

Appendix A – Plastic Sphere Dispenser (PSD) Operations

Required Forms

Information may be contained in the Incident Action Plan (IAP), prescribed fire plan, *NWCG Standards for Helicopter Operations* (NSHO), PMS 510, or agency-specific form – such as Project Aviation Safety Plan (PASP) or Mission Aviation Safety Plan (MASP) – and may be utilized in lieu of the following forms. Required forms are available at <https://www.nwcg.gov/committees/interagency-aerial-ignition-unit>.

- PSD Air Operations and Safety Go/No-Go Checklist (required format)
- PSD PASP or MASP
- Job Hazard Analysis (JHA) or Risk Management Assessment (RMA)
- Aviation Risk Assessment Worksheet (NSHO, Appendix J, <https://www.nwcg.gov/publications/510>)
- PSD Organization Chart – PSD Prescribed Fire
- PSD Organization Chart – PSD Wildland Fire
- Helicopter Crash Rescue and Medivac Plan (NSHO, HBM-15, <https://www.nwcg.gov/publications/510>)
- Hazardous Materials Manifest (*NWCG Standards for Aviation Transport of Hazardous Materials*, PMS 513, <https://www.nwcg.gov/publications/513>)
- NWCG Standards for Transporting Fuel, PMS 442, <https://www.nwcg.gov/publications/442>

Optional Documents

- Aerial Ignition Preplanning Checklist
- Interagency PSD Operator Annual Recertification Training Form
- PSD Use Record
- Manufacturer supply contact list
- Briefing Checklist
- Aerial Ignition Device Additional Training

Project Aviation Safety Plan

OPM-6 and FSM-5700 require an agency-specific PASP/MASP be completed prior to any special use missions involving aircraft. The PASP/MASP is a proactive measure used for preplanning and risk assessments which are paramount to a successful accident-free mission. The PASP/MASP allows for a collaborative effort of all personnel involved to address all elements of the mission and generate a plan with risks at acceptable levels.

Once the PASP/MASP is completed, project supervisors or flight managers must get approval to execute the mission. The amount of risk involved to accomplish the mission dictates the level of approval required. The risk assessment matrix included in the PASP/MASP template provides guidance on the level of approval based on the level of risk. A mission with a level of risk in “low” or “medium” may only need approval from a unit aviation manager or forest aviation officer, but a mission in the “serious” or “high” category will require approval from an aviation division or regional aviation manager.

After the mission is approved, conduct an on-site briefing that covers the elements of the mission with all participants, and then you may implement the plan.

The key to a smooth process for the PASP/MASP is to be thorough. Line officers and Incident Management Team (IMT) incident commanders (IC) must be able to understand your plan from a written form.

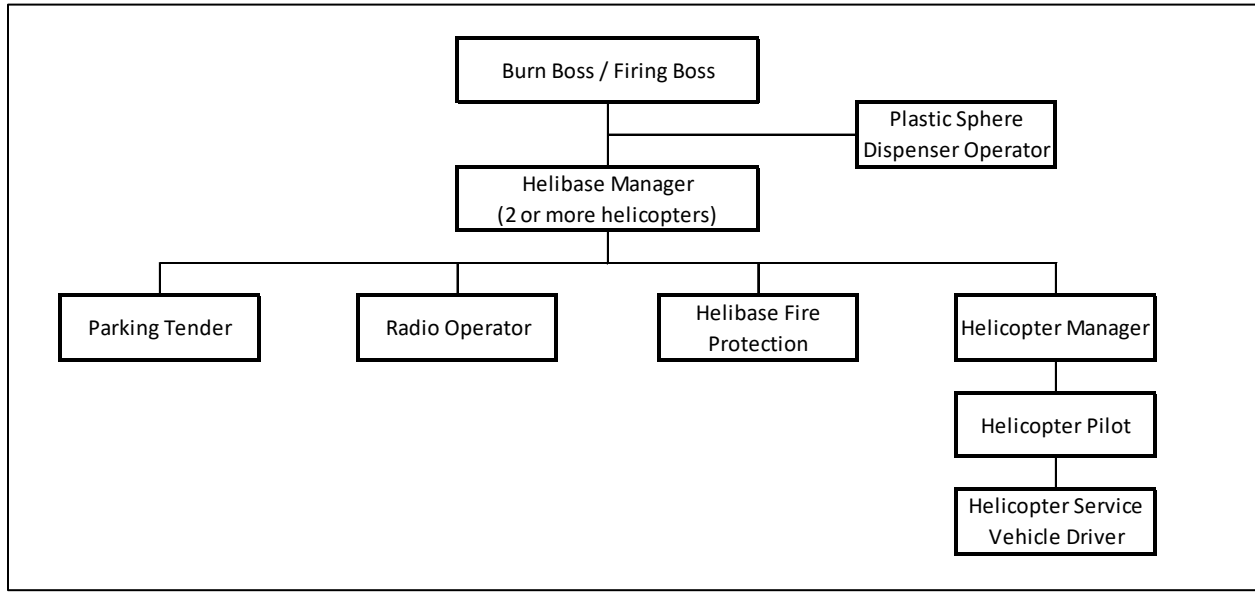
PSD Air Operations and Safety Go/No-Go Checklist

The helicopter operations on this project require the use of this checklist. If all items are not checked as satisfactory (go) and maintained in that state for the duration of the mission, flying operations will be suspended until the deficiency is mitigated.

HELIBASE SAFETY		
GO	NO-GO	
		Approved Project Aviation Safety Plan (PASP)
		Qualified Helibase Manager assigned (if necessary)
		Helibase or helispot meet established standards
		Organizational chart posted, assignments known
		Communication chart posted. Frequency assignments known.
		Helibase or helispot fire protection meets established standards.
		Crash rescue and evacuation kits on the helibase or helispot.
		Current mishap response plan posted at helibase or dispatch and ready to implement
		All personnel briefed. Aerial ignition personnel briefed on in-flight operations.
		Personal protective equipment meets established standards.
		Flight hazard map posted, and hazards known to pilot.
AIRCRAFT AND PILOT(S)		
		Check pilot and aircraft approval cards; are they qualified for the mission?
		Check pilot and aircraft limitations.
		Load calculations prepared, reviewed, signed, and posted.
		Check aircraft radios; are frequencies programmed?
		Remove all loose articles from aircraft.
		Fire shelters for each occupant must be carried in the aircraft and be accessible during flight.
		Water bucket ordered with aircraft (optional)
		Approved secondary restraint: check to see it does not reach beyond the sill of the aircraft when secured.
		Discuss flight profile, watch-out situations including loss of tail rotor authority, settling with power, and downwind turns, among other pertinent information.
PLASTIC SPHERE DISPENSER		
		Installation correct with restraints in place.
		Bench test complete, mechanical operations satisfactory.
		Extinguisher (water reservoir) system filled and operational.
		Glycol reservoir filled and tightly capped
		Appropriate ignition delay achieved, recommend approximately 20 second delay
		Intercom and aircraft-to-ground communications operable.
		Pilot has been briefed and agrees that all is in order.
		Sphere containers secured.
		Seat belt cutter available for emergency use.
		Additional one gallon backup emergency water container available.
		Tool kit and operator's manual on board aircraft (optional).
BURNING OPERATIONS		
		All persons briefed and assignments known.
		Maps and photos of project area used and posted.
		Special weather considerations are known and discussed.
		Communication plan posted and frequency assignments known
		Emergency operations plan known and discussed.
		Personal protective equipment meets established standards.
		Special safety considerations known and discussed.
SUPPORT EQUIPMENT AND PERSONNEL		
		Adequate support equipment and personnel to complete mission.

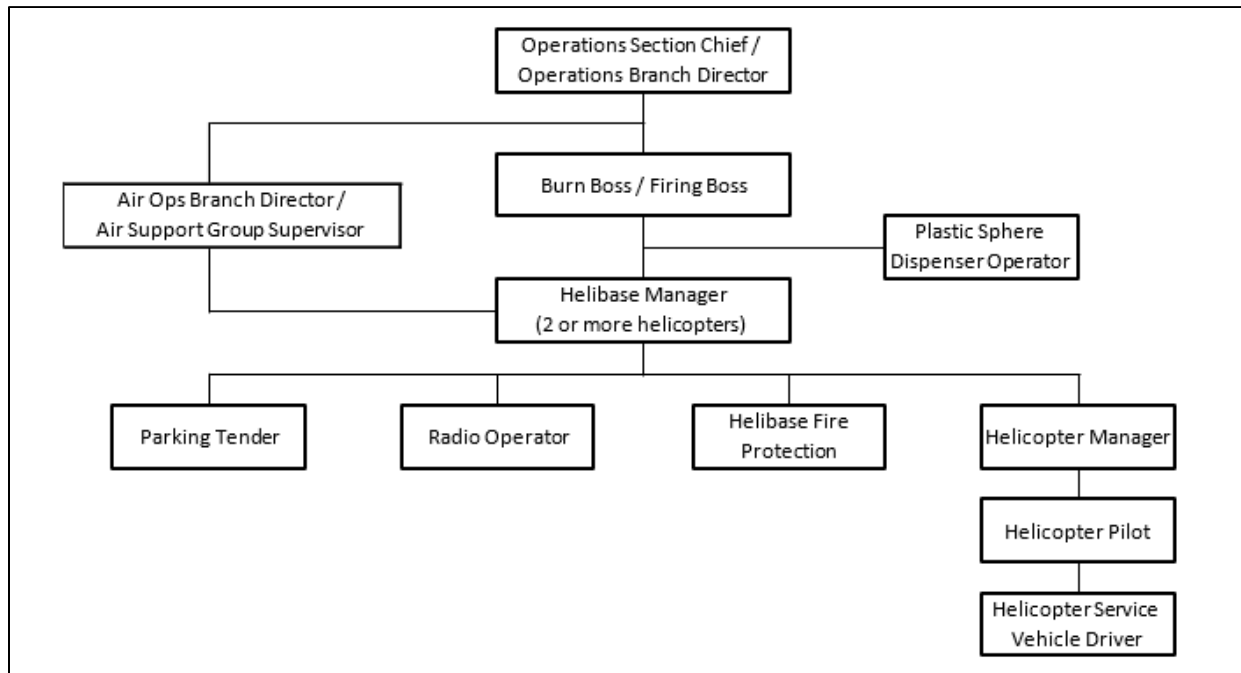
Plastic Sphere Dispenser Organization – Prescribed Fire

Figure A-1. Organizational chart showing prescribed fire positions associated with PSDO



Plastic Sphere Dispenser Organization – Wildland Fire

Figure A – 2. Organizational chart showing wildland fire positions associated with PSDO



The following forms are optional.

PSD Aerial Ignition Preplanning Checklist

Prescribed Burn plan approved	<input type="checkbox"/> yes	<input type="checkbox"/> no	<input type="checkbox"/> NA
Project Aviation Safety Plan approved	<input type="checkbox"/> yes	<input type="checkbox"/> no	<input type="checkbox"/> NA
Burn Blocks prepped for aerial ignition	<input type="checkbox"/> yes	<input type="checkbox"/> no	<input type="checkbox"/> NA
Is there an aircraft and pilot available/carded	<input type="checkbox"/> yes	<input type="checkbox"/> no	<input type="checkbox"/> NA
Aircraft and fuel truck reserved/scheduled the week before	<input type="checkbox"/> yes	<input type="checkbox"/> no	<input type="checkbox"/> NA
PSD Equipment serviced and ready	<input type="checkbox"/> yes	<input type="checkbox"/> no	<input type="checkbox"/> NA
PPE including fire shelters for all participants	<input type="checkbox"/> yes	<input type="checkbox"/> no	<input type="checkbox"/> NA
Adapters needed/available	<input type="checkbox"/> yes	<input type="checkbox"/> no	<input type="checkbox"/> NA
Extra Spheres available/where	<input type="checkbox"/> yes	<input type="checkbox"/> no	<input type="checkbox"/> NA
Backup/spare PSD	<input type="checkbox"/> yes	<input type="checkbox"/> no	<input type="checkbox"/> NA
Crash rescue/Evacuation equipment ready	<input type="checkbox"/> yes	<input type="checkbox"/> no	<input type="checkbox"/> NA
Helispots prepared and approved	<input type="checkbox"/> yes	<input type="checkbox"/> no	<input type="checkbox"/> NA
Fire Suppression needs available	<input type="checkbox"/> yes	<input type="checkbox"/> no	<input type="checkbox"/> NA
(Extinguishers, foam, Engine, CAF)			
Enough qualified people available	<input type="checkbox"/> yes	<input type="checkbox"/> no	<input type="checkbox"/> NA
PSD Operator(s)	<input type="checkbox"/> yes	<input type="checkbox"/> no	<input type="checkbox"/> NA
Helicopter Manager(s)	<input type="checkbox"/> yes	<input type="checkbox"/> no	<input type="checkbox"/> NA
Helibase Manager	<input type="checkbox"/> yes	<input type="checkbox"/> no	<input type="checkbox"/> NA
Parking Tender(s)	<input type="checkbox"/> yes	<input type="checkbox"/> no	<input type="checkbox"/> NA
Fire Protection Group	<input type="checkbox"/> yes	<input type="checkbox"/> no	<input type="checkbox"/> NA

Additional reminders:

_____ ☐ yes ☐ no

_____ ☐ yes ☐ no

_____ ☐ yes ☐ no

Estimated cost: _____

Location of aircraft: _____

Briefing Checklist

Discussion Items: Pre-flight discussion points to be briefed with all.

Items that are not being met below require justification and may require a new risk assessment.

The project supervisor is responsible for this per the Project Aviation Safety Plan.

<input type="checkbox"/> Clear and bright complete-fuel sample (If vendor fuel truck is used)	<input type="checkbox"/> Fuel planning (fuel truck not on on-site)	<input type="checkbox"/> Aircraft still meets mission objectives (equipment and performance capabilities)
<input type="checkbox"/> Load calculation(s)/Weight and Balance (Complete and adjusted as needed)	<input type="checkbox"/> Manifest(s) and briefings	<input type="checkbox"/> Risk assessment still applicable to mission objectives
<input type="checkbox"/> Aerial hazard and site map available and reviewed for specific project hazards	<input type="checkbox"/> Project site conditions evaluated (sending and receiving)	<input type="checkbox"/> Crash rescue and medivac plan procedures reviewed
<input type="checkbox"/> Equipment inspected (sling gear, nets, swivels, and others)	<input type="checkbox"/> Airspace de-conflicted (if required)	<input type="checkbox"/> Hazardous materials addressed per Interagency Aviation Transportation of Hazardous Materials Guide (NFES 1068) and SDS.
<input type="checkbox"/> Communication and contact information plan reviewed	<input type="checkbox"/> PPE and Aviation Life Support Equipment (ALSE) Handbook requirements met	<input type="checkbox"/> Personnel assignments identified, individual qualifications/aviation training verified
<input type="checkbox"/> Flight follow procedures	<input type="checkbox"/> Required Go/No-Go check lists completed pending mission type	<input type="checkbox"/> Weather briefing complete

Briefing Notes:

Plastic Sphere Dispenser Use Record

Machine Number and Manufacturer_____

Date: ____/____/____ Location/Project:

Operator: _____ Acres treated: _____ Spheres used: _____

Problems encountered:

Maintenance performed:

Resupply needs:

Order/purchase date: ____/____/____

Comments:[illegible]

The record is continued on the next page.

PSD Use Record

(Continued)

[illegible]

Aerial Ignition Device Additional Training	
Trainee	
Unit	
Specific Device Training (for example, Red Dragon)	
Date of Classroom Training for Specific Device	
Training Location	
Instructor	
Device which Originally Completed Position Task Book (PTB)	
Instructor Comments:	
<p>Purpose of Additional Device Training: to show additional aerial ignition devices in which the operator has received classroom training and is certified to operate. An initial PTB must have been completed and the user showing qualified as PLDO/HTMG/HTMM/HTPT within the IQCS/IQS system. This does not replace the PTB.</p>	
Instructor Home Unit and Contact Information	

Instructor Signature

Date

LIST OF MANUFACTURERS AND CONTACTS FOR AERIAL IGNITION SPHERES AND REPAIR SERVICES

Fire Ignition Resources, LLC

7151 Horns Valley Road
Talladega, AL 35160
Phone: (256) 354-0048 business line, text or leave voice mail
Cell: (706) 773-5749 John Stivers
fireignitionusa@gmail.com
www.PremoFireUSA.com

SEI INDUSTRIES LTD, RED DRAGON

7400 Wilson Avenue
Delta B.C. Canada V4G 1E5
Phone: 604-946-3131
Fax: 604-940-9566
seisales@sei-ind.com www.sei-ind.com

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www.typeoneproducts.com

RAINDANCE R3

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Camarillo, CA 93012
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<https://www.raindancesystems.com.au>