



A Textron Company

OPERATION SAFETY NOTICE

206L-14-50  
21 October 2014

**TO: All owners and operators of Model 206L4 helicopters**

**SUBJECT: HIGH ALTITUDE TAIL ROTOR (HATR) KIT, MAINTENANCE PRACTICES**

There have been three reported incidents involving 206L4 helicopters equipped with the High Altitude Tail Rotor (HATR) Kit, where blade bolts have failed and separated from the tail rotor hub and blade assembly. All three events involved one blade bolt cracking, and the cracked portion along with the counter weight support departing from the tail rotor hub and blade assembly.

Parts from two of the incidents were returned back to Bell Helicopter Textron for root cause investigation, and the findings indicated several areas of concern related to maintenance practices. All the returned bolts had missing Cadmium plating. One of the cracked bolts was found with pitting corrosion, from which the fatigue crack propagated. The crack occurred in two distinct phases, meaning the crack was already existent prior to the final failure. The bolt had been removed and re-used in that cracked condition. The second cracked bolt showed fretting and corrosion on the bolt, which also led to a fatigue crack initiating from that location.

One of the bolts showed that there was deformation to the shank of the bolt indicating that an improper stack up of washers and/or bolt lengths was used during the installation.

This OSN is published to heighten customer's awareness to the importance of the corrosion protection that is applied to components and hardware. When applicable, the use of published procedures to add or repair damaged or missing corrosion protective material should be followed (refer to the Information Letter GEN-03-89, the Corrosion Control Guide (CSSD-PSE-87-001), and the Standard Practice Manual (BHT-ALL-SPM)). We also want to highlight the importance of following all installation procedures preventing "shanking" of bolts and assuring proper torque applications to the installed hardware.

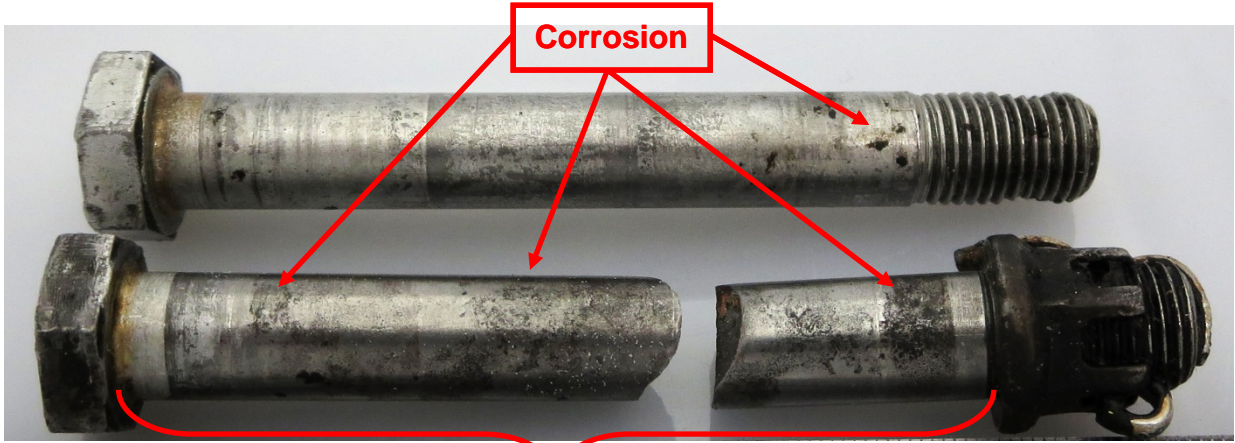
For any questions regarding this letter, please contact:

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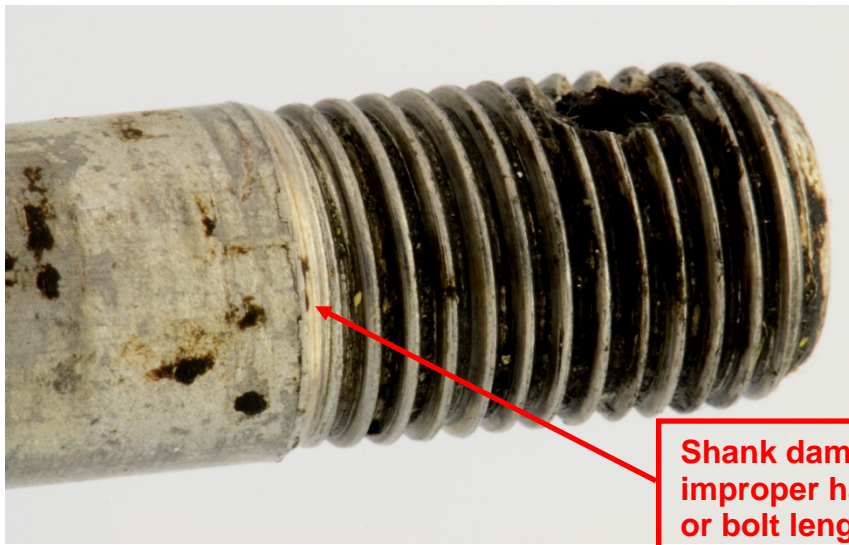
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Approved for public release.



**Missing Cadmium plating**



**Shank damage due to improper hardware stack-up or bolt length**

**FIGURE 1 – High Altitude Tail Rotor Blade Retention Bolts**