



The Major Mount can be installed on either side of the helicopter utilizing the standard method of attachment using Tie Down Straps, or with fasteners using a Base Frame Assembly (which enables quick change-over from one side to the other). This manual shows the right side installation using Straps (Page 6 of 10 through 8 of 10), and left side using a Base Frame (Page 4A of 10 through 4D of 10).

Using the Tie Down Straps, to shoot out the right side door, follow these steps:
Remove right side doors (front & rear). Remove rear seat cushions, fold rear seats upward and remove (existing) rear passenger seat belts.

Before Proceeding...

- Visually inspect all Tiedown straps for chaffing or wear.
- Visually check Tiedown bar for deformity or burrs.
- Visually check Major Mount for signs of damage.

FIG. 2 - Seat Belt Attach Points.
Right Side View



Install 4 “Quick-Rings” (#AS-028) through (existing) helicopter attach rings and tighten.

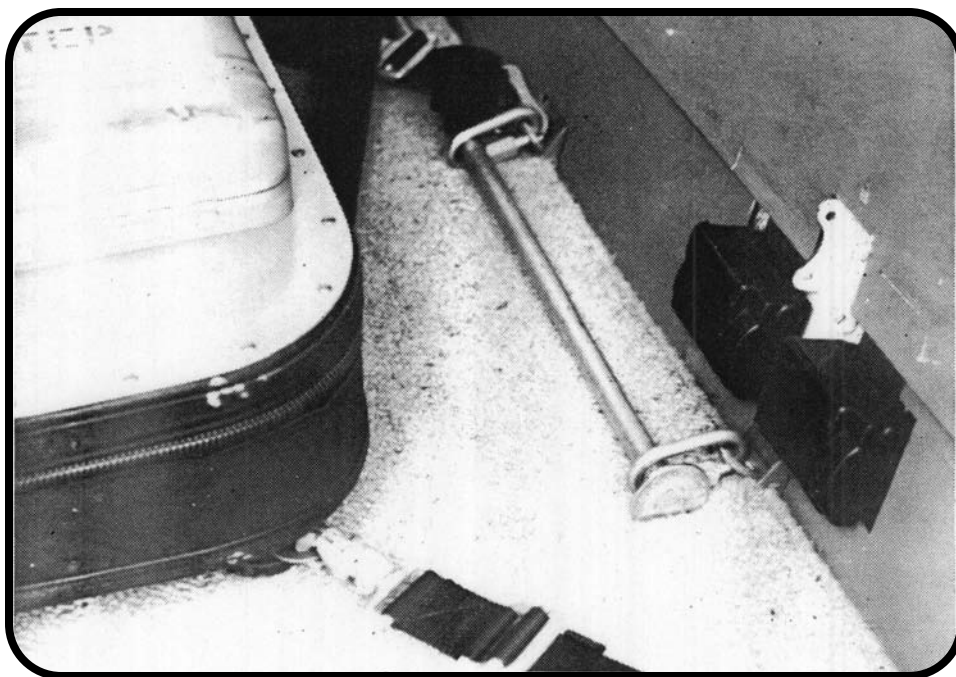


FIG. 3

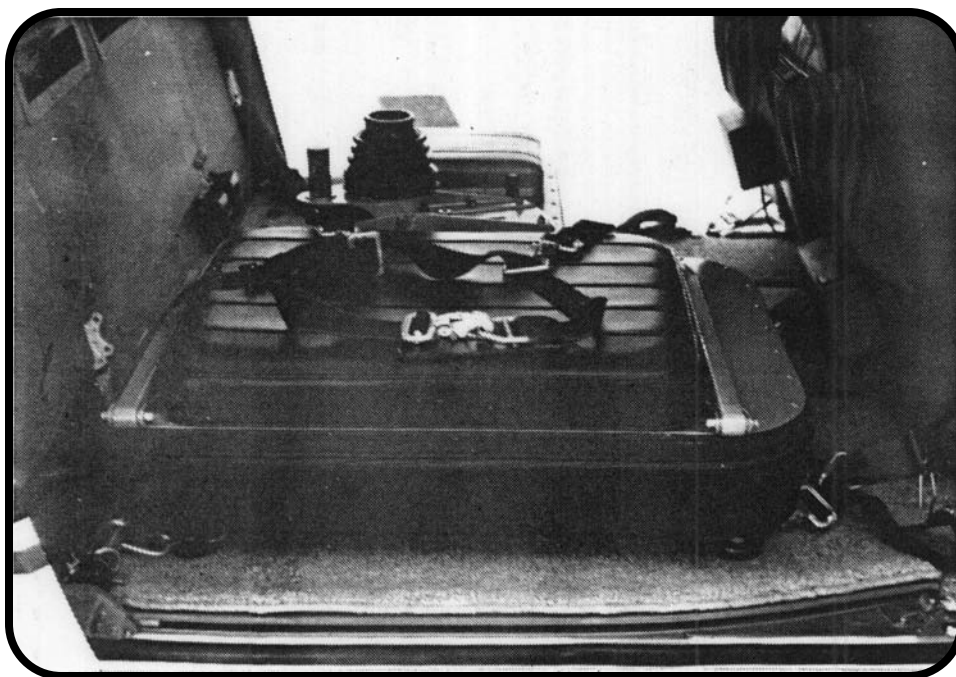
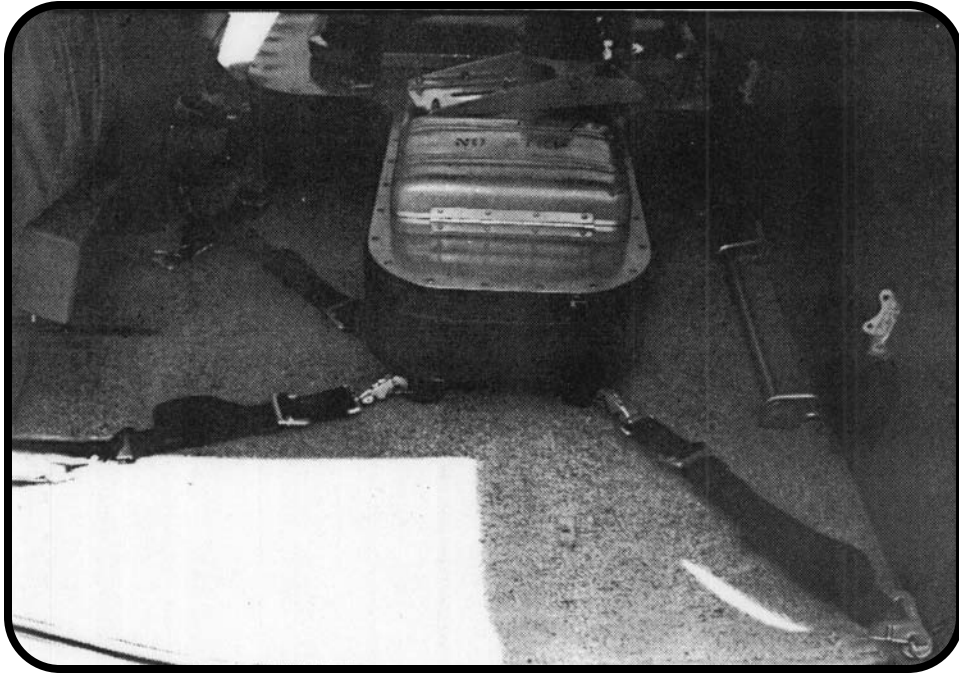


FIG. 3A

Place Camera Platform (HC-152) on helicopter floor area (left rear shown). Slip Tiedown Bar (TCS-1009) through the first two rear bulkhead Quick Links (AS-028), then through the first rear Camera Platform Quick Link, then through the Operator Safety Strap Loop (AS-004). Continue sliding the Tiedown Bar through the forward Camera Platform Quick Link, then through the fourth bulkhead Quick Link. Secure the end of the Tiedown Bar with End Cap (AS-032) and 3/16 bolt and stop nut.

Attach Tiedown Straps to secure Camera Platform as shown in FIG. 3, 3A, 4 and 5.



Attach two (AS-027) Tiedown Straps as shown, from left rear foot-ring on Camera Platform, to left (existing) seatbelt floor attach rings of pilot and co-pilot seats.



Attach two (AS-027) Tiedown Strap as shown, from left front foot-ring on Camera Platform, to left (existing) seatbelt floor attach ring of pilot seat.

**This completes the RIGHT SIDE installation of
the Camera Platform, utilizing the Restraint Straps.**

**Follow instructions on Page 5 of 10
for remainder of Major Mount installation.**

**To install the Camera Platform on the (LEFT SIDE shown)
utilizing the Base Frame Assembly
follow instructions starting on Page 4A of 10.**

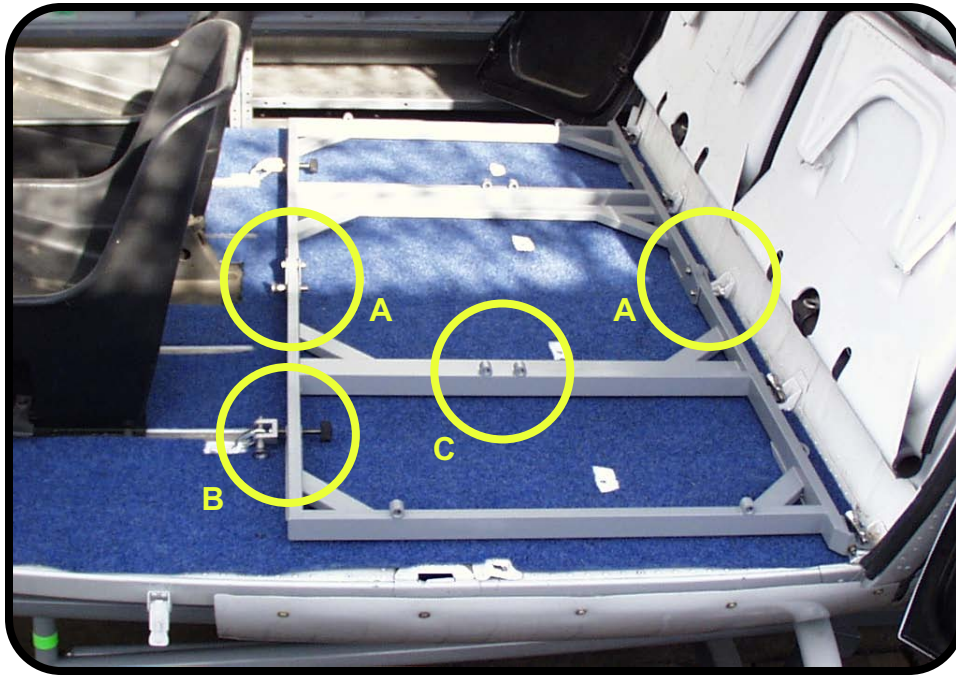


Using the Base Frame Assembly, to shoot out of either side of the helicopter, follow these steps:

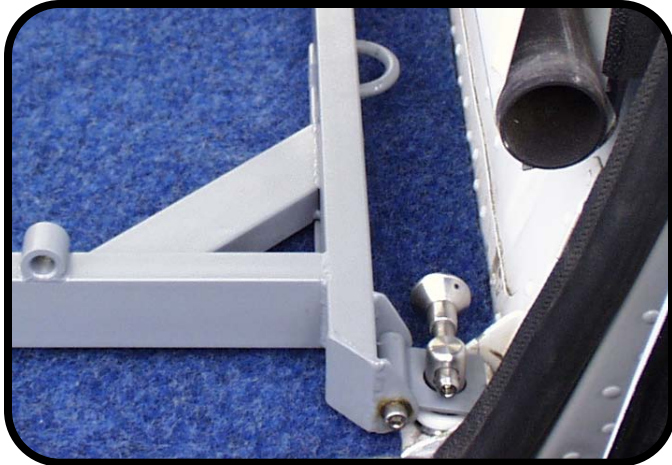
Remove left side doors (front & rear). Remove rear seat cushions, fold rear seats upward and remove (existing) rear passenger seat belts.



Insert four Pin-Studs on the outboard (existing) helicopter attach rings (leave the center attach ring unused).



After unfolding the Base Frame and fastening with two PI-Pins (A), Place the Base Frame Assembly on the floor of the helicopter with the Tensioning Knobs (B) forward, and the PI-Pin Sockets (B) up.



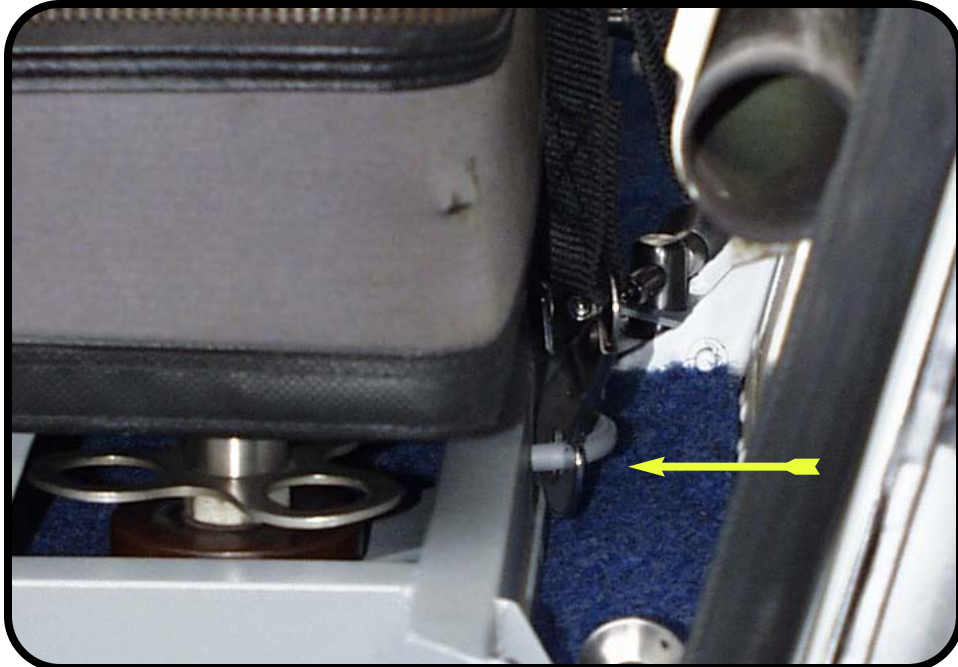
Place each of the four hinging tabs over the Pin-Studs and fasten with PI-Pins.



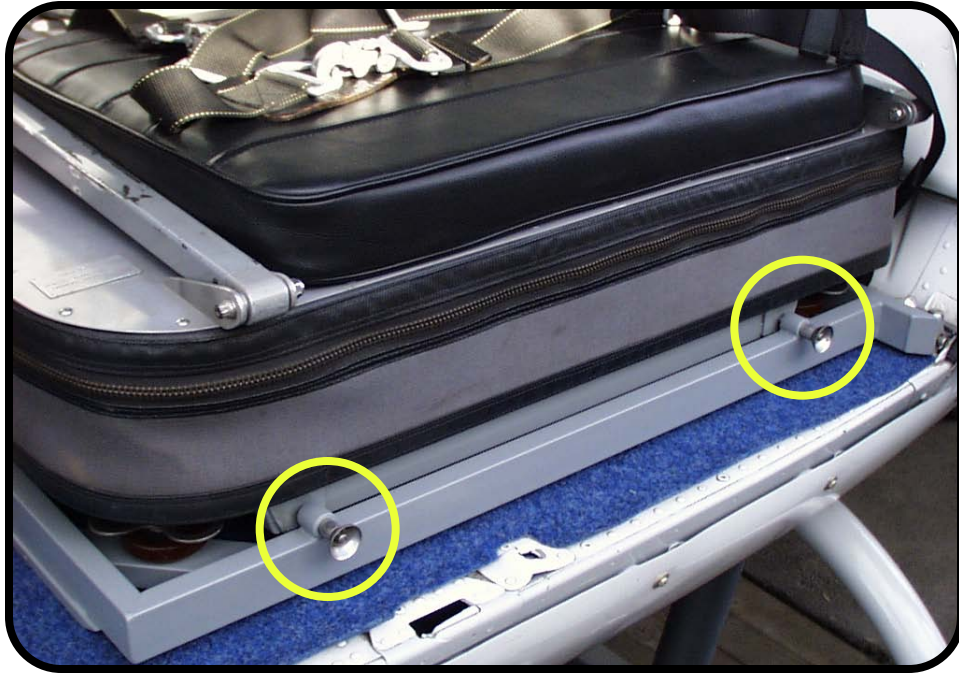
Fasten one or two Quick-Links (depending on carpet thickness) to the outer (existing) seat belt attach points just behind the forward seats. Then fasten the Quick-Links to the Tensioners with PI-Pins (as shown). Tighten the Tensioner Knobs to take up play.



Install Camera Platform onto the Base Frame Assembly.



Attach Secondary Operator Safety Strap to the attach point on the Base Frame near the firewall of the helicopter.



Secure the Camera Platform to the Base Frame Assembly using four PI-Pins, two at the outboard side (above) and two at the inboard side (below).



This completes the LEFT SIDE installation of the Camera Platform, utilizing the Base Frame Assembly.

Follow instructions on Page 5 of 10 for remainder of Major Mount installation.

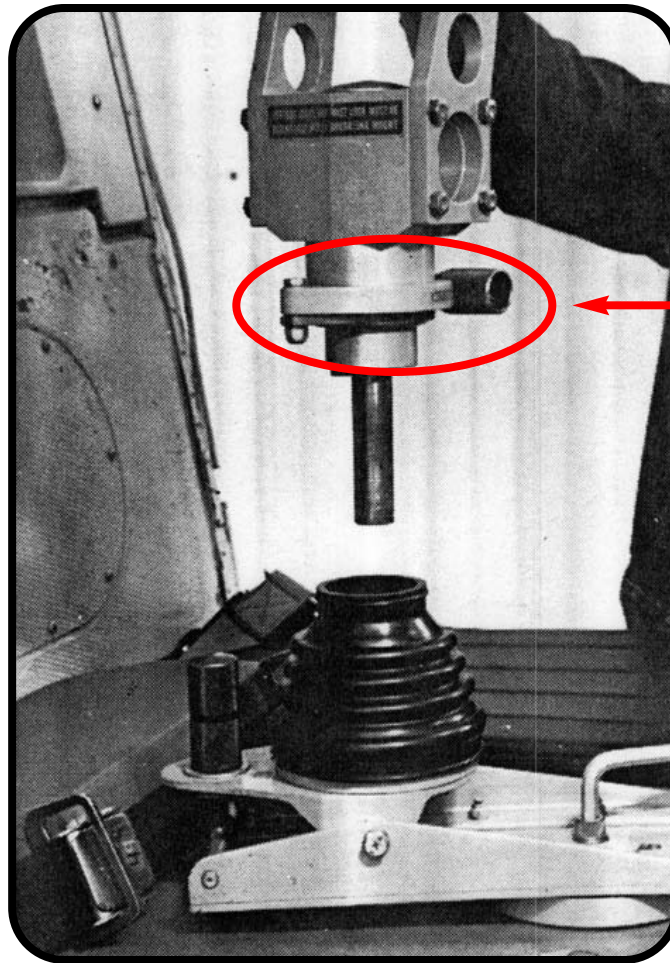
Note: Utilizing the Base Frame Assembly (instead of the Restraint Straps) enables quick change-over from one side to the other.

To quickly change the Camera Platform over to the other side...

Remove the camera package, counterweight and arm assembly, then...

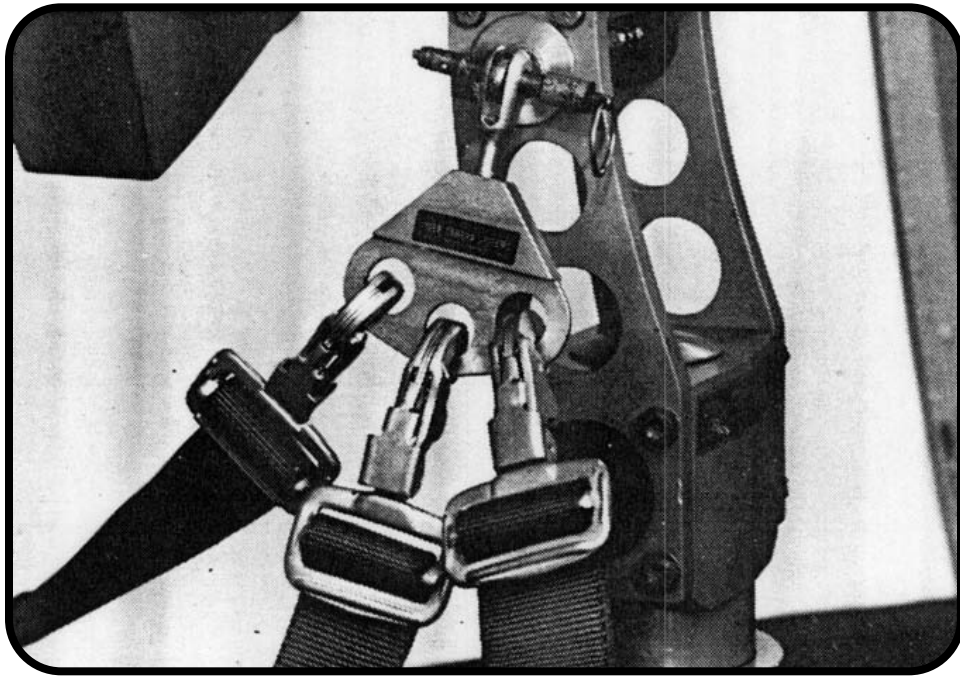
Remove the four PI-Pins (shown on Page 4D of 10), replace the Camera Platform on the opposite side, and re-insert the four PI-Pins.

Then re-attach the camera package, counterweight and arm assembly.

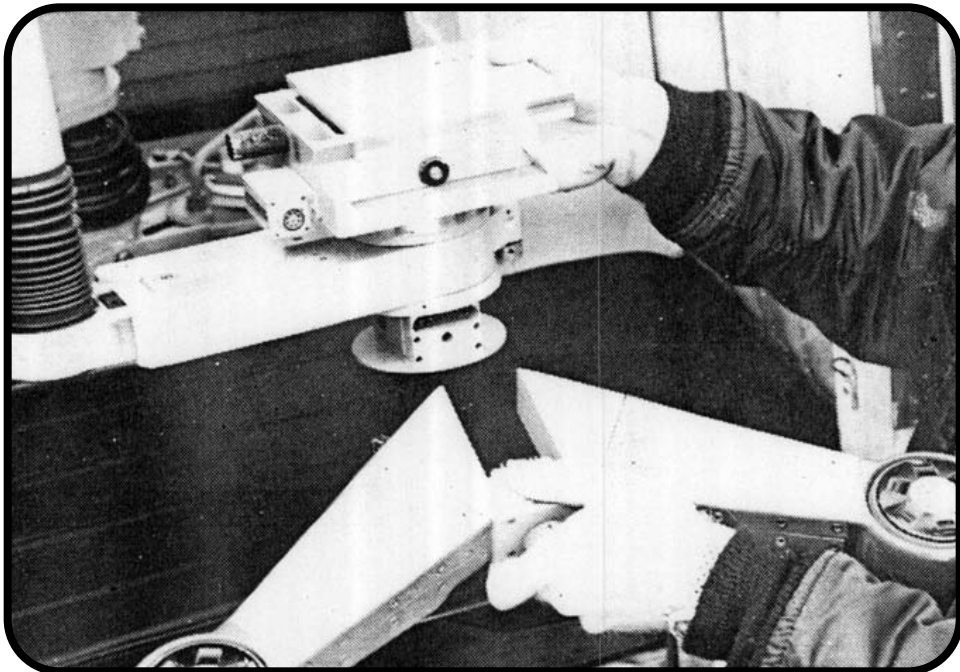


Mast Post Lock:
Locks the Major
Mount Arm in
Yaw (Pan) axis.

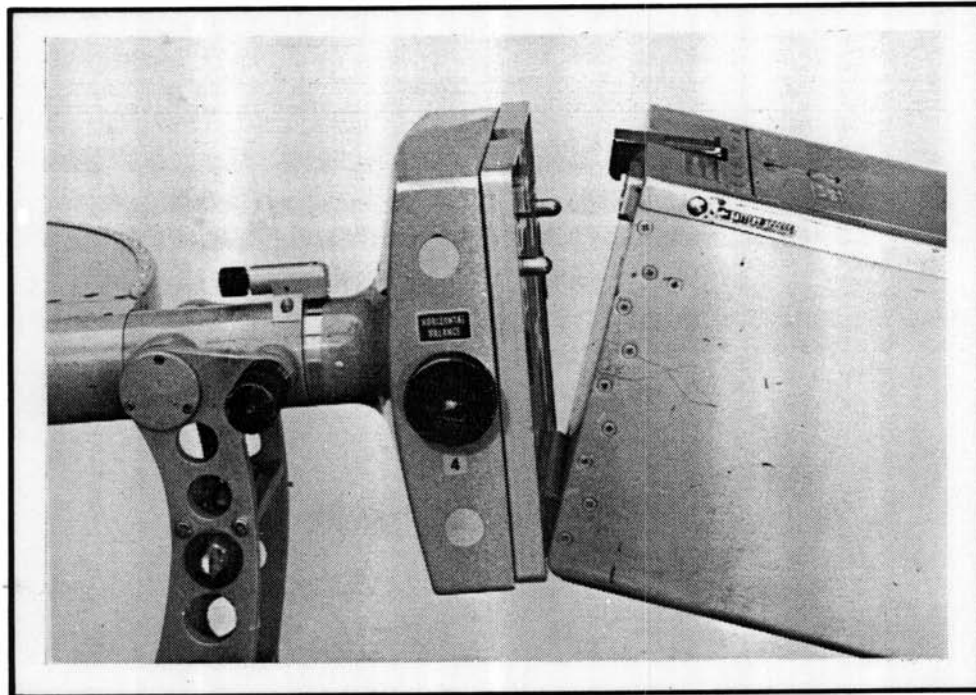
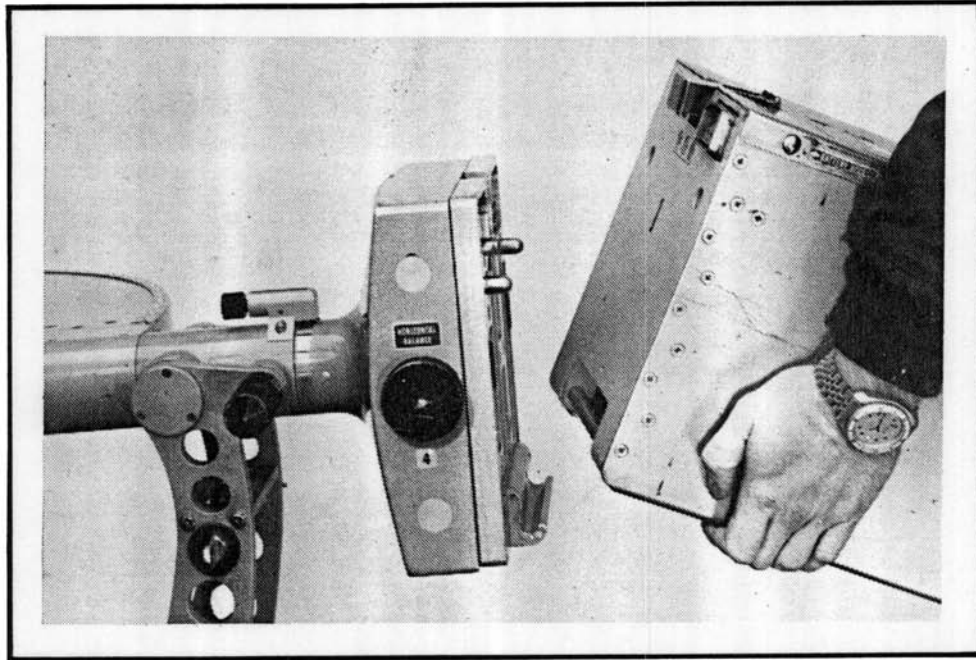
Install the Major Mount Arm, by lowering the Mast Post into the Lord Mount (Tilter) assembly. Engage the vertical mount locks (red knobs at the top of the Mast Post). Rotate the Mast Post Lock until it engages into a detent in the Lord Mount.



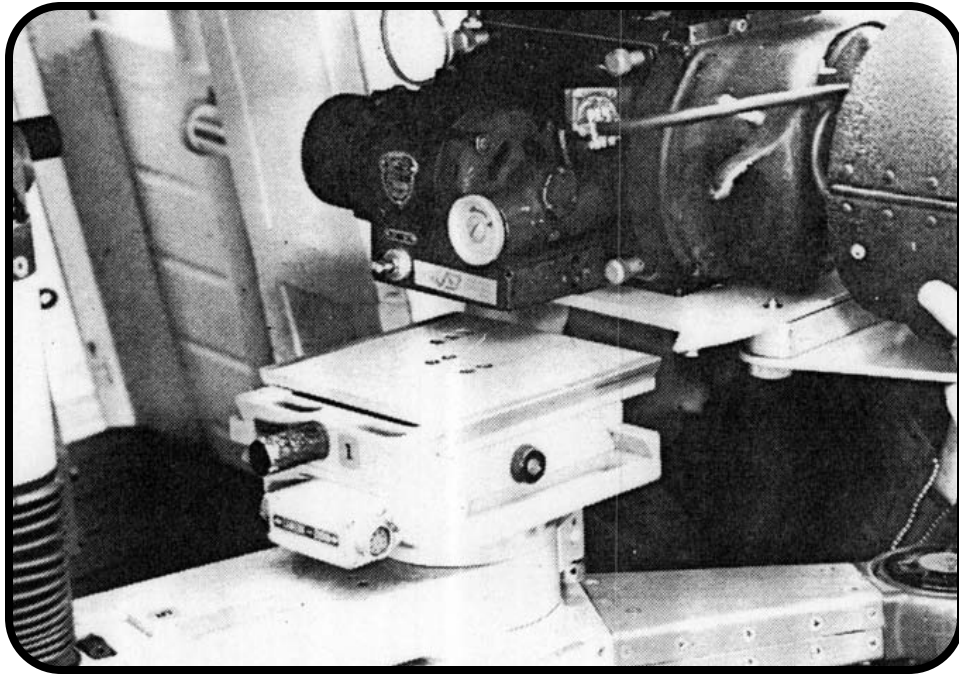
Attach the Restraint Strap Bracket to the Mast Post using a PI-pin. Attach the camera mount Restraint Straps to the Restraint Strap Bracket in their appropriate positions. Adjust the Restraint Straps so there is sufficient slack to allow the camera mount to move on the yaw (pan) axis.



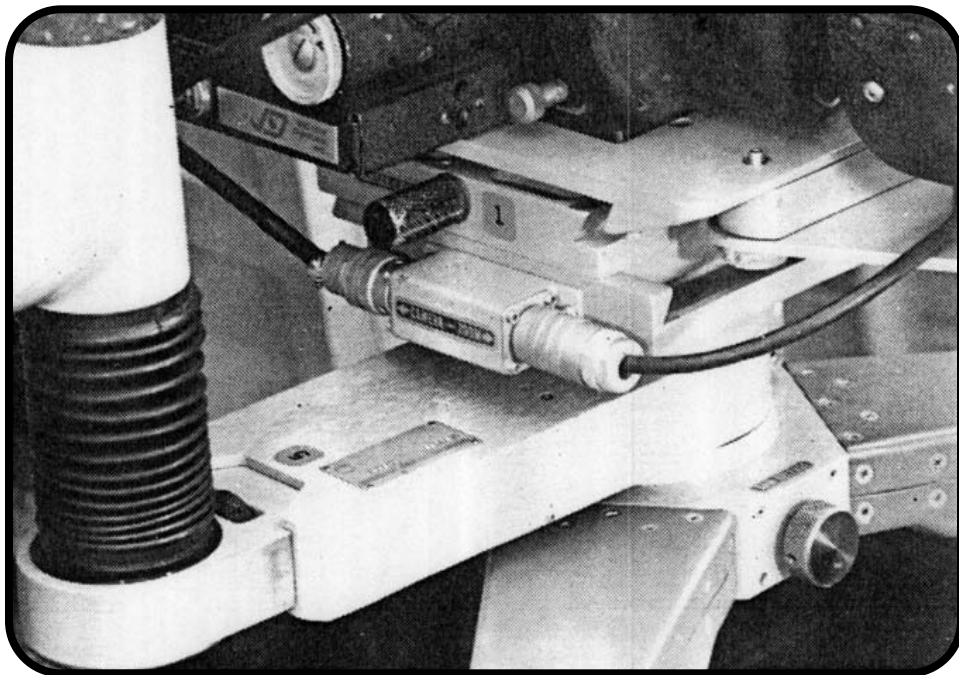
Connect the Hand Grip assembly and rotate the red knob (marked "Arm Release") clockwise until securely engaged.



Install the Battery Box by placing the box-support shaft onto the corresponding channel at the rear of the balance arm, and raising the Battery Box until it automatically engages and locks.



Install the camera by sliding the dovetail of the Quick Release onto the camera support assembly. While depressing the "Camera Release" Lever, slide the camera in until the lock portion of the Lever has cleared the edge of the camera support assembly and let go of it while continuing to slide the camera in until the lock portion of the Lever snaps into the camera support assembly. The "Camera Release" Lever will be flush or level with the Quick Release Plate.



Connect wiring from camera to camera mount assembly.

Windscreen installation
Right side shown



Install the Lexan Wind-Screen (AS-030) to the existing door hinges. Secure with 3/16" PI-pins or the bolts and stop nuts. Install on the Right or Left side, depending on the direction the Camera Mount installation. This completes the camera mount installation for Right side filming.

Note: For left side installation of Major Mount, reverse the procedures of the right side installation.

Camera Operator position during flight
Right side shown



Camera Operator position when shooting from the Right Side. Always wear Operator Safety Strap, and pull slack out of Secondary Operator Safety Strap. Do not change seating position during flight.

TYLER CAMERA SYSTEMS
14218 AETNA STREET
VAN NUYS, CA 91401

RFM SUPPLEMENT TO
EUROCOPTER FRANCE
AS-350B, AS-350B1, AS-350C,
AS-350D, AS-350D1, AS-350B2,
AS-350BA, AS 355E, AS 355F,
AS 355F1, AS 355F2, AS 355N

SUPPLEMENT NO. TCS AS806-001

STC SR00273LA

REF. 1

TYLER CAMERA SYSTEMS

FAA APPROVED

ROTORCRAFT FLIGHT MANUAL SUPPLEMENT

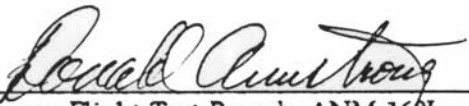
TO THE

EUROCOPTER FRANCE MODEL AS-350B, AS-350B1, AS-350C,
AS-350D, AS-350D1, AS-350B2, AS-350BA,
AS 355E, AS 355F, AS 355F1, AS 355F2, AS 355N

This supplement must be attached to the FAA Approved Rotocraft Manual, when the aircraft is modified by the installation of Tyler Camera Systems 806 Major Mount, in accordance with
STC SR00273LA DATE: FEB 19 1997.

The information contained herein supplements or supersedes the basic manual only in those areas listed herein. For limitations, procedures and performance information not contained in this supplement, consult the basic Rotorcraft Flight Manual.

FAA APPROVED:



Manager, Flight Test Branch, ANM-160L
Federal Aviation Administration
Los Angeles Aircraft Certification Office
Transport Airplane Directorate

DATE: Feb. 19, 1997

TYLER CAMERA SYSTEMS
14218 AETNA STREET
VAN NUYS, CA 91401

RFM SUPPLEMENT TO
EUROCOPTER FRANCE
AS-350B, AS-350B1, AS-350C,
AS-350D, AS-350D1, AS-350B2,
AS-350BA, AS 355E, AS 355F,
AS 355F1, AS 355F2, AS 355N

STC SR00273LA

TYLER CAMERA SYSTEMS
TYLER 806 EUROCOPTER FRANCE
MAJOR MOUNT

LOG OF REVISIONS

REV NO.	PAGES NO. DATE	DESCRIPTION	FAA APPROVED
ORIG.	ALL	INITIAL RELEASE	

FAA APPROVED: *Ronald Armstrong*
MGR., FLT TEST BR., ANM-160L
FAA, LOS ANGELES ACO
TRANSPORT AIRPLANE DIRECTORATE

FAA APPROVAL DATE: 2-19-97

TYLER CAMERA SYSTEMS
14218 AETNA STREET
VAN NUYS, CA 91401

RFM SUPPLEMENT TO
EUROCOPTER FRANCE
AS-350B, AS-350B1, AS-350C,
AS-350D, AS-350D1, AS-350B2,
AS-350BA, AS 355E, AS 355F,
AS 355F1, AS 355F2, AS 355N

SUPPLEMENT NO. TCS AS806-001

STC SR00273LA

Rotocraft Flight Manual Supplement

The information in this document is FAA approved material which, together with the basic flight manual, is applicable and must be carried in the basic manual when the helicopter is modified by the installation of the Tyler 806 Major Mount in accordance with STC SR00273LA.

The information in this document supersedes the basic manual only where covered in the items contained herein. For limitations, procedures and performance not contained in this supplement, consult the manual proper.

I. LIMITATIONS:

1. VNE = 69 knots - power ON or OFF at sea level with mount, with or without camera assembly and Lexan Wind Guard.
2. Reduce by 3 knots per 1000 ft. in altitude above 3000 ft. pressure altitude.

II. NORMAL OPERATIONS:

1. The basic Tyler Camera Systems 86 Major Mount configuration is with camera assembly (camera, mount and film magazine) installed. Operation, installation and removal of the camera assembly and camera ballast are to be conducted in accordance with Tyler Camera Systems Installation Manual No. TCS MJMT INST 7-95 "Tyler 806 Major Mount for Aerospatiale AS-350 & AS-355 Series Helicopters.
2. The **806 Major Mount** may be installed or removed by a *Tyler Camera Systems* trained technician, pilot or mechanic, and must be recorded in accordance with FAR 43.9.
Caution: Handle mount with care as it is heavy and unwieldy.

TYLER CAMERA SYSTEMS
14218 AETNA STREET
VAN NUYS, CA 91401

RFM SUPPLEMENT TO
EUROCOPTER FRANCE
AS-350B, AS-350B1, AS-350C,
AS-350D, AS-350D1, AS-350B2,
AS-350BA, AS 355E, AS 355F,
AS 355F1, AS 355F2, AS 355N

SUPPLEMENT NO. ICS AS806-001

STC SR002731A

III. WEIGHT & BALANCE:

Compute Longitudinal and Lateral CG using the following stations for the mount and operator:

Right Side	<u>Longitudinal</u>	<u>Lateral</u>
Mount :	92.02	+17
Operator :	82.02	+24
Left Side	<u>Longitudinal</u>	<u>Lateral</u>
Mount :	81.52	-17
Operator :	92.27	-24

IV. PERFORMANCE DATA

1. Hover performance not affected.

CAUTION:

LATERAL CG LIMITS MAY BE EXCEEDED WHEN THE PILOT, MOUNT AND OPERATOR ARE ALL ON THE SAME SIDE OF THE AIRCRAFT.

ALWAYS WEAR SEATBELT DURING FLIGHT. DO NOT CHANGE SEATING POSITION DURING FLIGHT.

*****DO NOT EXCEED LATERAL C.G.*****

FAA Approved Model List Number SR00273LA
 For
 Installation of Tyler Major Mount Camera System
 in aft compartment of Eurocopter France AS-350 and AS 355 Series Helicopters
 STC No. SR00273LA: Tyler Camera Systems
 Page 1 of 1

Aircraft Make and Model	Type Certificate Number	Certification Basis	FAA Approved Drawing List		Approval Date
			Number	Revision	
Series AS-350B, AS-350B1, AS-350C, AS-350D, AS-350D1, AS-350B2, AS-350BA	H9EU	FAR Part 27	TCSASMDL 7-95	A, dated 11/27/95	2/19/97
Series AS 355E, AS 355F, AS 355F1, AS 355F2, AS 355N	H11EU	FAR Part 27	TCSASMDL 7-95	A, dated 11/27/95	2/19/97

United States of America
Department of Transportation — Federal Aviation Administration
Supplemental Type Certificate

Number SR00273LA

This certificate, issued to Tyler Camera Systems
14218 Aetna Street
Van Nuys, California 91401

REF. 2

*certifies that the change in the type design for the following product with the limitations and conditions therefor as specified hereon meets the airworthiness requirements of Part * of the * Regulations.*

Original Product — Type Certificate Number: * * See attached FAA Approved Model
Make: * List Number SR00273LA
Model: *

Description of Type Design Change:

Installation of camera major mount in accordance with FAA Approved Drawing List, as listed on the attached FAA Approved Model List Number SR00273LA, and utilized in accordance with Tyler Camera Systems Rotorcraft Flight Manual Supplement No. TCS AS806-001, dated February 19, 1997, or later FAA approved revision.

Limitations and Conditions:

The limitations and conditions of Data Sheet H9EU or H11EU apply to Tyler Major Mount Camera Systems installation except as outlined on page 3 of this STC.. A copy of this STC must be included in the permanent records of each helicopter modified in accordance with this STC. This installation should not be incorporated in any aircraft unless it is determined that the interrelationship between this installation and any previously approved configuration will not introduce any adverse effect upon the airworthiness of the aircraft.

This certificate and the supporting data which is the basis for approval shall remain in effect until surrendered, suspended, revoked, or a termination date is otherwise established by the Administrator of the Federal Aviation Administration.

Date of application: July 17, 1995

Date issued:

Date of issuance: FEB 19 1997

Date amended:



By direction of the Administrator
Michael W. Allen

(Signature)
Manager, Airframe Branch
Los Angeles Aircraft Certification Office

(Title)

Any alteration of this certificate is punishable by a fine of not exceeding \$1,000, or imprisonment not exceeding 3 years, or both.

This certificate may be transferred in accordance with FAR 21.47.

United States of America
Department of Transportation—Federal Aviation Administration
Supplemental Type Certificate
(Continuation Sheet)

Number SR00273LA

Limitations and Conditions (Continued)

The FAA Approved Rotorcraft Flight Manual Supplement No. TCS AS806-001, dated February 19, 1997, or later FAA approved revision, for the Major Mount Camera System installation is required.

Operation Limitations: The following flight speed limitations apply to Eurocopter France AS-350 and AS-355 Series helicopter, equipped with the Tyler Major Mount Camera System installation.

I. LIMITATIONS

1. $V_{NE} = 69$ knots - power ON or OFF at sea level with mount, with or without camera assembly and Lexan Wind Guard.
2. Reduce V_{NE} by 3 knots per 1000 ft. in altitude above 3000 ft. pressure altitude.

The approval of this change in type design applies basically to Eurocopter France Models AS-350 and AS-355 Series helicopters. This approval should not be extended to other aircraft of these models on which other previously approved modifications are incorporated unless it is determined by the installer that the interrelationship between this change and any of those other previously approved modifications will introduce no adverse effect upon the airworthiness of that aircraft. This determination should include consideration of significant changes in weight distribution such as an increase in the fixed disposable weight in the fuselage.

--END--

Any alteration of this certificate is punishable by a fine of not exceeding \$1,000, or imprisonment not exceeding 3 years, or both.

FAA FORM 8110-2-1 (10-69)

This certificate may be transferred in accordance with FAR 21.47.

C FAA AC 82-03578

SAMPLE

EUROCOPTER FRANCE HELICOTER WEIGHT AND BALANCE

MODELS AS-350B, AS-350B1, AS-350C, AS-350D, AS-350D1, AS-350B2, AS-350B/A,
AS 355E, AS 355F, AS 355F1, AS 355F2, AS 355N

<u>ITEM</u>	<u>WEIGHT</u>	<u>ARM</u>	<u>MOMENT</u>
Equipped Empty Weight *	2,628.0 *		367,092.96
Crew	400.0	61.02	24,408.00
Cameraman	200.0	99.99	19,998.00
Fuel **	700.0 **	136.81	95,767.00
Major Mount	290.0	99.99	28,997.1
TOTAL	4,218.0	127.13	536,253.74

NOTE: ANY C.G. BETWEEN 124.8 AND 135.0 IS ACCEPTABLE

Forward Limit: 124.8 in.

Rear Limit (above that up to 4,300 lbs.) 135.0 in.

4,300 LBS. IS MAXIMUM TAKE-OFF WEIGHT.

CAUTION:

- * Use Equipped Empty Weight (EEW) as listed on Weight and Balance form in Aircraft Flight Manual of actual ship to be used.
- ** Adj. fuel weight to remain under max gross take-off weight.
- *** Operators must wear seatbelt at all times.