

Interagency Aviation Safety Alert



No. IA 08-08 July 29, 2008 Page 1 of 2

Subject: Immediately Inspect Swage Fittings on All Rappel Ropes

Area of Concern: Rappel Operations

Distribution: All Rappel Bases

Disscussion: A potential safety issue has emerged concerning the ½ inch Descent Control ropes used in helicopter rappel operations. A number of the aluminum swages used on rope terminations have been found to have cracks running lengthwise through the bodies of the swages. No swages have been reported as having failed during use.

Background: All swages have a crease down each side as a result of the crimping process used to press swages onto ropes (figure 3). When looking straight down on them, these creases may look similar to cracks, but when viewed end-on, the crack should not extend through the body of the swage.

Recommendations:

- 1) All rappel rope swages should be carefully inspected by a qualified spotter. The cracks can only be seen by inspecting both of the flat ends of each swage (figure 1 and 2).
- 2) Any rope identified as having cracked swages or suspected cracked swages should be removed from service immediately and sequestered.
- 3) Report any ropes with cracked swages or suspected cracked swages to your regional Interagency Helicopter Rappel Equipment and Procedures Committee representative. Procurement dates and copies of rope logs should accompany each rope identified as having cracked swages.
- 4) Information will be forthcoming on what to do with ropes removed from service; in the interim, do not ship ropes with cracked swages to High Angle or Descent Control.

In decentralized organizations like the rappel program, it is often difficult to ascertain whether an identified equipment problem is a rare occurrence or has previously been experienced by others. Sometimes a given equipment issue may seem to be of such relative unimportance that it never gets reported. On occasion, these unreported "minor" issues have turned out to be indicators of a larger problem. When "minor" problems go unreported, rappel program leaders are less likely to notice undesirable trends developing.

To help foster an information-sharing environment, and to facilitate trend analysis, the rappel community is encouraged to report any equipment that is defective or different from the expected norm. Protocols are outlined in the Interagency Helicopter Rappel Guide, Section 3.8 Rappel Equipment Irregularity Reporting Protocols http://fsweb.mtdc.wo.fs.fed.us/rappel/pubs/htmlpubs/rapguide/page03.htm

If you have questions or need assistance, contact your regional IHREPC representative or call Tim Lynch at the Missoula Technology and Development Center, 406-329-3958.

Figure 1: Crack on thimble end of swage

Figure 2: Hairline crack - A magnifying glass makes it easier to see hairline cracks

Figure 3: Swage crease

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