



Interagency Aviation TECH BULLETIN



No. IATB 20-01

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Page 1 of 2

SUBJECT: Aerostat Mark V Plastic Sphere Dispenser and PSDS Plastic Spheres

AREA OF CONCERN: Aerial Ignition

DISTRIBUTION: All Aviation Users

ISSUE: Reliability and continued use of the Aerostat Mark V and PSDS Plastic Spheres

DISCUSSION: The Aerial Ignition Unit has identified and documented several issues with the Aerostat Mark V Plastic Sphere Dispenser and PSDS Plastic Spheres throughout several Forest Service Regions. Several of the machines were identified as brand new purchases and operationally performed unsatisfactorily upon bench testing. Upon further inspection it has been determined that machines contained defects including incorrect wiring, wiring and components that were not quality controlled, low quality cardboard gaskets, missing hose clamps, and configurations that were not accepted during approval testing. Hose clamps and side rails in the hopper were recommended and in place on the model that was approved, but have not been supplied on newly purchased machines. Plastic spheres with little or no potassium permanganate inside and many loose sphere halves or inadequate welds were found. Loose halves are a danger because they often result in jams inside the machine. Existing stock of plastic spheres may be used, however, the operator must remain vigilant in inspecting for loose sphere halves (and rejecting them) to prevent jams and machine malfunctions. These problems can result in increased risk to all personnel on board by requiring additional takeoffs and landings, additional overall helicopter flight time, increased chances for internal cabin fire, and in addition, reduced ignition effectiveness of the PSDS Plastic Spheres.

ACTION: Contract action has halted and prevented renewal of Aerostat's GSA contract. New purchases of the Aerostat Mark V is not recommended, restrictions on purchasing Aerostat Mark V devices will be included in the next revision of the NWCG Standards for Aerial Ignition (PMS 501). Existing equipment may still be used; however, the Mark V does not currently have another service center for repairs or parts. It is not recommended to contact Aerostat for service or parts. It is not recommended to buy new Aerostat PSDS Plastic Spheres. Review the [Aerostat Problem Guidance](#) document posted under Plastic Sphere Dispenser Training on the Interagency Aerial Ignition Unit home web page (<https://www.nwcg.gov/committees/interagency-aerial-ignition-unit>) for guidance on repairing the Mark V and inspecting plastic spheres.

These issues highlight why it is essential to report negative conditions so we can identify trends to address the source and provide guidance to reduce the occurrence of problems during flight. Use the Safecom system and report issues to your representative on the Interagency Aerial Ignition Unit (<https://www.nwcg.gov/committees/interagency-aerial-ignition-unit/roster>).

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