

Caliente Elevated SAFECOM

1. **SUMMARY.** On August 26, 2011 a lead helitack crewmember was in the process of loading two firefighters and their equipment into a vendor-operated AS 350 B2 helicopter when he attempted to “toss” a chainsaw file out from under the operating rotor system. The file struck one main rotor blade damaging it to the point that the rotor blade had to be replaced. There were no injuries and the mishap was immediately reported using proper protocols.
2. **SEQUENCE OF EVENTS.** The mission on August 26 involved multiple sorties to transport firefighters and their equipment from a helibase to a helispot and from the helispot back to the helibase. The helicopter manager was located at the helibase and the helispot was staffed by a lead helitack crewmember.
3. Due to the tactical situation the helicopter did not shut down at the helispot for the loading and unloading of firefighters and equipment.
4. Immediately prior to the mishap the helicopter had landed at the helispot and the lead helitack crewmember off-loaded three firefighters and their equipment. The lead helitack crewmember then escorted two firefighters to the aircraft and, as the firefighters were getting settled into their seats, began to secure their equipment into an external cargo basket.
5. As he was securing a “dolmar” (plastic container with two compartments for fuel and oil) (figure 1) in the external basket the lead helitack crewmember observed a chain saw file (figure 2) loosely wedged between the two compartments of the dolmar. The lead helitack crewmember took the file and, without thinking, tossed it behind him (to clear the rotor system).



Figure 1. Example of a Dolmar fuel/oil container.

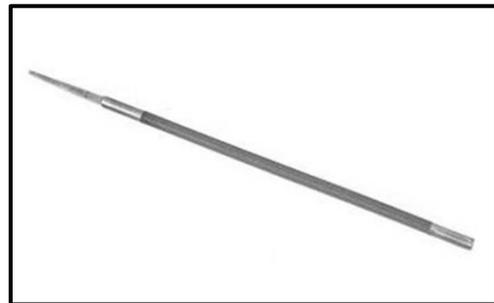


Figure 2. Example of a chainsaw file.

Issue: Not throwing objects FROM a helicopter is addressed in the Interagency Helicopter Operations Guide (NFES 1885), the Basic Aviation Safety booklet (NFES 2097), and the Incident Response Pocket Guide (NFES 1077). However,

none of these references specifically address not throwing objects while underneath an operating rotor system.

6. The file struck and damaged one main rotor blade but fortunately did not strike any of the personnel around the helicopter. The lead helitack crewmember was unaware that the file had struck the rotor blade until an observer outside of the rotor system told him of the incident.

7. The lead helitack crewmember immediately notified the pilot who shut down the aircraft and called for a company mechanic to inspect the damaged rotor blade. The mechanic determined that the damage would require replacement of the blade (figure 3).



Figure 3. Close up view of damage to main rotor blade.

8. The lead helitack crewmember initiated the appropriate mishap notifications using BLM protocols. The BLM National Aviation Office notified the Aviation Management Directorate (AMD) Safety Office who in turn notified the National Transportation Safety Board (NTSB) as required by 49 CFR 830.5. The event was not classified as an accident by the NTSB.

9. The lead helitack crewmember submitted SAFECOM 11-0847 on August 27.

10. Due to the circumstances of the event AMD elected to “elevate” the SAFECOM and conduct an accident prevention investigation during which interviews were conducted with the pilot and the lead helitack crewmember.

11. **FINDINGS.** Despite the lack of specific written policy or guidance to prohibit throwing objects while under an operating rotor system the inherent danger of such an act is recognized as inappropriate by the helicopter community at large as well as by the individual involved in this incident.

12. The routine nature of the crew shuttle flights likely created an environment of relaxed professional discipline that resulted in inattention and an inappropriate action on the part of the lead helitack crewmember.
13. All post-mishap actions were proper, timely, and professional.
14. The lead helitack crewmember was cooperative and candid during his interview and made valuable suggestions to reduce the chance of such an incident recurring.
15. The vendor pilot's decision to immediately shut down and have the damage inspected by a qualified mechanic is commendable.
16. BLM, at both the State and National levels, are commended for quickly providing accident prevention information related to this and other incidents to field users.