



## Interagency Helicopter Operations Subcommittee

---

IHOPS-20-05

**Date:** March 13th, 2020  
**To:** Chair, National Interagency Aviation Committee  
**From:** Chair, Interagency Helicopter Operations Subcommittee  
**Subject:** Aerostat Mark V

### BACKGROUND:

The IAIU has identified problems surrounding the Aerostat Mark V Plastic Sphere Dispenser & PSDS inc. Plastic Spheres. The Mark V has been removed from the NWCG Standards for Aerial Ignition guide for interagency purchase but use of existing systems is allowed. The IAIU has posted an instructional use paper on the IAIU web page, which is housed on the NWCG website.

### RECOMMENDATION:

The IHOPs Subcommittee is requesting that NIAC seek interagency Aviation Safety Community development and distribution with similar language of the Aerostat Mark V operational issues (provided below) through a Tech Bulletin process. This Aerostat Mark V Plastic Sphere Dispenser issue language was developed by the IAIU and supported by the IHOPs Subcommittee. IHOPs recommends the immediate development and wide dissemination as soon as possible. There is a link embedded within the language that will direct users to an instructional use guide which was developed by the IAIU.

*Dan Boyle*

Chair, IHOP Subcommittee

(509) 925-0967

[dan.boyle@dnr.wa.gov](mailto:dan.boyle@dnr.wa.gov)

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

Area of Concern: Aerial Ignition

Distribution: All aviation users

Main Point: New purchases of the Aerostat Mark V are prohibited although use of existing equipment is authorized.

Discussion: The Aerial Ignition Unit 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 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.

Action: Contract action has halted and prevented renewal of Aerostat's GSA contract. New purchases of the Aerostat Mark V are prohibited, which will be stated in the approved aerial ignition device list 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 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 how 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>).