



Interagency Aviation Accident Prevention Bulletin



No. IAAPB 16-04

Date: July 22, 2016

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Subject: Premo MK III Plastic Sphere Dispenser (PSD) Machine Plexiglass Sphere Chute Cover Cracks

Area of Concern: PSD Operations

Distribution: All Aviation and Fire Activities

Discussion: On June 26, 2016 an AS350 B3 was returning to the helibase after completing PSD operations when a 3"x 5" piece of plexiglass that covers the sphere chute on the machine broke and flew off. The qualified Plastic Sphere Dispenser Operator (PLDO) was aware that the sphere dust cover was cracked prior to launching on the mission, yet he felt there was no threat since that crack had been present for many years. After landing, the crew performed a post flight inspection but failed to identify any aircraft damage.

The next morning, the pilot conducted a preflight inspection on the same aircraft. Additionally, a mechanic performed a 50 hour maintenance inspection before the aircraft departed from the Cedar City Airport. Missions for that day included one reconnaissance flight, one crew transport flight, two sling load missions and a PSD operation totaling three hours of flight time.



That afternoon while the helicopter was being washed, two dents were discovered on the vertical stabilizer fin six inches below the anti-collision light. They were approximately one inch wide and three inches in length with a depth ranging from 1/8 - 1/4 inch. It is believed that the sprayer used to wash the aircraft removed the paint chips that were covering the dents.

The mechanic conducted a visual and structural inspection and sent pictures to the contractor's Director of Maintenance. The Helicopter Manager informed the home unit Aviation Officer, Regional Helicopter Operations Specialist (HOS), and the DOI Maintenance Inspector of the damage to the aircraft. The mechanic received word from Director of Maintenance that the damage was beyond serviceable limits and the stabilizer fin required replacement.

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The photo shows the Premo Mk III installed in a helicopter. The location of the chute plexiglass cover is indicated by the circle.



It cannot be determined for sure that the piece of plexiglass that departed the aircraft on June 26 struck the tail fin and caused the damage that was discovered during the aircraft wash.

There are numerous examples of things falling off or out of the aircraft that has resulted in fatal accidents, most often when they impact the tail rotor. Previous incidents have taught us many powerful and painful lessons. Continued mindfulness is required to prevent repetition of lessons already learned.

Several other sphere covers with cracks were later discovered by regional helicopter operations staff within the region where this occurred. If the sphere chute plexiglass cover has any cracks, take the PSD machine out of service until the cover is replaced. The replacement covers are available to order (approximately \$15) from:

USA Premo PSD Service Center
Fire and Aviation Resource Services
200 Embler Two Road
Alexander, NC USA 28701
Tel: 828.775.1871
E-mail: guyfire@aol.com

/s/ Keith Raley
Chief, Aviation Safety,
Training & Program Evaluations
DOI, Office of Aviation Services

/s/ Gary Sterling
Branch Chief, Aviation
Safety Management Systems
USDA Forest Service