PROJECT AVIATION SAFETY PLAN

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Primary/Host Agency: (Identify)  X USFS Unit: Rocky Mountain Regional Office  BLM Unit: | | | Interagency Operation:  Yes  X No | | |
| X Fire Operation (Training) X Resource Operation  Law Enforcement Operation | | | X Fixed Wing Operation  Helicopter Operation | | |
| Type of Flight | Point to point: | X Special Use:  Mission Flight | X Reconnaissance: | Other: | |
| X New Project, full review required | | | Currently approved project/activity, FYI to Regional personnel | | |
| Project Name: MAFFS Drop Site Reconnaissance | | | Anticipated Project Date: | | |
| Project Plan Prepared by Name of Preparer: | | | Title: | | Date: |
| Project Plan Reviewed by: | | | Title: Unit Aviation Manager | | Date: |
| Project Plan Reviewed by: | | | Title: | | Date: |
| Project Plan Approved By: | | | Title: | | Date: |
| **Project Description: Include (Flight Objectives to Achieve Mission)**    The Project*: A brief “executive summary*  **Supervision**: *Leadership and supervisors are actively engaged, involved and accessible for all teams and personnel. There is a clear chain of command?*  Identified Hazards:  **Planning**: *There is adequate information and proper planning time. JHA’s are current and have been reviewed and signed by all levels. All required equipment, training, and PPE has been provided?*  Identified Hazards:  **Contingency Resources**: *Local emergency services can be contacted, available, and respond to the worksite in a reasonable amount of time. Examples: Do you have an emergency or medical evacuation plan?*  Identified Hazards:  **Communication**: *There is established two-way communication throughout the area of operations. Radios should always be your primary means of communication. You should know your area of coverage, Identify flight following method?*  Identified Hazards:  **Team Selection**: *Level of individual training & experiences. Cohesiveness and atmosphere that values input/self-critique?*  Identified Hazards:  **Team Fitness**: *This includes physical and mental fitness. Team members are rested, engaged, and overall morale is good. The team is mindful and has a high level of situational awareness?*  Identified Hazards: None  **Environment**: *Extreme temperatures, elevations, difficulty of terrain, long approaches and remoteness, not excluding the office environment?*  Identified Hazards:  **Project/Work Complexity**: *Severity, probability, and exposure of mishap. The potential for incident that would tax the current staffing levels?*  Identified Hazards: | | | | | |

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**ADMINISTRATIVE INFORMATION**

Point of contact for the project:

Name:

Phone:

Email:

Charge Code:

Aircraft Information:

Make and Model: N# Vendor:

Pilot Name: Phone:

Aircraft card current? Yes No

Pilot card current and qualified for mission? Yes No

**FREQUENCY INFORMATION**

|  |  |  |  |
| --- | --- | --- | --- |
| National Flight Following | Rx 168.650 | Tx 168.650 | Tx Tone: 110.9 |

**Local Frequencies utilized**

|  |  |  |  |
| --- | --- | --- | --- |
| Name | Rx | Tx | Tone |

**RESOURCE TRACKING INFORMATION**

Dispatch Center(s) tasked with flight following:

**ITINERARY**

|  |  |  |  |
| --- | --- | --- | --- |
| **Departure Airport**  **Or Lat/Long** | **Date and Time of**  **Departure** | **Destination Airport**  **Or Lat/Long** | **Purpose of landing** |
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**AIRSPACE MANAGEMENT**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| MTR | Segment Flight Level | Activity | Time | Time Zone |
| IR: |  | Hot Cold | Start Stop | UTC MST |
| IR: |  | Hot Cold | Start Stop | UTC MST |
| VR: |  | Hot Cold | Start Stop | UTC MST |
| VR: |  | Hot Cold | Start Stop | UTC MST |
| MOA information | | | | |
|  |  | Hot Cold | Start Stop | UTC MST |
|  |  | Hot Cold | Start Stop | UTC MST |
| Aerial Refueling Routes | | | | |
|  |  | Hot Cold | Start Stop | UTC MST |
|  |  | Hot Cold | Start Stop | UTC MST |
| NOTAM (D) to be developed for the project:  yes X no | | | | |

**PASSENGER INFORMATION**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Passenger Name**  **(\*Flight Manager)** | **Weight** | **Baggage Wt.** | **Grade Level** | **Agency** | **Notes** |
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**PPE REQUIREMENTS**

**Nomex flight suit or Nomex pants and shirt: Yes No**

**Nomex gloves or leather gloves: Yes No**

**Flight Helmet: Yes No**

**8” top leather boots: Yes No**

**Other?**

**Attach any supporting documentation:** *Day trip authorizations, flight strip, ALSE Waiver etc…*

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **SYSTEM SAFETY RISK ASSESMENT MATRIX**   |  |  |  |  |  | | --- | --- | --- | --- | --- | |  | **SEVERITY** | | | | | **LIKELIHOOD** | **Negligible** | **Marginal** | **Critical** | **Catastrophic** | | **Frequent** | **Medium** | **Serious** | **High** | **High** | | **Probable** | **Medium** | **Serious** | **High** | **High** | | **Occasional** | **Low** | **Medium** | **Serious** | **High** | | **Remote** | **Low** | **Medium** | **Medium** | **Serious** | | **Improbable** | **Low** | **Medium** | **Medium** | **Medium** |   **-Steps 1 & 2:** Identify and describe the hazards present for this project. Assess the **Likelihood** of an occurrence of each hazard and determine the potential **Severity** of the outcome by referring to the definitions at the System Safety Matrix site. Click on this link: [http://www.fs.fed.us/fire/av\_safety/Systems\_Safety/av\_risk\_mgt/matrix.pdf](http://www.fs.fed.us/fire/av_safety/Systems_Safety/av_risk_mgt/index.html) and then click the link to the **Risk Assessment Matrix**.  Once you have identified the likelihood and severity, determine the **Risk Level** using the matrix above.  **-Step 3:** Identify the mitigation controls to follow that will reduce the **Likelihood** of a hazard occurrence. **\*\*Remember**, the severity will likely remain the same as first determined. The mitigations generally only affect the likelihood of an occurrence. Once you have established the mitigations and changed the likelihood, determine the post-mitigation **Outcome**   | Describe Hazard:  **Pre-Mitigation hazards rate out as:** | **Likelihood** | **Severity** | **Outcome** | | --- | --- | --- | --- | |  |  |  |  | |  |  |  |  | |  |  |  |  | |  |  |  |  | |  |  |  |  | | Mitigation Controls:  **Post-Mitigation hazards rate out as:** | **Likelihood** | **Severity** | **Outcome** | |  |  |  |  | |  |  |  |  | |  |  |  |  | |  |  |  |  | |  |  |  |  |  Total Risk Assessment Value (The highest risk level identified from the System Safety Assessments and the above determined risks shall be applied as the overall total risk value): **Low Medium Serious** **High**  **Project Justification Statement:** This project cannot be accomplished by any other means. The area that will be flown has very limited road access primarily in a wild and scenic river corridor. The type of terrain and vast amount of area that needs to be covered makes foot traffic impossible.    **Step 4:**  **Make Risk Decision –** weigh the risk against the benefit of performing the operation. From the determined overall risk, a determination must be made to conduct the operation as planned, apply further controls that may reduce the overall risk further, or not to perform the operation.  **Line Officer Initials: \_\_\_\_\_\_\_\_\_\_ certifying that the level of risk is appropriate.** |

**MAP(s) OF PROJECT SITE:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Job Risk Analysis Reminder List (check appropriate boxes) | | | | |
| Is there an alternative method that would accomplish the mission more safely? | | Yes | No | NA |
| Is everything approved with clear instructions? | | Yes | No | NA |
| Are communications and flight following established? | | Yes | No | NA |
| Can terrain, altitude, temperature or weather that could have an adverse effect be mitigated? | | Yes | No | NA |
| Will the mission be conducted at low levels? (Below 500’ AGL) | | Yes | No | NA |
| Can the same objective be achieved by flying above 500’ AGL? | | Yes | No | NA |
| Are all aerial hazards identified and known to all participants? | | Yes | No | NA |
| Have mitigating measures been taken to avoid conflicts with military or civilian aircraft | | Yes | No | NA |
| Have adequate landing areas been identified and or improved to minimum standards | | Yes | No | NA |
| Are all agency personnel qualified for the mission? | | Yes | No | NA |
| Is the pilot carded and experienced for the mission to be conducted? | | Yes | No | NA |
| Are pilot flight and duty times compromised? | | Yes | No | NA |
| Is there enough agency personnel to accomplish the mission safely? | | Yes | No | NA |
| Will adequate briefings be conducted prior to flight? | | Yes | No | NA |
| Are all involved aware that the pilot has the final authority, but if any passenger feels uncomfortable, that they can decline the flight without fear of reprisal? | | Yes | No | NA |
| Is the aircraft capable of performing the mission with a margin of safety | | Yes | No | NA |
| Is the aircraft properly carded? | | Yes | No | NA |
| Do all personnel have the required PPE | | Yes | No | NA |
| Dispatch has checked military operations prior to operations Yes No | | | | |
| MTR’s and MOA’s | Check routes in advance. Practice risk management. | | | |
| Private aircraft | See and avoid. | | | |
| Airport traffic | Stay in radio contact, sterile cockpit | | | |
| Weather | Use weather advisory. Maintain VFR minimums. | | | |
| Terrain | Maintain separation. Do not place the aircraft in performance related situations. | | | |
| Low level obstacles | Complete a high level recon, no unnecessary low level flight operations. | | | |
| Unimproved landings | Recon LZ. Download on first load. | | | |
| Doors off helicopter operations | Use secondary restraining harness and protected blade raptor type knife. Remove loose items from cabin. | | | |
| Pilot not familiar with area | Supply hazard maps. Complete high level recon prior to low level operations. | | | |
| Noise, rotor wash | Wear ear and eye protection. | | | |
| Internal and external loads | Have trained personnel assigned to the mission. Follow agency policies. | | | |
| Unplanned aircraft events | All personnel equipped with PPE, survival gear and trained in crash procedures. | | | |
| Hazardous materials | Trained personnel will identify, manifest and insure that the pilot is aware. | | | |
| Non aviation personnel | Maintain control, provide through briefings. | | | |
| Communications | Maintain communications at all times, establish backup options and acquire alternate frequencies. Take a handheld FM radio on each flight. Call in prior to landing. If radio contact is lost, climb, check tones, etc. If unable to re-establish contact, return to best suitable landing area and check in via landline. | | | |
| Overload conditions/CG issues | Complete accurate load calculations and or weight and balance. | | | |
| Winter/cold weather operations | Utilize appropriate clothing for conditions, acquire and maintain a survival kit. | | | |
| Prop/rotor hazards | Pilot shall provide a safety briefing; approach and departures shall be away form hazards. | | | |
| Multiple aircraft operations | Provide adequate aerial supervision. Establish and maintain separation, utilize common frequencies. | | | |
| Aircraft Refueling | Refueling is the responsibility of the vendor/pilot. Agency personnel shall not be on board. Aircraft shall be shutdown, unless rapid refueling is approved and requested by agency personnel. | | | |

**GO/NO GO Considerations (to be checked prior to departure)**

# PROJECT MANAGER PRE-OPERATIONAL CHECKLIST

|  |  |  |
| --- | --- | --- |
| Approved and signed project plan | Carded pilot | Carded Aircraft |
| Qualified Manager | Qualified Crewmembers | Hazards Identified |
| Maps of areas/sites | Notify Dispatch | Weather |
| MTR’s MOA’s | Brief Pilot | Brief Passengers |
| PPE | Load Calc or Weight and Balance | Weights of passengers and equipment |
| Fuel Planning | Fuel Truck Locations | Permission to land/utilize areas |
| Radio Frequencies / Tones | Hobbs Start/End | Day/Survival Packs |
| Handheld Radios | Satellite Phones | Puke Bags |
|  | | | |

**WEATHER FORECAST:**

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|  |

**POST-BRIEFING PARTICIPANT SIGNATURES:**

|  |  |  |
| --- | --- | --- |
| Aircraft Manager: | Signature | Date: |
| Pilot: | Signature: | Date: |