



2608 Temple Heights Dr.
Oceanside, California 92056
Supplement FMS-600(1)

**FAA APPROVED
ROTORCRAFT FLIGHT MANUAL SUPPLEMENT
TO THE**

MD HELICOPTERS, INC.

MODEL 600N

**FAA APPROVED ROTORCRAFT FLIGHT MANUAL
for**

EMERGENCY FLOATS

This supplement must be attached to the FAA Approved Rotorcraft Flight Manual when the rotorcraft is modified by the installation of Apical Industries Emergency Float Kit in accordance with

STC No. SR00471LA

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

A handwritten signature in blue ink that reads "Hieu Tong".

A handwritten signature in blue ink that reads "Actg".

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

DATE OF APPROVAL

A handwritten date in blue ink that reads "5/16/06".

Date of Original Approval: October 15, 1997



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RFM Supplement to the MD Helicopters, Inc. 600N
Flight Manual for the Installation of the
Apical Emergency Floats

STC No. SR 00471LA

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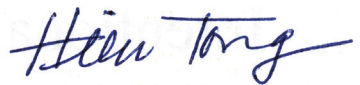


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B	Cover	Delete part number & date of RFM	
	2	Added picture	
	3	Added ferry conditions Added max altitude for inflation	 Mgr, Flight Test Br, ANM-160L, FAA, Los Angeles ACO, Transport Airplane Directorate
	4	Deleted CG “no change” statement	DATE: <u>5/16/06</u>
	6	Revised checks prior to flight	
	7	Deleted Pressure Table Added Pressure Graph	
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SECTION I INTRODUCTION

The floats are normally carried in the stowed configuration, mounted as a compact package on top of each skid. Float inflation is accomplished by pulling the activation handle on the cyclic. A cable activates the valve allowing nitrogen stored in the pressure vessel to inflate the floats.



Figure 1. Floats Stowed

An optional Float Lamp Assembly MDHI (P/N 369D292032) is available from MDHI consisting of dual belly mounted sealed beam lights, a circuit breaker, and a three position switch installed on the collective control. Forward position illuminates the standard nose mounted landing light; center position is off; and aft position illuminates the belly lights.

Night flight over water is permitted with the Float Lamp Assembly installed.

A water ditching is for emergency purposes only.



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SECTION II LIMITATIONS

General

Water landings have not been demonstrated.

Type of Operation

The emergency floats shall be used only for emergency landings.

Take off after a water ditching is prohibited.

If a power on emergency landing was executed, the reason for the emergency landing is corrected, and inspection of the rotorcraft reveals no damage, then operation with the Emergency Floats inflated is permitted for flight to a servicing facility for repacking and recharging of the system. The ferrying airspeed is limited to 100 KIAS.

In inspection of the electrical and mechanical components in the lower fuselage and pilot static system must be conducted after water landings.

Night flight over water beyond autorotational capability to the ground is prohibited unless the 369D292032 Float Lamp Assembly is installed.

Altitude Limitations

The maximum altitude for inflation is 6,600 ft above the landing surface.

Airspeed Limitations

Maximum airspeed with the floats stowed: no change



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Maximum speed for float inflation: 85 KIAS.

Maximum airspeed with floats inflated: 100 KIAS

Temperature Limitations

Operational temperature range for over-water flight is

-4° F (-20° C) minimum
+125° F (+51.6° C) maximum

Weight Limitations

Maximum gross weight is 4100 pounds.

Placards

When emergency floats are installed, the following placards are required:

Placard #1 (Installed on the pilot's inside door frame.)





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Placard #2 (Installed on the pilot's inside door frame.)



NOTE:

Placard #2 is not required if 369D292032 Float Lamp Assembly is installed.

SECTION III EMERGENCY & MALFUNCTIONS PROCEDURES

Emergency Float Operation

- If emergency occurs at airspeeds greater than maximum permissible float inflation speed, i.e., 85 KIAS, reduce speed to an appropriate value prior to float inflation. Do not exceed airspeed limits of the EMERGENCY FLOATS INFLATED V_{NE} Placard.

NOTE

Inflations have been demonstrated up to 85 KIAS in autorotation and in powered flight.



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- Pull float activation lever.
- For low level over-water operation, immediate pilot reaction will be required to ensure float inflation prior to water contact.
- Make a normal landing approach. Minimize forward speed prior to water contact. Recommended water contact speed is 10 knots or less. Do not lower collective until forward speed is 5 knots or less.

NOTE

The above procedures have not been
demonstrated by a water landing.

Landings should be made with the helicopter as level as possible laterally and the nose of the helicopter slightly high. One-float-first landings may produce undesirable but controllable yaw.

If emergency occurs at night over water and the engine is out, the dual landing lights should not be illuminated above 1000 ft. in order to preserve battery power. Approach and landing as noted above.

SECTION IV NORMAL PROCEDURES

Checks Prior to Flight

- Check condition and security of stowed float package for cuts or holes.
- Check hoses for cuts or kinks.



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- Check for correct reservoir pressures on reservoir valve pressure gauges.

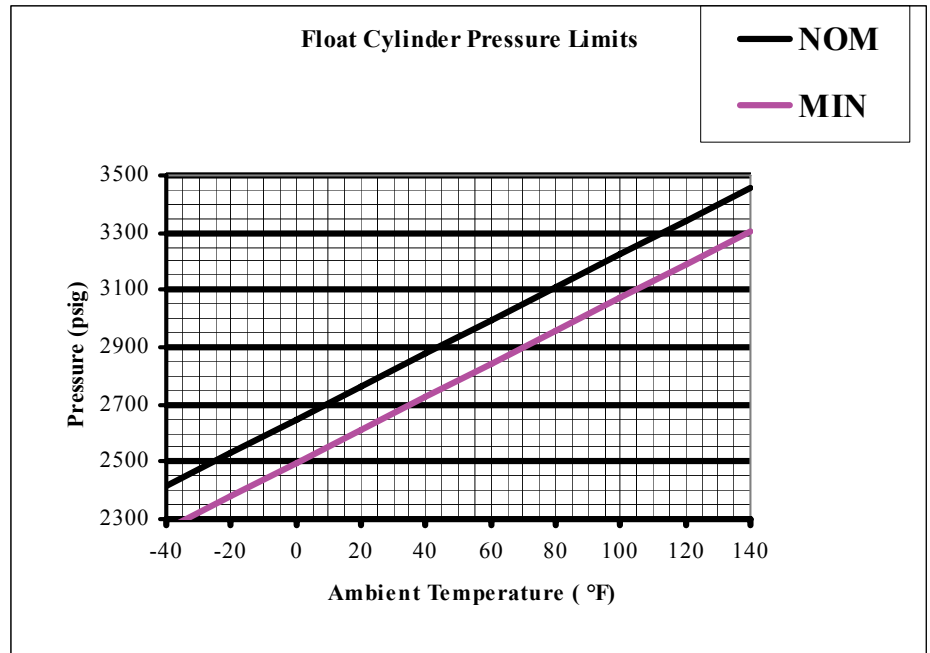


Figure 2. Float Cylinder Pressure vs. Temperature



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- A detent pin is provided in the inflation handle. It must be removed prior to flight and re-installed upon landing.

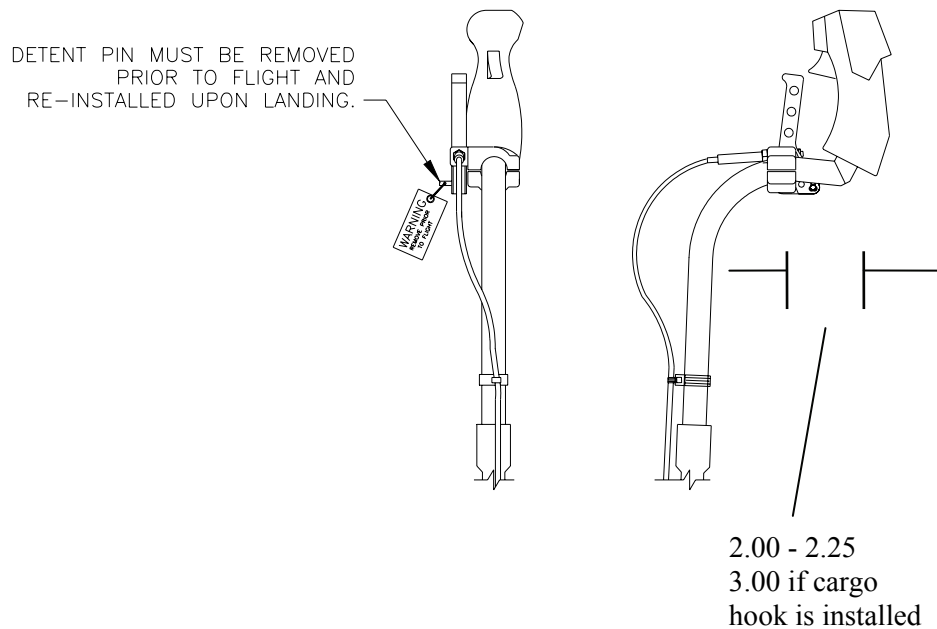


Figure 3. Float Manual Deployment Handle on Cyclic



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In-Flight Inflation Data

Float inflation time and altitude required for deployment are presented below. Time is affected by temperature. Deployment altitude is based on a stabilized autorotational rate of descent of 2500 ft. per minute. It was calculated using the tabulated float inflation time, and a two second increment for pilot reaction:

Float Inflation Time	5.0 sec. Temps up to 21° C 4.0 sec. Temps above 21° C
Altitude Req'd for Deployment	209 ft. Temps up to 21° C 167 ft. Temps above 21° C

SECTION V PERFORMANCE DATA

In Ground Effect Hover Penalty - Stowed Floats

- With floats stowed, no change from that of the basic helicopter.

Height-Velocity Diagram

- With floats stowed, no change from that of the basic helicopter.

Float Lamp Assembly (P/N 369D292032)

- Hover performance and Height-Velocity Diagram remain unchanged.

