

## FERMILAB AVIATION SAFETY POLICY

### 1.0 INTRODUCTION

This policy applies to all organizations that request aviation services or sponsor events that may impact civilian aviation and those who arrange for and/ or coordinate landings, over flights and passenger use of aircraft. The Directorate must approve any deviations from the policy described below.

This policy does not apply, in part or whole, to situations involving medical emergencies on site. In such cases, operational decisions (including choice of landing site) will be deferred to the discretion of the Fermilab Incident Commander. Instructions on handling medical evacuations can be found in the Fire Department emergency procedure FD-EO-320 (Medical Helicopter Evacuation Procedures).

### 2.0 RESPONSIBILITIES

#### 2.1. Approvals

2.1.1 Any organization that arranges for, or coordinates the use of aircraft will initiate and complete a [Flight Request and Mission Profile Form](#) (Form F9030/ 1) and shall comply with all lead times as specified on the form. This form can be obtained from the [ES&H Section web page as a PDF file under the "Manuals and Procedures" 9000 series link/ Forms](#). This form also identifies mission flight hazards and provides controls.

2.1.2 Once completed, Form F9030/ 1 must be forwarded to ESH Admin at MS-119 (WH7E) for processing. See the "Aviation Mission Flow Chart" at the end of this chapter for a pictorial of the process.

2.1.3 The administrative group of the ES&H Section will post to the ES&H web page under the "Health and Safety/ Aviation Safety" link all directorate approved missions in Portable Document Format (PDF) and will notify the DOE-FSO that a new mission profile is posted.

#### 2.2. Notifications

2.2.1 Any organization who arranges for, or coordinates the use of aircraft shall notify various groups of the impending operation. Notification shall be made as soon as the requester receives the information and as late as three hours before TOT (Time on Top). Provide mission profile, type of aircraft and estimated time of arrival of the aircraft  $\pm$  one hour. See the Notification Table below or alternatively, an e-mail message

may be sent to [avops@fnal.gov](mailto:avops@fnal.gov). This computer distribution list resides in the list server and will deliver your message to the same organizations listed in the Notification Table below.

<b>T1 Notification Table</b>
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Office	Email/ Phone number or extension
DOE- Fermi Site Office	John.scott@ch.doe.gov/ Ext. 3281
Fermilab Fire Department	Ext 3428
Communications Center/ Security	Ext. 3414 or ext 4251
ESH Section Admin	Esh_admin@fnal.gov/ Ext. 5811
Office of Public Affairs	Ext. 3351

### 3.0 PROCEDURES

#### 3.1. Aviation Service Purchase

3.1.1 Before entering into a purchase order to charter aircraft of any type from a CAS provider, the selected service must be authorized by the DOE Office of Aviation Management. The name of the aviation services provider must appear in the list of providers found in the spreadsheet. The latest spreadsheet can be found published in the ESH Section Document Database as document #434. This applies to providers operating under 14CFR Part 91 or 135 but excludes scheduled air carriers operating under 14CFR Part 121.

*Note 1: Third party CAS providers are included even though Fermilab may not have a direct business relationship or a direct contract for the purchase of services. For example, a photographer is hired by Fermilab who in turn hires a CAS provider. The CAS provider must be in the authorized US DOE list.*

3.1.2 Unless otherwise specified, all aviation operations purchased will be conducted during daylight hours and will strictly adhere to, and comply with, FAA Regulations.

3.1.3 Before mission operations commence, the person responsible for the aviation charter-service purchase will obtain the model of the aircraft, name of the aircraft operator and telephone number, name of the pilot in command and the estimated time of arrival at Fermilab. This will allow for any last minute coordination in case of changing conditions.

3.1.4 Fermilab employees, users and visitors will not ride as passengers in aircraft doing work for Fermilab or a Fermilab subcontractor unless previously authorized as "essential" by the Directorate. List mission essential employees by name and employee number in the back of Form F9030/ 1 in the space provided for DOE ASSOCIATED PERSONSON BOARD.

3.1.5 All Fermilab employees who are qualified non crewmembers and on chartered aircraft will be required to receive a passenger safety briefing given by the Pilot-in-Command (PIC) prior to flight.

3.1.6 When BSS/ Procurement places a purchase order that includes the use of a helicopter, every attempt shall be made to make use of the nearby DuPage Airport facility and avoid landings and take-offs from the Fermilab site unless prior authorization is granted by the Directorate with the approval of Form F9030/ 1.

## **3.2 Helicopter Medevac Training for Fire Department Personnel**

3.2.1 Periodically, Fire Department personnel require refresher training on medevac procedures of seriously injured patients. This training is designed to hone skills in landing, loading and coordination/ assistance to flight medical personnel. This is accomplished by arranging visits from the various air ambulance services that operate in the ChicagoLand area such as Rush-Presbyterian, the University of Chicago system and the Northern Illinois Medical Center. Fermilab supports and encourages these visits.

3.2.2 The Fire Chief is given blanket authority to arrange for these visits as necessary and to land the helicopter on the field across from the firehouse as long as the following conditions are met:

- a) Flight conditions must be VFR (Visual Flight Rules).
- b) The Fermilab Fire Chief or Battalion Chief will make courtesy notifications using the contacts in the Notifications Table as soon as the information becomes available (See requirements under the NOTIFICATIONS paragraph).
- c) No Fermilab employee is allowed to ride on the helicopter unless specifically authorized in writing by the Directorate.
- d) The Communications Center will notify Security.
- e) If the mission profile changes due to weather or other external emergencies notification must be made again to the Communications Center as soon as the change occurs. The Communications Center will then notify Security of the change in mission profile.
- f) Preparation for on-site helicopter landings and take-offs- The Fermilab ES&H Guideline "Helicopter Landings SOP" (Appendix 1) at the end of this chapter will be followed in preparation for helicopter landings and take-offs.

### 3.3 . Designated Landing Site

3.3.1 There are no facilities to land fixed wing aircraft. Such operations will utilize the facilities of one of several local municipal airfields.

3.3.2 The Anthony Frelø Field, commonly called the Barnstormers Site on Old Batavia Road, geographical coordinates N41° 51' 03" x W88° 15' 25" , is designated as the Fermilab helicopter landing site. A secondary landing site is the paved area or grassy strip east of the Firehouse where enhanced fire fighting capabilities are available. For safety and support reasons, only the designated locations described in this procedure are to be used for helicopter landings and take-offs other than landings for Medevac training as stated under subparagraph (B) of this section.

3.3.3 Emergency Medevac helicopters can land on any open area on Fermilab property designated by the Incident Commander to expedite extrication of an injured party. All safety procedures must be observed. Close coordination between the Fire Department and the Security Department is of the utmost importance to protect bystanders and other vehicular traffic during the resolution of the emergency.

### 3.4 Office of Public Affairs

3.4.1 When contacted by news organizations, helicopter or fixed wing aircraft flights by these or other organizations wishing to loiter over Fermilab airspace must be made aware of Notice to Airmen (NOTAM) FDC 4/ 0811. This NOTAM advises pilots to avoid the airspace above, or in proximity to sites such as power plants (Nuclear, Hydro-Electric or Coal), Dams, Refineries, Industrial Complexes, Military Facilities and other similar facilities. Fermilab is considered an industrial complex.

3.4.2 Loitering may trigger an intercept by military aircraft. If intercepted, pilots must follow the procedures in the [FAA Airman Information Manual \(AIM\) Chapter 5, Section 6](#), Paragraph 5-6-2. It is recommended that these operators maintain radio contact with the nearest Flight Service Station or air traffic control facility and advise them of their activities to avoid a possible intercept.

### 3.5 REPORTS

3.5.1 Once the aviation services are provided and paid for, the requester shall forward to the Aviation Safety Officer (MS-119) a report with the data elements stated below , a copy of the purchase requisition and a copy of the invoice from the CAS provider:

Data Element	Definition
(m)= mandatory data element. All other elements may be reported if the information is available.	
Agreement Begin Date (m)	Date on which the type of service that includes use of charter aircraft,

	contract aircraft, rental aircraft, and related activities in support of an executive agency, starts.
Agreement Comment	Relevant remarks which add clarifications to the aircraft CAS Cost and Hours Flown information.
Agreement End Date	Date on which the type of service that includes use of charter aircraft, contract aircraft, rental aircraft, and related activities in support of an executive agency, ends.
Agreement Number	Reference number for the type of service that includes use of charter aircraft, contract aircraft, rental aircraft, and related activities in support of an executive agency.
Agreement Type (m)	Indicates the type of commercial aviation service in support of an executive agency, i.e. charter, full service contract, rental, ISSA, and lease.
Flight Time (m)	The amount of time, expressed in hours and tenths of an hour, from when the aircraft moves under its own power for the purpose of flight and ends when the aircraft comes to rest after landing.

<p style="text-align: center;">Alert Ground Utilization Time (new)</p>	<p>That time, expressed in hours and tenths of an hour, an Alert Aircraft is:</p> <ol style="list-style-type: none"> <li>1. Airworthy and not being utilized to meet other program needs,</li> <li>2. Not undergoing any maintenance (including inspection), modification, testing, calibration or alteration.</li> </ol> <p><b>Alert Aircraft:</b> An operational government aircraft that is configured (including any mission equipment) and dedicated to meet a mission that requires a rapid response with a flight crew and essential personnel, if applicable, readily available for departure.</p>
<p style="text-align: center;">In-House Cost</p>	<p>Operating expenses provided by the using Government agency that benefits from the commercial service, such as pilot and fuel expenses. For ISSA agreement, in addition to reporting the in-house costs, the benefiting (operating) agency/ bureau must report all costs (fuel, crew , etc.) incurred to the owning agency/ bureau that, in turn, will report these costs to FAIRS.</p>
<p style="text-align: center;">ISSA Vendor Agency</p>	<p>Identifies any executive department or independent establishment in the executive branch of the Government, including any wholly owned Government corporation, which is providing the service, i.e., the ISSA provider (Federal). (Only use for agreement type, ISSA )</p>
<p style="text-align: center;">ISSA Vendor Bureau/ Office/ Service</p>	<p>Identifies the reporting subunit within the executive agency, i.e., the ISSA provider.</p>
<p style="text-align: center;">Manufacturer (m)</p>	<p>Identifies the original manufacturer of the aircraft as designated on the aircraft data plate.</p>
<p style="text-align: center;">Mission (m)</p>	<p>Represents the principal purpose for which the aircraft was dispatched. One mission may be designated per sortie (one take off and landing).</p>
<p style="text-align: center;">Model (m)</p>	<p>Identifies the model of the aircraft as</p>

	designated on the aircraft data plate.
Paid-Out Cost (m)	Operating expenses paid out to commercial or other Government agency providers of the CAS. Paid-out costs include operations and administrative overhead costs allocated to the CAS.
Registration Mark	Identifies the unique identification mark--usually numbers and letters--displayed on Government aircraft (including foreign aircraft hired as CAS). "Tail number" is commonly used for "registration mark". For Fermi purposes use the aircraft registration number.
Report Period Begin Date (m)	Beginning date of the period for which the CAS or Fleet Aircraft cost and hours flown data are submitted. This is the date for which agency costs begin to accrue, regardless of ownership or other agency use.
Report Period End Date(m)	Ending date of the period for which the CAS or Fleet Aircraft cost and hours flown data are submitted. This is the date for which agency costs cease to accrue, regardless of when paid or disbursed.
Vendor Name	Name of vendor hired to perform mission.
Vendor Location	Location of vendor hired to perform mission.

3.5.2 The Aviation Safety Officer will submit quarterly reports to the DOE-Fermi Site Office detailing aviation activities for the prior three months. These reports are due within seven (7) calendar days after the quarter ends.

## 4.0 DEFINITIONS

4.1 Commercial Aviation Services (CAS) – Include leased aircraft and aircraft chartered or rented for exclusive use.

4.2 Charter Aircraft – An aircraft operated and maintained by a commercial aviation service provider that is hired by Fermilab under a contractual agreement specifying performance and a one-time exclusive use.

4.3 Crew Member – A person assigned to operate or assist in operating a Government aircraft during flight time. Crew members perform duties directly related to the operation of the aircraft such as pilots, co-pilots flight engineers and navigators.

4.4 Flight Crew Member – A pilot, flight engineer, flight navigator or cabin safety personnel assigned to duty in an aircraft during flight time.

4.5 Government Aircraft – Any (Federal or Commercial Aviation Service) aircraft owned, leased, chartered, or rented by an executive agency other than a branch of the Armed Forces or an intelligence agency.

4.6 Mission - The objective that must be accomplished by the chartered flight. Fermilab missions are aerial photography of the site, photogrammetric surveys and aerial surveillance of the deer population.

4.7 Passenger – Any individual on-board an aircraft who is not a flight crew member, crew member, or qualified non-crew member.

4.8 Qualified Non-Crew Member – A person flying onboard a Government aircraft whose skills, duties or expertise are essential to performing, or associated with performing the (non-travel related) Governmental mission requirement for which the aircraft was dispatched. Qualified non-crew members may be researchers, electronic technicians, system operators, photographers, emergency medical personnel, biologists, etc.

**Appendix 1**  
**HELICOPTER LANDINGS**  
**Standard Operating Procedure**

**1. Purpose**

To establish and coordinate support operations for implementing the Fermilab Aviation Safety Policy.

**2. Scope**

These procedures outline the responsibilities of Fire, Security and CommCenter personnel as they relate to helicopter routine overflights, landings and take-offs at the Fermilab site.

**3. Designated Landing Sites**

The Anthony Frelø Field, commonly called the Barnstormers Site, on Old Batavia Road, geographical coordinates N41°51' 03" x W88° 15' 25" , is designated as the preferred Fermilab helicopter landing site. A secondary site is the paved road in front of the Fermi Fire House or the grassy area located immediately east of the fire house.

**4. Operational Responsibilities**

4.1 When notified of a planned helicopter landing, the Fermi employee who requested the services will advise the Communication Center of the details of the operation.

4.2 The Communication Center will notify the Security group.

4.3 The Fire Department On-Duty Battalion Chief will detail a minimum of one firefighting vehicle, a driver and a firefighter to be present at the helicopter landing site 15 minutes before the scheduled landing and at all times during take-offs. When landing on the grassy area east of the firehouse, the Fire Department Battalion Chief with the assistance of the Security detail will ensure the area is clear of any Foreign Object that may cause injury to personnel or damage to the helicopter turbine/ s (FOD) if blown by the helicopter downwash during landing or takeoff.

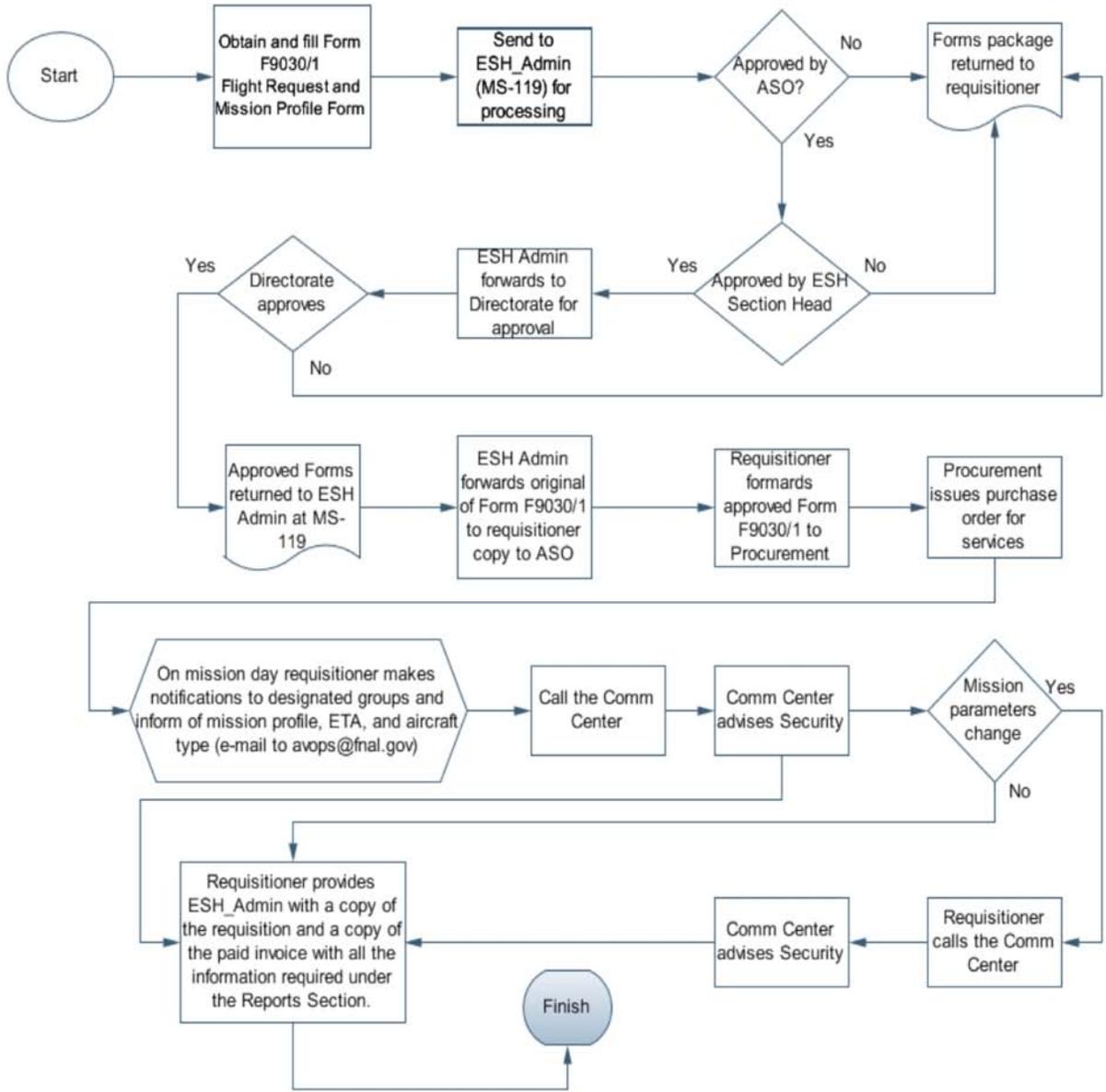
4.4 Security Department SOPs

4.4.1 The duty supervisor is responsible to ensure that the helicopter landing site demarcation flags are properly placed a minimum of one hour and no more than three hours prior to scheduled landing.

4.4.2. A minimum of three security officers will be detailed to the landing site during all routine helicopter landings and take-offs to enforce ground safety requirements and control traffic and pedestrians as necessary.

4.4.3 The Shift Commander shall conduct a FOD (Foreign Object Damage) debris walk of the landing site no more than one hour nor less than one-half hour prior to a scheduled landing.

Aviation Mission Profile Flow Diagram



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