

Wilderness Airstrip Operations and Maintenance Plan

Mahoney Airstrip

Salmon-Challis National Forest

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Introduction

This operations and maintenance plan has been developed in response to direction contained in the Frank Church-River of No Return Wilderness Management Plan, (revised 2003), Chapter 2, Aviation, Standards and Guidelines.

As stated in the above document, “[This Airstrip Operations and Maintenance Plan] will reflect the Goal to maintain these facilities to a safe operating standard but not enhanced over conditions typical of 1980. The O&M Plan will define the airstrip vicinity, establish baseline design standards for landing strip dimensions and safety areas, and address the retention and maintenance of ancillary facilities provided to accommodate public use within that vicinity.”

Location

The Mahoney Creek airstrip is located within the Frank Church – River of No Return Wilderness in the state of Idaho and at the eastern edge of Valley County. It is located on the west side of the Middle Fork of the Salmon River, about 4 miles north(downstream) from Little Creek Guard Station and about 9 miles downstream from Indian Creek airstrip. It is 38 miles northwest of Challis, ID, 58 miles southeast of McCall, ID and 106 miles northeast of Boise, Idaho. At midpoint on the airstrip the UTM is 4956482 N and 664651 E.

The Mahoney Creek airstrip is administered by the Middle Fork Ranger District, Salmon-Challis National Forest, Region 4. The airstrip is located in T 16 N, R 13 E, Sections 6 & 7 with a Latitude of 44-44-40, N and a Longitude of 114-55-12, W. Its FAA Identifier is U54.

History of the Airstrip

On August 27, 1932 a plat was completed to construct an airstrip 28 chains long by 6.6 chains wide. The site was selected to be “one unit in a system of emergency landing fields covering the Central Idaho Forests”. “The purpose of selection was for fire protection purpose”. Ed Budell of Nampa, Idaho wrote in “How a Mountain Airport was first built and used”. He wrote that in the fall of 1932, two of them with a pack outfit and two workhorses went to the mouth of Mahoney Creek. They set up a camp to build a new airport on Mahoney Bar on the Middle Fork of the Salmon River. First thing they did was grub out the largest sagebrush. Then with the team of workhorses they plowed the entire runway field. They had a small Fresno with which they moved the highest knolls. Then they built a drag float out of timbers from up Mahoney Creek, the size two horses could pull easily enough. With this outfit they smoothed the field. They got all this done in the same fall. In 1955 the airstrip was 2,100 feet in length.

In 1998 the average number of landings was 150. No accident history was located or landings and takeoffs.

Researching the NTSB website data from 1962 to 2006, two accidents were identified with the airstrip.

- On July 18, 1967 a Stinson 108 lost power on takeoff and the flight was aborted. There were no fatalities.
- On September 14, 1982 there two fatalities when a pilot crashed a de Havilland DHC-II about 300 feet below a windy ridge on the northwest face. The autopsy report said he had an occlusive coronary arteriosclerosis, left coronary artery. He had been under a stress program and taking medication for high blood pressure.

Management Objectives for the Airstrip

Management goals, objectives, standards and guidelines for wilderness airstrips can be found in the Frank Church-River of No Return Wilderness Management Plan (revised 2003), Chapter 2, Section V – Aviation, which is an amendment to the Salmon and Challis National Forest Resource Management Plans. Specific goals, objectives, standards and guidelines from the wilderness management plan will be referenced in this document in the sections to which they pertain.

Description of the Airstrip (include all FAA inspection info)

The elevation of the Mahoney Creek airstrip is 4,618 feet (1407.6 meters). The runway has a length of 2,150 feet and a width of 30 feet. The runway sets on a bench above the river with steep slopes on both sides of the bench. The runway slopes down hill in the direction headed down stream. The airstrip is a total of 10 acres, with ample space to turn around and with tie-downs. The runway itself is aligned at a northeast-southwest direction above the river. The surface of the airstrip is dirt, some grass, and small rocks. Though not badly rutted or eroded, the surface is rough with dips and bumps. There are no trees around the strip to create a hazard. The strip is not plowed of snow so it could become closed some during the winter months. A diagram of the airstrip is contained in Appendix A.

Airstrip Surface Improvements

At the Mahoney airstrip there are a total of eight (8) boundary markers. Four are in the shape of an “L” at each corner defining the runway. The other four are defining the edges of the length of the airstrip – two on each side. The markers are panels 3 feet wide by 5 feet long made of 2” planks and painted white. The panels are held down with rebar driven through each of the four corners. There is a typical fluorescent orange windsock located on the southeast side of the airstrip and at about midway along the length of strip. The windsock is mounted on a wood pole. There is a segmented circle on the ground below the windsock made with the same type of 3 foot by 5 foot wood panels that mark the runway. Also

present on the airstrip are four (4) sets of airplane tie-downs which are chains set in concrete. The tie-downs are an anchor for each wing and one for the tail. The tie-downs are in the aircraft parking area noted on diagram 1. There is no fencing around the airstrip. There are no noticeable improvements such as culverts or ditches to the airstrip made for water runoff.

Ancillary Facilities

There is a registration box adjacent to the parking area. A pit toilet with two walls and a stainless steel riser is about 150 feet to the west from the parking area. There are 7 posts for hitch rails but only two posts have a rail. A horse drawn grader is located by the airstrip for maintenance of the runway.

Use of the Airstrip & Support to Other Forest Service Programs

The Mahoney Creek airstrip is available for public use throughout the year, though it is not plowed of snow. The airstrip is maintained by the Forest Service. The amount of traffic on the airstrip is not monitored but in 1998 it was estimated to have 150 landings. The airstrip provides public access and egress for various types of recreational activities including hunting, whitewater boating, sightseeing, wildlife viewing, hiking/backpacking and backcountry flying. The airstrip may also be used by commercial river outfitters and aviation services to drop off and pick up gear, supplies and clients; however it does not have an easy access to the river for floaters who primarily use the Indian Creek and other airstrips. It is used heavily in the fall by fly in and stock based hunters who establish base camps near the airstrip. Forest Service and contract weed crews use the airstrip to treat weeds in the area.

When an air taxi operator is hired by the Forest Service to get into Mahoney it is almost always Middle Fork Aviation out of Challis, ID or sometimes Salmon Air out of Salmon, ID, because these taxi services are located in the same towns as the Salmon-Challis National Forest. When a private individual or group hires an air taxi service into Mahoney Creek, it is usually either Middle Fork Aviation, Salmon Air or McCall Air which bases out of Stanley, Salmon and McCall.

The state Fish and Game might use the airstrip to make checks on hunters in the area. They access and use a cabin on the Cougar Ranch state property, located to the east of the airstrip, by a shallow ford across the Middle Fork Salmon River.

Another use of the airstrip is for training flights or what are known as 'touch downs', where pilots land and take off to check off that they have landed there before, or 'touch and go's' where pilots practice landing and taking off. While this use is contradictory to the concept and spirit of the Wilderness Act and not encouraged by the Salmon-Challis National Forest, it has not been discouraged by either policy or direction.

Restrictions and Requirements for Use of the Airstrip

All special orders that apply to the Salmon-Challis National Forest managed portion of the Frank Church – River of No Return Wilderness also apply to the airstrips. See Appendix C for a summary listing of all of the special orders. Of particular note are the following restrictions and prohibitions gleaned from the Special orders:

1. Camping or allowing stock within 75' of either side or 500 'of either end of the airstrip is prohibited;
2. Overnight camping with stock at landing strips is limited to one night (Standard 9, Chpt. 2 – Aviation, FC-RONRW Mngt. Plan, 2003);
3. The possession or use of motorized equipment, including chainsaws, is prohibited;
4. The airstrip is located within the Middle Fork of the Salmon River Wild and Scenic River Corridor, therefore, all human waste must be packed out; fires must be built within a fire pan with a minimum of 3" sides and all ash packed out;
5. Group size is limited to 20 people and stock are limited to 20 animals
6. Camping is limited to 14 days in any area or campsite within a 5 mile radius;
7. There is a 14 day limit on storing equipment, personal property or supplies;
8. Possession, use or transport of hay, straw or mulch without having each individual bale or container tagged or marked as weed free is prohibited;
9. Possessing or using a wagon, cart or other mechanized transportation, including a game cart, is prohibited.

General Operating Procedures for Landing, Take-off, and Parking

The radio frequency for communicating at the airstrip and at neighboring backcountry airstrips within the Frank Church – River of No Return Wilderness is CTAF 122.9 MHz. The traffic pattern at the airstrip is left (airnav). There are no published instrument procedures at Bernard. Some nearby airports with instrument procedures include:

- KSMN – Lemhi Co. Airport (37 nm E)
- 6S5 – Ravalli Co. Airport (80 n NW)
- S80 – Idaho Co. Airport (82 nm NW)
- KMYL – McCall Municipal Airport (58 nm W)
- KSUN – Friedman Memorial Airport (90 nm S).

Most aircraft land from the down stream side and take off down stream. The airstrip slopes down hill from the upstream end to the down stream. Pilots prefer to land up hill and take off down hill. Both ends are open and it sets up on a bench so it has an easy access approach from both ends. Before landing the

pilot circles the airstrip to check for other aircraft using the runway and also to make sure it is clear of wildlife.

Wilderness Education / Visitor Contacts

Opportunities for onsite face to face wilderness education and visitor contacts is very limited to the infrequent visits by wilderness and river program staff – wilderness rangers and river patrol. Wilderness program staff usually visit the airstrip a couple of times in the fall to make contacts with hunters.

A trailhead registration box and kiosk board are located at the north end of the airstrip. The board and box are maintained annually by the boat patrol crew with various educational information posters and pamphlets which include information on Leave No Trace principles and practices and restrictions and prohibitions. The registration box contains a voluntary visitor registration log and pamphlets, and special orders are attached to the outside of the box.

There are some key wilderness education themes and messages to use in visitor contacts at Mahoney airstrip. The airstrip accesses the Middle Fork of the Salmon River, a federally designated Wild and Scenic River. Communicating the mandatory requirements related to the river corridor (listed in the requirements section of this document) are essential to the ability to enforce them and protect the riverine resource. Other key messages include wilderness rules and regulations, Leave No Trace principles and practices, and information on the effects of noxious weeds and techniques to limit their spread. Information on hazards such as giardia, poison ivy and rattlesnakes may also be helpful to the visitor.

Law Enforcement / Search and Rescue / Life Flight

Law enforcement actions would be conducted no differently than anywhere else in the Wilderness or on the Forest. Law enforcement actions need to be coordinated with and communicated to a Forest Law Enforcement Officer (LEO). Certified Forest Protection Officers (FPO's) can issue tickets if necessary. Incident Reports should be completed and submitted to the South Zone LEO.

If Forest employees are present during an emergency life threatening incident that requires a Life Flight, those incidents must be requested through and coordinated with Central Idaho Dispatch via Forest Service Radio.

Search and Rescue procedures are described in the Salmon-Challis National Forest Search and Rescue Plan. A copy of that Plan should be made readily available at the Bernard Guard Station house.

- “Coordinate and cooperate with local County Sheriff, State of Idaho, Federal Aviation Administration (FAA), and National Transportation and

Safety Board (NTSB) for such actions as search and rescue, removal of wreckage and emergency or temporary airstrip closures.” (Guideline 14, Chpt. 2 – Aviation, FC-RONRW Mngt. Plan, 2003)

Maintenance Needs for the Airstrip / Responsibilities and Skills / Tools for Maintenance

Airstrip

- “Manage and maintain airstrip dimensions, conditions and function to those existing in 1980 at the time of wilderness designation.” (Goal 4, Chpt.2 – Aviation, FC-RONRW Mngt. Plan, 2003)
- “Airstrip maintenance operations will adhere to the wilderness concept of using the “minimum tool”. Non-motorized methods will be used for recurring and routine maintenance, in conformance with general wilderness management policy and prohibitions against use of motorized equipment or types of mechanical transport.” (Standard 5, Chpt. 2 – Aviation, FC-RONRW Mngt. Plan, 2003)

Maintenance performed on the airstrip occurs in a three year rotation with two other Forest maintained airfields, Bernard and Indian Creek, which are also administered by the Middle Fork District. Each of the three strips is maintained once every three years. See Appendix B for the Maintenance matrix.

The Salmon-Challis National Forest Trails Program Coordinator has lead responsibility for scheduling and conducting maintenance tasks for the airstrips. That person is responsible for informing and coordinating with the Forest Wilderness Program Manager on planned activities. Both trails and wilderness program employees may participate in accomplishing the work. Additionally, airstrip maintenance work crews will be responsible for checking and maintaining the wind sock and it’s structure, tie downs, hitch rails, naturalization of campsites and pack out of trash and garbage.

The Mahoney airstrip is a heritage resource that has been determined to be not eligible for the National Register of Historic Places. Routine maintenance within the current airstrip footprint is allowed. However, if off-site barrow material is needed to fill-in holes/ruts, etc. a cultural resource clearance will be required in order to protect archaeological sites in the immediate vicinity.

Ancillary Facilities - Campsites & Outhouses, Information Board & Registration Box

- “Campsites at airstrips will be managed for primitive recreation use opportunities appropriate within wilderness.” (Goal 5, Chpt. 2 – Aviation, FC-RONRW Mngt. Plan, 2003)
- “Ancillary facilities – such as toilets, fire rings, aircraft tie-downs, information boards or horse handling facilities – provided to accommodate airstrip operations or recreation use activities in the vicinity of airstrips, will adhere to the wilderness management concept of “minimum requirements”. The Minimum Requirements Analysis for Facilities provides general guidance. For each airstrip, periodically review any facilities and maintain for retention or schedule removal, as dictated by this evaluation. ...The Idaho Historic Preservation Office, prior to implementation, will review O&M Plans.” (Standard 7, Chpt. 2 – Aviation, FC-RONRW Mngt. Plan, 2003)
- “Provide for voluntary registration of visitors accessing the area by air or using the public airstrips as destination points.” (Guideline 16, Chpt. 2 – Aviation, FC-RONRW Mngt. Plan, 2003)
- “Stock will not be left unattended on airstrips, unless authorized.” (Standard 17, Chpt. 2 – Aviation, FC-RONRW Mngt. Plan, 2003)

The Middle Fork River Patrol crews will be responsible for regular maintenance and cleaning of campsite areas and outhouses; maintaining signing and posting of special orders on the information board and registration box; and replacing and collecting voluntary registration sheets. They will coordinate with the Wilderness Program Manager in reporting issues and needs for these facilities. Additionally, the River Patrol will complete incident reports as needed, and issue violation notices if they hold FPO certification.

The Wilderness Program Manager will facilitate the resolution of issues, the acquisition of materials and supplies needed for maintenance activities, conduct periodic assessments of ancillary facilities for retention or removal and process voluntary registration sheets. They will also be responsible to annually contact the State of Idaho Transportation Department – Aeronautics Division to conduct inspection of the airstrip. The Aeronautics Division will provide windsocks when requested.

Inspections and Monitoring

“Annually the Forest Service and State of Idaho will coordinate and conduct scheduled inspections for (all seven (7)) designated public use airstrips operated and maintained by the Forest Service.” (Objective 5, Chpt. 2 – Aviation, FC-RONRW Mngt. Plan, 2003)

“Conduct use sampling at selected airstrips as a basis for estimating airstrip operations and to track use trends.” (F. Monitoring, Chpt. 2 – Aviation, FC-RONRW Mngt. Plan, 2003)

Indicators:

1. Total airstrip use levels including:
 - a. Number of aircraft landings by user type (Commercial, Private, Administrative)
 - b. Number of people per party
 - c. Types of use supported by aircraft
 - d. Length of stay
 - e. Number of aircraft at airstrip at any one time

2. Landing Strip Safety Inspection report ratings – Maintain fair or better rating

The Wilderness Program Manager will be responsible to annually contact the State of Idaho Transportation Department – Aeronautics Division to conduct an inspection of the airstrip. Airstrip inspections are conducted once every three years (Mark Lessor, Division of Aeronautics, 208-334-8895). The River Program Manager will be responsible for the design, implementation, analysis and summary of airstrip sampling.

Annual Maintenance Cost Summary

Estimated 2009 costs: Currently coming out of CMTL13

Jim Upchurch 10 days @ 248.00 per day:	\$2,480.00
JE Newman 12 days @216.00 per day:	\$2,592.00
GS-05 teamster 12 days @126.00 per day:	\$1,512.00
GS-05 teamster 12 days @126.00 per day:	\$1,512.00
GS-05 trail crew 20 days @ 126.00	\$2,520.00
GS-05 trail crew 20 days @ 126.00	\$2,520.00
PERDIEM: 20 PER DAY@ 86DAYS	\$1,720.00
FLIGHTS: Islander 900.00 per flight x 3:	\$2,700.00
TOTAL :	\$17,556.00

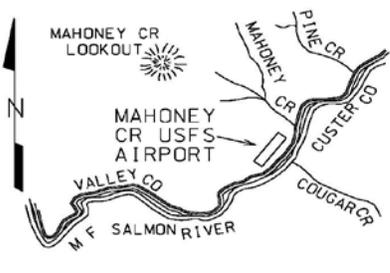
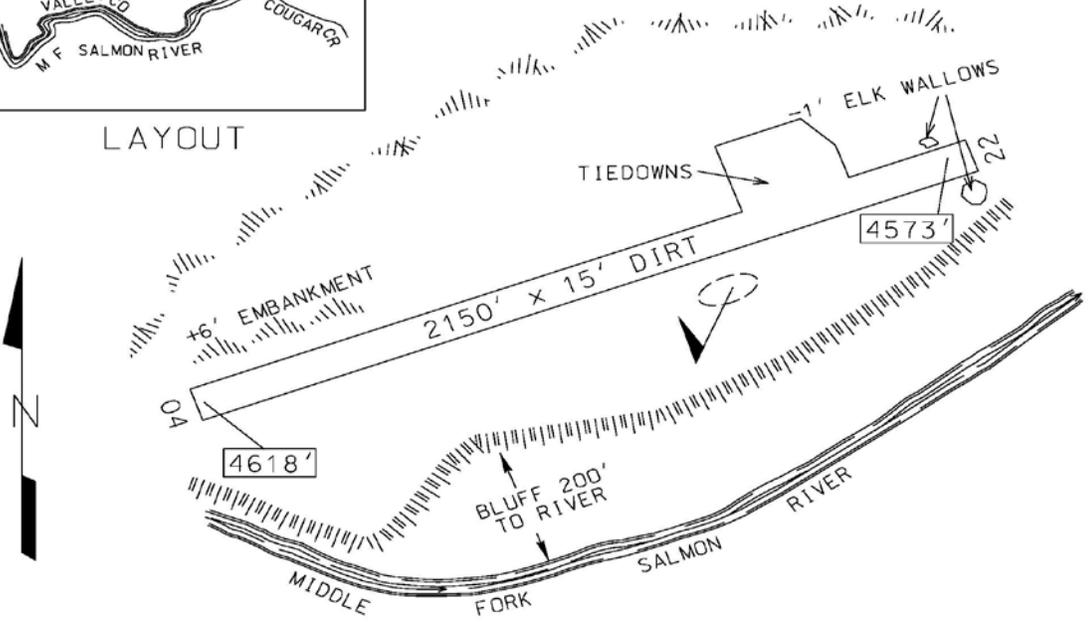
The teamsters are needed to drive the teams, usually two on the grader and two working with the scoop. The 2 GS-05 (20 days) trail crew are needed to open and clear the trail of debris from Camas Creek to the airstrip that is due for maintenance. What is not factored in is the amount of overtime (varies from year to year) and the additional flights for the GS-05 trail crew to open the trail to the airstrips.

Appendices

Appendix A – Mahoney Airstrip Map

Appendix B – Mahoney Airstrip Maintenance Task Matrix

Appendix C - Summary listing of Special Orders

MAHONEY CREEK USFS		0U3								
<p style="text-align: center;">LOCATION</p> 		<p style="text-align: center;">LAT 44° 44.68' LONG 114° 55.28'</p>								
<p style="text-align: center;">LAYOUT</p> 										
ELEVATION 4618		CTAF 122.9								
<p><u>LOCATION</u> 2 MILES SE OF RANGER STA.</p> <table style="width: 100%; border: none;"> <tr> <td style="border: none;"><u>VOR</u></td> <td style="border: none;"><u>FREQ</u></td> <td style="border: none;"><u>RAD</u></td> <td style="border: none;"><u>NM</u></td> </tr> <tr> <td style="border: none;">LKT</td> <td style="border: none;">113.5</td> <td style="border: none;">228°</td> <td style="border: none;">39.0</td> </tr> </table> <p><u>COMMUNICATIONS</u> CTAF 122.9</p> <p><u>NAV AIDS</u> NO</p> <p><u>LIGHTS</u> NO</p> <p><u>ATTENDED</u> NO</p>	<u>VOR</u>	<u>FREQ</u>	<u>RAD</u>	<u>NM</u>	LKT	113.5	228°	39.0	<p><u>FUEL</u> NO</p> <p><u>SERVICES</u></p> <p>TIEDOWNS</p> <p><u>MANAGER</u> 208-879-4101</p> <p><u>FBO(s)</u></p> <p>NO</p>	
<u>VOR</u>	<u>FREQ</u>	<u>RAD</u>	<u>NM</u>							
LKT	113.5	228°	39.0							
<p><u>REMARKS</u> NORMALLY LAND RWY 21, DEPART RWY 03. RUNWAY MARKED WITH WHITE PAINTED BOUNDARY MARKERS SET AT 65' WIDE WITH 15' BARE DIRT CENTERLINE. 1' DEEP DITCH RUNS ALONG BOTH SIDES OF RUNWAY.</p> <p>CAUTION: DEEP ELK WALLOWS LOCATED ADJACENT TO END OF RWY 21.</p>										
11-11										
MAHONEY CREEK USFS		0U3								

Appendix B

Maintenance Task Matrix

Action Area	Specific Need or Location	Type of Action (standard)	Action Frequency, How often completed	Time of Year	Quantity, Amount, or Area Treated	Estimated Cost (for reference only, costs may change)
Leveling	a. Entire airstrip as needed	Maintain a rut free level surface	Every three (3) years	Typically the beginning of the season	Main landing area	
	b. Spot leveling ruts and holes	Fill holes and ruts	Every three (3) years	Typically the beginning of the season	Whole airstrip	
Painting	Runway boundary markers	Keep runway markers visible from the air	Every three (3) years (as needed)	Typically the beginning of the season	4 End markers (60 sq ft each) 4 Side markers (40 sq ft each)	
Vegetation control	a. Clear runway approaches	Remove vegetation that intrudes on approach glide slope	Every three (3) years (as needed)	Typically the beginning of the season	Maintain 5% glide slope for 300' from runway end	
	b. Clear encroaching vegetation on runways	Remove vegetation that encroaches on runway dimensions	Every three (3) years (as needed)	Typically the beginning of the season	Remove any woody vegetation within runway dimensions	

Action Area	Specific Need or Location	Type of Action (standard)	Action Frequency, How often completed	Time of Year	Quantity, Amount, or Area Treated	Estimated Cost (for reference only, costs may change)
Clearing obstructions	Remove obstructions : fallen logs, rolled rocks	Remove obstructions from runway surface	Every three (3) years	Typically the beginning of the season	Entire airstrip	
Rock removal	Remove rocks	Remove rocks of size that pose hazard	Every three (3) years	Typically the beginning of the season	Entire airstrip	
Navigation marker maintenance	Maintain windsock	Ensure windsocks turn freely and are in fair or better condition	Every three (3) years	Typically the beginning of the season	One (1) windsock	
Weed control	Control spread of noxious weeds	Remove noxious weeds through spraying				
Airplane tie-downs	Maintain airplane tie-downs	Repair or replace tie-downs	Every three (3) years	Typically the beginning of the season	Four (4) pairs of tie-downs	
Camp areas	Maintain camp areas	Clean camp areas around airstrip; remove garbage, clean fire rings	This usually gets done once every year	Typically the beginning of the season	Each camping area (2 fire rings presently)	
Inventory and monitoring	Annual inspection of airstrip conditions and linked	Annual inspection of airstrip conditions, facilities	Annually	Typically the beginning of the season	Entire airstrip and linked facilities	

	facilities	and monitoring of plans				
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