

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/Safety GO/NO-GO Checklist*
- PSD Project Aviation Safety Plan
- 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/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>

NOTE: * INDICATES REQUIRED FORMAT

Optional Document

- 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. The process is simple. 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 covering the pertaining 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. A template for Forest Service and Department of Interior is available to aid in this process.

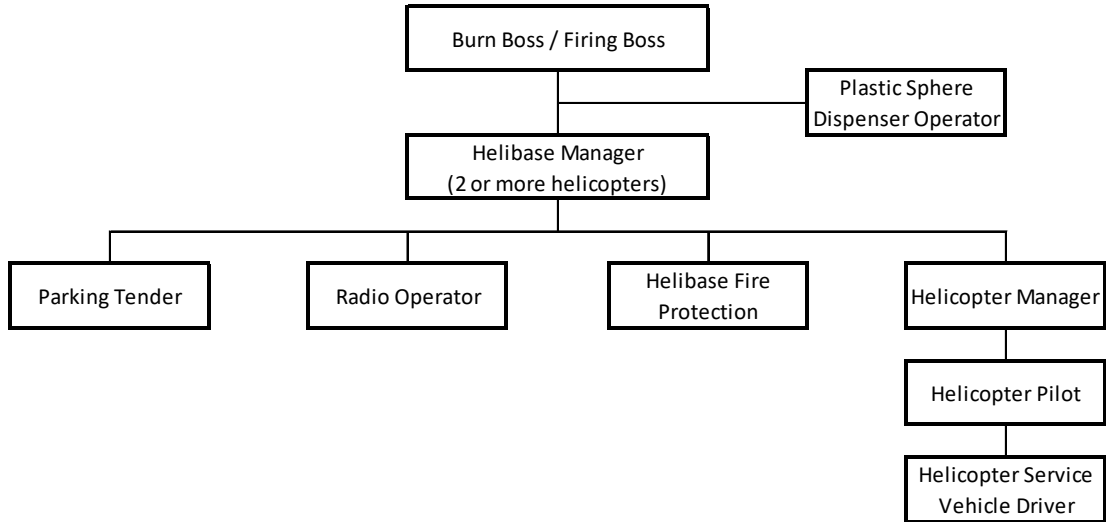
Example agency-specific PASPs/MASPs are available at <https://www.nwcg.gov/committees/interagency-aerial-ignition-unit>.

PSD Air Operations/Safety GO/NO-GO Checklist

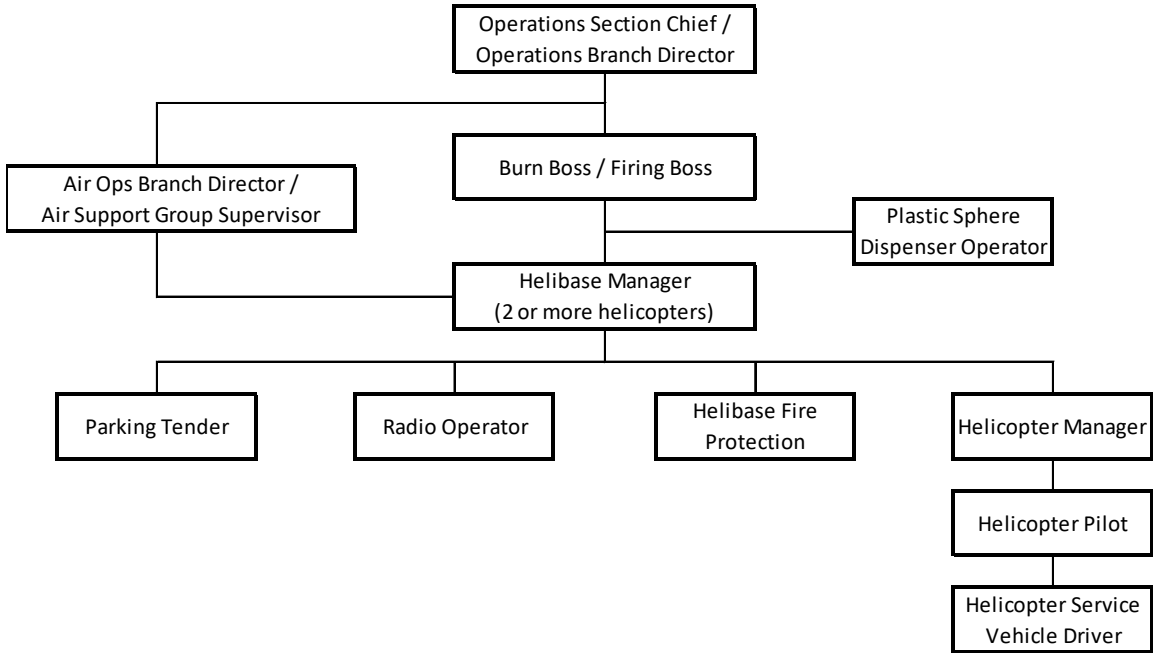
The helicopter operations on this project require the use of this checklist. If all items are not checked as satisfactory and maintained in that state for the duration of the mission, flying operations will be suspended until the deficiency is mitigated.

HELIBASE SAFETY		
GO	NO/GO	
		Approved Project Aviation Safety Plan.
		Qualified Helibase Manager assigned (if necessary).
		Helibase/helispot meet established standards.
		Organizational chart posted, assignments known.
		Communication chart posted. Frequency assignments known.
		Helibase/helispot fire protection meets established standards.
		Crash rescue/evacuation kits on the helibase/helispot.
		Current Mishap Response Plan posted at helibase/dispatch and ready to implement
		All personnel briefed. Aerial ignition personnel briefed on in-flight operations.
		Personnel protective equipment meets established standards.
		Flight hazard map posted/ hazards known to pilot.
AIRCRAFT/PILOT(S)		
		Check pilot and aircraft approval cards, qualified for mission?
		Check pilot and aircraft limitations.
		Load calculations prepared, reviewed, signed, and posted.
		Check aircraft radios, frequencies programmed?
		Remove ALL loose articles from aircraft.
		Fire shelters for each occupant must be carried in the aircraft and 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, downwind turns, etc.
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/Operator's manual on board aircraft (optional).
BURNING OPERATIONS		
		All persons briefed and assignments known.
		Maps/photos of project area used/posted.
		Special weather considerations known/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/PERSONNEL		
		Adequate support equipment/personnel to complete mission.
		Pump/engine operational checks.

Plastic Sphere Dispenser Organization – Prescribed Fire



Plastic Sphere Dispenser Organization – Wildland Fire



The following forms are optional.

PSD Aerial Ignition Preplanning Checklist

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

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/site map available and reviewed for specific project hazards	<input type="checkbox"/> Project site conditions evaluated (sending and receiving)	<input type="checkbox"/> Crash rescue & medivac plan procedures reviewed
<input type="checkbox"/> Equipment inspected (i.e. sling gear, nets, swivels)	<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:		

Aerial Ignition Device Additional Training

Trainee	
Unit	
Specific Device Training (e.g. 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 Position Taskbook (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 MANUFACTURES 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

Aerial and Ground Ignition Products
Type One Incident Support Inc.
PO Box 8209 Bend, OR. 97708-8209 USA
Tel: 541-330-4341
Support@typeoneproducts.com
www.typeoneproducts.com

AEROSTAT, INC.

8830 Airport Blvd
Leesburg, FL. 34788
Tel. 352-787-1348
Fax 352-787-4666
<http://www.aerostatinc.com>

RAINDANCE R3

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