BELL MODEL 206B JET RANGER II FLIGHT MANUAL SUPPLEMENT FOR

206-706-010

EMERGENCY FLOTATION ON HIGH SKID GEAR WITH PREFLIGHT SYSTEM TEST FEATURE

FAA APPROVED
JULY 28, 1972

This supplement shall be attached to the Flight Manual, when the 206-706-010 Emergency Flotation, on High Skid Gear with Preflight System Test Feature, has been installed.

The information contained herein supplements the information of the basic Flight Manual. For Limitations, Procedures, and Performance Data not contained in this supplement, consult the basic Flight Manual.

Bell Helicopter TEXTRON
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28 JULY 1972
REVISION 2 — 24 OCTOBER 1985

BHT-206B-FMS-17

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LOG OF REVISIONS

REVISION NO.	DATE	REVISION NO.	DATE
Original	28 Jul 72		
Reissue	20 Dec 72		
1	29 Jun 83		
2	24 Oct 85		

APPROVED

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DEPARTMENT OF TRANSPORTATION
SOUTHWEST REGION, FORT WORTH, TEXAS

NOTE: Revised text is indicated by a black vertical line. Insert latest revision pages; dispose of superseded pages.

INTRODUCTION

The Emergency Flotation on High-Skid Gear Kit No. 206-706-010, consists of a high-skid landing gear, emergency floats attached to the main skid panels, inflation system, navigation lights, and attaching hardware. Installation of this kit permits operation over land or water. Float inflation time is approximately 5 seconds.

NOTE

On Serial Numbers 4 through 153, Service Instruction No. 206-36 (Landing Gear Support Doublers) must be accomplished prior to installation of kit.

Section 1

OPERATING LIMITATIONS

TYPE OF OPERATION

Operations with the emergency floats inflated is limited to flight to a servicing facility for repacking and recharging the system.

The floats and covers must be installed for all flight operations.

Flight operations over land or water are approved.

Accomplish, daily, PREFLIGHT FLOAT SYSTEM CHECK prior to performing over water operations.

AIRSPEED LIMITATIONS

Floats stowed, covers installed — Same as basic helicopter.

Maximum inflated airspeed — 100 MPH (87 knots) with all doors on.

Maximum inflated airspeed with one or both aft doors off — 60 MPH (52 knots).

Maximum airspeed during float inflation — 70 MPH (61 knots).

WEIGHT LIMITATIONS

Maximum approved gross weight — 3200 pounds (1451.5 kilograms).

Flight after an emergency water landing at gross weights above 3000 pounds (1360.8 kilograms) is prohibited.

CENTER OF GRAVITY LIMITS

Actual weight change shall be determined after kit is installed and ballast readjusted, if necessary to return empty weight CG within allowable limits.

PLACARDS

WHEN FLOTATION EQUIP. IS INSTALLED
REDUCE ALLOWABLE WEIGHT BY 60 LBS.
(Located on inside of baggage compartment door.)

FLOAT INFLATION ABOVE
70 MPH PROHIBITED
(Located on overhead console)

FLOAT
ARMING
ABOVE 70 MPH
PROHIBITED
(Located on instrument panel)

During the inflation cycle, undesirable pitching will occur at airspeed above 70 MPH (61 knots).

Section 2

OPERATING PROCEDURES

NORMAL PROCEDURES

EXTERIOR CHECK

Floats stowed.

Float covers clean and secured.

Nitrogen bottle - pressure - 2800 to 2900 PSI.

INTERIOR CHECK

PREFLIGHT FLOAT SYSTEM CHECK

FLOAT MANUAL ARM switch — OFF (guard closed).

FLOAT POWER circuit breaker — Check IN.

FLOAT TEST and ARMED lights — PUSH TO TEST.

FLOAT TEST switch — FLOAT TEST position, and hold.

FLOAT INFLATION TRIGGER switch — PULL ON, float test light ON, then release.

FLOAT TEST switch — RELEASE, test light OUT.

FLOAT MANUAL ARM switch — POWER (guard open), FLOAT ARM light ON, then switch OFF (guard closed), light OFF.

IN-FLIGHT OPERATIONS

OVER WATER OPERATION

FLOAT MANUAL ARM switch — POWER (guard open).

FLOAT ARMED light — ON.

CAUTION

During flight at altitudes above 500 feet and at airspeed of 70 MPH (61 knots) IAS and above the system should be deactivated by positioning the FLOAT MANUAL ARM switch in the OFF position (guard closed).

Rearm system prior to landing.

IN-FLIGHT OPERATIONS (Cont)

OVER LAND OPERATION

FLOAT MANUAL ARM switch — OFF.

LANDING — TOUCH-DOWN

WARNING

Run-on landings on other than a hard firm surface should be exercised with CAUTION, due to the increased ground contact area of the skid panels.

NOTE

Tail-low run-on landings should be avoided to prevent nose-down pitching.

EMERGENCY PROCEDURES

FLOAT INFLATION PROCEDURE

Maximum inflation airspeed — 70 MPH (61 knots).

FLOAT MANUAL ARM switch — POWER (guard open).

FLOAT INFLATION PROCEDURE (Cont)

FLOAT ARMED light — ON.

FLOAT INFLATION TRIGGER switch — PULL ON.

CAUTION

Do not inflate floats more than 5000 feet above anticipated landing surface.

AFTER EMERGENCY WATER LANDING

GROSS WEIGHT 3000 POUNDS (1360.8 KILOGRAMS) OR LESS

After landing, inspect the aircraft for possible damage.

If malfunction was cause of landing, correct malfunction.

If no damage has occurred to aircraft and malfunction has been corrected, the aircraft can be ferried to the nearest maintenance facility to repack floats and charge system. The ferrying airspeed is restricted to 100 MPH (87 knots) with all doors on or to 60 MPH (52 knots) with door or doors off.

GROSS WEIGHT ABOVE 3000 POUNDS (1360.8 KILOGRAMS)

After landing, aircraft must not be flown until the aircraft has been moved to nearest maintenance facility.

Inspect the aircraft for possible damage.

If malfunction was cause of landing, correct malfunction.

Repack floats and charge system.

ENGINE FAILURE - NIGHT

Establish an autorotative glide at 60 MPH (52 knots), for minimum rate of descent, and turn on landing light.

At 100 feet execute a moderate cyclic flare to reduce airspeed to approximately 30 MPH (26 knots).

Adjust collective and cyclic pitch sufficiently to perform a low speed cushioned touch-down at a slight nose-up attitude.

NOTE

Night autorotative touch-down landings have been demonstrated at airspeeds to 35 MPH, (30 knots).

Section 3

PERFORMANCE DATA

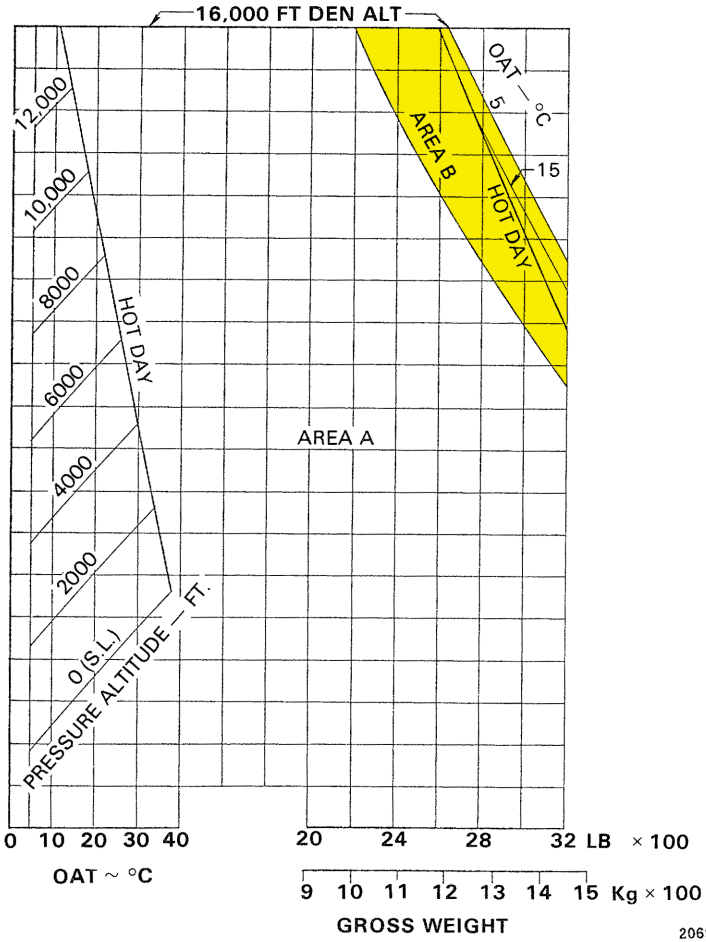
Refer to Particle Separator Supplement when the particle separator is installed.

HOVERING CEILING

Out-of-ground effect hovering performance is the same as basic helicopter. In-ground-effect hovering performance is shown on the following graphs.

HOVER CEILING
IN GROUND EFFECT TAKEOFF POWER
5° TO 37.8°C

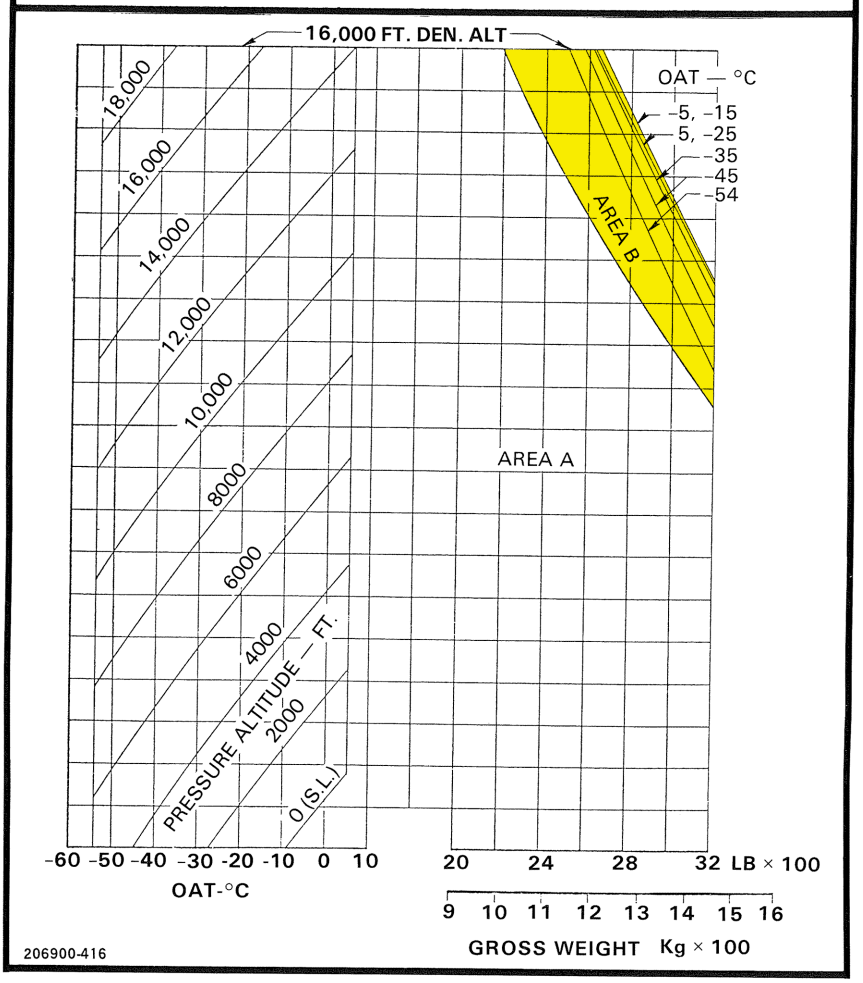
GENERATOR 22.3 AMPS — ANTI-ICE OFF
SKID HEIGHT 3.0 FT (0.9 METERS) — ENGINE RPM 100%
WITH ANTI-ICE ON GROSS WEIGHT IS 270 LBS (122 Kg) LESS
(HI SKIDS W/EMGR FLOATS)



HOVER CEILING
IN GROUND EFFECT TAKEOFF POWER
5° TO -54°C

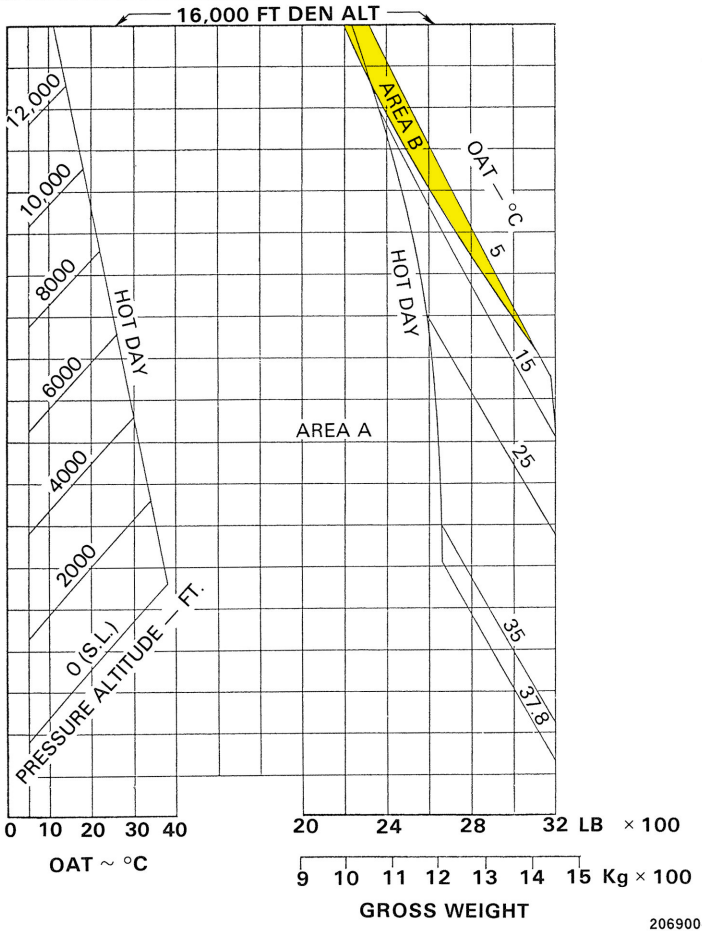
GENERATOR 22.3 AMPS **ANTI-ICE OFF**
SKID HEIGHT 3.0 FT (0.6 METERS) **ENGINE RPM 100%**

WITH ANTI-ICE ON GROSS WEIGHT IS 270 LB (122 Kg) LESS (HI SKIDS W/EMGR FLOATS)



HOVER CEILING
IN GROUND EFFECT MAX CONTINUOUS POWER
5° TO 37.8°C

GENERATOR 22.3 AMPS **ANTI-ICE OFF**
FLOAT HEIGHT 3.0 FT (0.9 METERS) **ENGINE RPM 100%**
WITH ANTI-ICE ON GROSS WEIGHT IS
350 LBS (159 (Kg) LESS
(HI SKIDS W/EMGR FLOATS)



HOVER CEILING
IN GROUND EFFECT MAX CONTINUOUS POWER
5° TO -54°C

GENERATOR 22.3 AMPS
SKID HEIGHT 3 FT. (0.9 METERS)
WITH ANTI-ICE ON GROSS WEIGHT IS 350 LB (159 Kg) LESS
(HI SKIDS W/EMGR FLOATS)

ANTI-ICE OFF
ENGINE RPM 100%