# **BELL 429**

# ROTORCRAFT FLIGHT MANUAL

# SUPPLEMENT

# GARMIN GWX75H WEATHER RADAR

# 429-899-870

# CERTIFIED 6 NOVEMBER 2020

This supplement shall be attached to the BHT-429-FM-1 when the Garmin GWX75H Weather Radar kit (429-899-870) is installed.

Information contained herein supplements information in the basic Flight Manual. For Limitations, Procedures, and Performance Data not contained in this supplement, refer to the basic Flight Manual.

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CHIEF, FLIGHT TEST FOR DIRECTOR — NATIONAL AIRCRAFT CERTIFICATION TRANSPORT CANADA

# **GENERAL INFORMATION**

The Garmin GWX75H Weather Radar installation (429-899-870) consists of a Receiver/ Transmitter/Antenna (RTA) unit, hardware, and wiring necessary for display integration with the Garmin GTN 750 and stabilization from the Air Data / Attitude and Heading Reference System (ADAHRS).

The Garmin GTN 750 is mounted in the instrument panel and contains all controls necessary to operate the radar. The RTA unit is located in the nose of the helicopter.

The weather radar is used for weather detecting and analysis, and for ground mapping. The weather mode detects and locates various types of storms along the flight path of the helicopter, and gives the pilot a visual indication of storm intensity. After proper evaluation, the pilot can chart his course around these storm areas.

The mapping mode enables the pilot to identify coastlines, hilly or mountainous regions, and cities. The weather radar performs only the functions of weather detection and ground mapping and shall not be used, or relied upon, for proximity warning or collision avoidance.



# LIMITATIONS

## 1-3. <u>TYPES OF OPERATION</u>

1-3-A. GROUND OPERATION

Radar system shall not be operated on ground or in hover when personnel or flammable materials are in the danger area shown in Figure 1-7.

Radar system shall not be operated during refueling or within 100 feet (30.5 m) of any fueling operation.

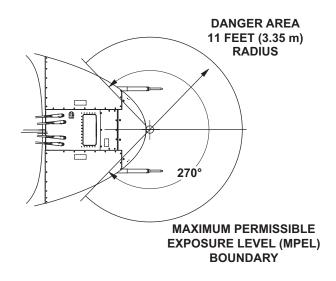
Radar system shall not be operated anytime a large metallic object is forward of helicopter nose, at a distance of less than approximately 300 feet (100 m).



GARMIN GWX75H WEATHER RADAR SYSTEM PERFORMS ONLY FUNCTIONS OF WEATHER DETECTION AND GROUND MAPPING. IT SHALL NOT BE USED FOR GROUND PROXIMITY OR COLLISION AVOIDANCE.

#### 1-6. <u>WEIGHT AND CENTER OF</u> GRAVITY

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



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Figure 1-7. Danger Area

# Section 2

# NORMAL PROCEDURES

## 2-1. INTRODUCTION

Normal operating procedures for the Garmin GWX75H Weather Radar installation are detailed in the following manuals:

- Garmin GTN 725/750 Pilot's Guide, publication No. 190-01007-03, Rev R or later.
- Garmin GTN 725/750 Cockpit Reference Guide, publication No. 190-01007-04, Rev M or later.

### 2-3. PREFLIGHT CHECK

#### 2-3-A. BEFORE EXTERIOR CHECK

Weather radar — OFF.

#### 2-4. INTERIOR AND PRESTART CHECK

Weather radar — OFF.

### 2-7. <u>BEFORE TAKEOFF</u>

Weather radar — Standby (STBY).

#### 2-9. IN-FLIGHT OPERTIONS

Weather radar — As desired.

### 2-10. DESCENT AND LANDING

After landing is assured, weather radar — Standby (STBY).

#### NOTE

Garmin GTN 750 automatically switches weather radar to STBY upon landing.

### 2-11. ENGINE SHUTDOWN

Weather radar — OFF.



EMERGENCY AND MALFUNCTION PROCEDURES

3-15. WARNING CAUTION AND ADVISORY LIGHTS/ MESSAGES

Table 3-4.	Advisory	(Green,	White, o	or Cyan) Li	ghts/Messages
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MESSAGE	FAULT CONDITION	CORRECTIVE ACTION	
WOG MAINT	Weight on gear switch inoperative	Applicable maintenance required.	
		Garmin GTN 750 may not automatically switch weather radar to STBY upon landing. Manually select STBY or OFF upon landing.	

Section 4

# PERFORMANCE

No change from basic manual.

# Section 5

HANDLING/SERVICE AND MAINTENANCE

No change from basic manual.