Bell Helicopter TEXTRON

A Subsidiary of Textron, Inc.

September 19, 2000

INFORMATION LETTER 214ST-00-14

TO: **All Owners/Operators of Bell 214ST Helicopters**

SUBJECT: **TAILROTOR COUNTERWEIGHT BELLCRANK RETAINING NUT TORQUE**

Proper operation of the tailrotor counterweight bellcranks and ensuring the integrity of their installation depend on a number of factors. Primary among these are setting and maintaining the proper torque on the bellcrank retention nut, P/N 214-310-800-101.

Inadequate nut torque may allow increased bending load in the crosshead spindle. This could cause fatigue cracking and failure of the spindle. To achieve and maintain the proper nut torque, BHT reminds operators of the following:

1. Threads of both the crosshead spindle and the P/N 214-310-800-101 Nut should be clean and free of dirt, oil, grease, or any other contaminant during assembly. Contamination of the threads will give a false indication of torque. In addition, the nut has a solid film lubricant coating. Damaged solid film coating, particularly in the threads, should be repaired as noted in BHT-ALL-SPM.

2. The P/N 214-310-800-101 Nut should be torqued to the high side of the required torque range specified by the 214ST Maintenance Manual. This will help ensure that any adjustment of the nut to accommodate alignment of the cotter key hole should not lower the nut torque below minimum specification.

3. The proper cotter key part number to be used with the P/N 214-310-800-101 Nut is MS24665-357 as noted in ASB 214ST-92-57. The current 214ST IPB (Rev 4) listing (Figure 64-2, Item 17) is not correct. The smaller cotter key, P/N MS24665-285, <u>should not</u> be used with the P/N 214-310-800-101 Nut.

Condition of the counterweight bellcrank bearings, P/N 214-010-774-001, may also have an effect on retaining nut torque. Worn or damaged bearings can eventually create a loss of torque to the stack-up. Bearing wear/condition is checked each 250 hours (“B” Inspection) by disconnecting the counterweight links and rotating the counterweight bellcrank about the crosshead spindle. Of equal importance to bearing condition is maintaining proper bearing lubrication. In this instance the counterweight bearings are lubricated each 25 hours or more frequently if conditions warrant.