



A Textron Company

## **OPERATION SAFETY NOTICE**

**407-24-25**  
27 June 2024

**TO: All owners and operators of Model 407 Helicopters**

**SUBJECT: AFCS UNCOMMANDED PITCH UP WITH LOSS OF SBAS SIGNAL**

This Operation Safety Notice (OSN) is issued to advise owners / operators of 407GX / GXP / GXi aircraft equipped with Bell Automatic Flight Control System (AFCS) of the possibility for an unexpected pitch-up command on approach.

It was determined that a loss of Satellite Based Augmentation System (SBAS) signal while performing an autopilot coupled Localizer Performance with Vertical Guidance (LPV) or Lateral Navigation (LNAV) / Vertical Navigation (VNAV) approach may initiate this pitch-up command causing the helicopter to deviate from the glidepath.

A Garmin Software deficiency was found to prevent the autopilot from reverting to Attitude Hold (ATT) mode on the pitch axis when VNAV signal is lost. Bell is in discussions with Garmin about this finding.

When performing autopilot coupled LPV or LNAV/VNAV approaches, it is recommended to keep hands on controls and to closely monitor the vertical deviation indicator for valid glidepath in conjunction with the behavior of the aircraft.

If an uncommanded pitch up attitude event should occur, manually fly helicopter to stabilize approach and determine if a missed approach or a Go-around is required. Once stabilized and if continuation of approach is desired, press APR to decouple approach, followed by a press of NAV to couple LNAV. Manual control of vertical profile is required.

It is important to note that this issue is only linked to the LPV and LNAV/VNAV approaches and does not affect Instrument Landing System (ILS) approaches. During coupled ILS approach, in case Glide-Slope information is lost, the autopilot will revert to ATT mode on the pitch axis as intended.

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Approved for public release.

A revision to the applicable Rotorcraft Flight Manuals and Flight Manual Supplements will soon be published to address this specific issue.

For any questions regarding this letter, please contact:

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