



TECHNICAL BULLETIN

429-17-51
23 May 2017

MODEL AFFECTED: 429

SUBJECT: HONEYWELL ADAHRS ENHANCED HEADING
PRESET MODE, INTRODUCTION OF.

HELICOPTERS AFFECTED: Serial numbers 57001 through 57343, 57346
through 57352 wanting to operate in Low
Magnetic Field Strength Areas (LMFSA)

[Serial number 57344, 57345, 57353 and
subsequent will have the intent of this bulletin
accomplished prior to delivery.]

COMPLIANCE: At customer's option.

DESCRIPTION:

This Technical Bulletin introduces an enhanced Heading Preset (HP) mode to the Air Data and Attitude Heading Reference System (ADAHRS) when the aircraft is flying in Low Magnetic Field Strength Areas (LMFSA) such as in Northern Domestic Airspace (NDA). In order to use this enhanced mode, the ADAHRS unit requires a software upgrade which has to be coordinated through Bell Helicopter Customer Property Return (CPR).

The change will also make the better exit transition from HP mode and allow the pilot time to respond. The proposed change is that upon completion of the 8 minute HP mode timeout period, and prior to the removal of the HP Mode annunciation (see BHT-429-IAM, Chapter 4-3 for more details), the ADAHRS first checks the magnetometer reading to see if a magnetic field able to support normal magnetic slaved mode is present. If the magnetic field does not pass the criteria to allow reversion to magnetic slaving, exit from HP mode is suspended until such time the criteria does pass and the condition is annunciated by replacing the HP mode "SET" flag with an "ALN" (ALIGN) flag.

Applicability of this bulletin to any spare part shall be determined prior to its installation on an affected helicopter.

APPROVAL:

The engineering design aspects of this bulletin are Transport Canada Civil Aviation (TCCA) approved.

CONTACT INFO:

For any questions regarding this bulletin, please contact:

Bell Helicopter Product Support Engineering - Intermediate Helicopters
Tel: 450-437-2077 / 1-800-463-3036 / pseinter@bh.com

MANPOWER:

Approximately 2.0 man-hours are required to complete this bulletin. This estimate is based on hands-on time and may vary with personnel and facilities available.

WARRANTY:

There is no warranty credit applicable for parts or labor associated with this bulletin.

MATERIAL:

Required Material:

The following material is required for the accomplishment of this bulletin and may be obtained through your Bell Helicopter Textron Supply Center.

<u>Part Number</u>	<u>Nomenclature</u>	<u>Qty (Note)</u>
429-075-123-105	ADAHRS	1 (1)

NOTE 1: The ADAHRS unit PN 429-075-123-105 has the new Honeywell software installed. Contact Bell Helicopter Customer Property Return (CPR) to coordinate the ADAHRS PN 429-075-123-101 or PN 429-075-123-103 software upgrade. Refer to the General Information Letter GEN-04-98.

Consumable Material:

None required.

SPECIAL TOOLS:

None required.

WEIGHT AND BALANCE:

Not affected.

ELECTRICAL LOAD DATA:

Not affected.

REFERENCES:

BHT-429-MM, Maintenance Manual

BHT-429-IAM, Integrated Avionics Manual

General Information Letter GEN-04-98, CHANGES TO BHT CUSTOMER PROPERTY RETURN (CPR) PROCESS

PUBLICATIONS AFFECTED:

BHT-429-IPB, Illustrated Parts Breakdown, Chapter 95

ACCOMPLISHMENT INSTRUCTIONS:

1. Prepare the helicopter for maintenance.
2. Remove the ADAHRS unit PN 429-075-123-101 or 429-075-123-103 (BHT-429-MM-2, Chapter 95).
3. Install the ADAHRS unit PN 429-075-123-105 (BHT-429-MM-2, Chapter 95).
4. Make an entry in the helicopter logbook and historical service records indicating compliance with this Technical Bulletin.