



14218 Aetna St.  
Van Nuys, CA. 91401  
Document Number TM-RFM-001

**FAA APPROVED**  
**ROTORCRAFT FLIGHT MANUAL SUPPLEMENT**  
FOR THE INSTALLATION OF THE  
**TYLER NOSE, SUPER NOSE, MULTI-CAM,**  
**NATIONAL GRID & NSWC MOUNTS**  
TO THE  
**EUROCOPTER MODEL**  
**AS 350 B, B1, B2, BA, B3, C, D, D1**  
**AS 355 E, F, F1, F2, N, NP**

REGISTRATION #: \_\_\_\_\_ SERIAL #: \_\_\_\_\_

The information in this supplement is FAA approved material and must be attached to the FAA Approved Eurocopter Rotorcraft Flight Manual when the airplane has been modified by the installation of Tyler Nose Mount Systems in accordance with:

**STC # SR 00643 LA**

The information contained herein supplements or supersedes the information in the basic Rotorcraft Flight 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

FAA DATE: Sept. 11, 2008

Original Issue: 13 July 1998  
Reissued: 25 September 1998, 1 June 1999, 28 May 2003, 24 August 2006




## LOG OF PAGES

Rev No.	Pg No	Date	Description of Change	FAA Approved
NC	Cvr 1,2	13 July 1998	Initial Issue	<u>/S/ Donald Armstrong</u> Mgr, Flight Test Branch ANM-160L, FAA, Los Angeles ACO, Transport Airplane Directorate  Date: 13 July 1998
A	Cvr 1,2	25 Sep 1998	Added the installation of "6 Camera" mount as an option. Changed the description as required	<u>/S/ Gordon Acker</u> Act Mgr, Flight Test Branch ANM-160L, FAA, Los Angeles ACO, Transport  Date: 25 Sept 1998
B	Cvr 1,2	1 Jun 1999	Changed name from "6 Camera" to "Multi-Cam" and added "Universal Ball Side Mount". Added reference to the weight and balance information. Changed header all pages	<u>/S/ Donald Armstrong</u> Mgr, Flight Test Branch ANM-160L, FAA, Los Angeles ACO, Transport Airplane Directorate  Date: 1 June 1999



## LOG OF PAGES (Cont)

Rev No.	Pg No	Date	Description of Change	FAA Approved
C	Cvr 1,2	28 May 2003	Added "National Grid" mount. Changed the $V_{NE}$ to be in line with the basic RFM speed reduction with altitude.	<u>/S/ Jim Richmond</u> Mgr, Flight Test Branch ANM-160L, FAA, Los Angeles ACO, Transport Airplane Directorate  Date: 28 May 2003
D	Cvr i 1-5	24 Aug 2006	Added "NWSC Nose Mount". Was issues under different document no TXM 3-98 which is Install Manual No. Chg header all pages	<u>/S/ Hank Tong</u> Act Mgr, Flight Test Branch ANM-160L, FAA, Los Angeles ACO, Transport Airplane Directorate  Date: 24 August 2006
E	Cvr ii-iv 1-8  2 2-5 6  8	11 Sep 2008	Added aircraft models AS 350 B3 & AS 355 N, NP. Changes header all pages. Chg Material Added pictures. Chg Install wording Revised wt & bal matrix Removed Universal Ball Mount	 Flight Test Branch ANM-160L, FAA, Los Angeles ACO, Transport Airplane Directorate  Date: <u>11, 2008</u>



RFM Supplement to the Eurocopter RFM for the  
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for the installation of the Different Nose & Side Mounts

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## SECTION 1 – GENERAL

The Tyler Nose Mount Systems consists of the 4130 steel tubular frame members mounted to the underside of the airframe and a nose mount. The undercarriage structure, aft of the chin bubble, is common to most all the mounts.



**Figure 1. Nose Mount**

The ‘Super Nose Mount’ (figure 2) is capable of accommodating larger and wider cameras. A counter weight, attached to the aft end of the undercarriage structure, is needed to offset the forward CG.



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**Figure 2. Super Nose Mount**

The "Multi-Cam Mount" (figure 3) can accommodate up to 6 cameras and also requires the counter weight.



**Figure 3. Multi-Cam Nose Mount**



The “National Grid Nose Mount” (figure 5) positions the camera/sensor on the left side outboard of the fuselage. No counter weight required.



**Figure 4. National Grid Nose Mount**

The “NSWC Nose Mount Systems” is mounted to the undercarriage frame and requires an aft counter balance. An external pitot tube is integrated in the mount and is connected to the ships system by a flexible tube.





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**Figure 5. NSWC Nose Mount**

The information to compute the weight and balance, and maximum allowable electrical load can be found in the **Tyler Installation Manual TMX 3-98** for the particular sensor to be installed. It is the pilot and installers' responsibility to comply with the installation instructions, procedures, and limits listed the Installation Manual.

## 1. SECTION 1 – LIMITATIONS

### 1.1 AIRSPEED

- Reduce the published Power – On  $V_{NE}$  25 KIAS (29 MPH) with the nose & counter balance system installed.



## 1.2 MOUNT LIMITS

- The nose mount system must have the Camera Package and Counterweights installed / removed as a unit, (when applicable) for all operations to maintain CG.
- The mounts are approved and have been demonstrated with “packages” of the maximum size and weight shown in Section VI Weight & Balance.

## 2. SECTION 2 – NORMAL PROCEDURES

### 2.1 COCKPIT PROCEDURES (NSWC MOUNT ONLY)

- Pitot Heat Circuit Breaker - OUT
- Pitot Heat Switch – OFF

### 2.2 INSTALLATION PROCEDURES

- Installation and removal of the payload to the mount is a simple process that can be accomplished without the use of tools and is considered to be preventive maintenance. The holder of a pilot certificate issued under Part 61 may perform this task with an appropriate maintenance record entry.

## 3. SECTION 3 – EMERGENCY PROCEDURES

- No change to the basic flight manual



## **4. SECTION 5 - PERFORMANCE**

### **4.1 HOVER PERFORMANCE**

- No Change

### **4.2 CLIMB PERFORMANCE**

- Reduce climb performance by 100 ft/min with the any mount system installed.

## **5. SECTION 6 – WEIGHT AND BALANCE**

The weight and balance data must be considered for each flight.

The station locations are at the camera/sensor attach point



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Mount	Size (sq ft.)	Weight (lbs)	Station Long (in)	Butt Line Lat (in)
Nose	1.8	39	10.5	0.0
Super Nose	2.25	120	7.5	0.0
Multi-Cam	3.75	140	23.25	0.0
National Grid	2.25	125	43.2	-28.3*
NSWC	2.25	55	-8.25	0.0

\* end of the frame tube

See the installation manual for details

**CAUTION**

**Longitudinal CG can be easily exceeded. Compute the aircraft weight and balance before flight.**