

Wilderness Airstrip Operations and Maintenance Plan

Wilson Bar Airstrip

Nez Perce National Forest

Introduction

This operations and maintenance plan covers annual routine operations and maintenance needs for Wilson Bar airstrip. For non-routine activities or emergency actions, reference the Minimum Requirements Decision Guide – Airstrip Maintenance, for the Frank Church-River of No Return Wilderness (FC Plan, Standard E-6, pg 2-12; FEIS, Appendix).

Location

Wilson Bar airstrip is located on the main Salmon River, two miles upstream of Mackay Bar. It is administered by the Salmon River Ranger District, Nez Perce National Forest, Region 1. Wilson Bar airstrip (ID76) is also known as Jackson Bar. The airstrip is located at Township 24N, Range 8E, Section 28, with a Latitude of 45 23 .849 and a Longitude 115 28 .988. It is the only public airstrip on the 120 mile stretch of the main Salmon River.

History of the Airstrip

- The airstrip was constructed in 1957-58, on public ground, by Al Tice, who at the time owned Mackay Bar. It is unknown what equipment was originally used for construction; we assume heavy mechanized equipment was used. The original dimensions were 50' X 1500', and the airstrip experienced intermittent use prior to 1980.
- The Forest Service closed the airstrip in 1980 as a result of the Central Idaho Wilderness Act of 1980. The airstrip is also located within the Wild and Scenic River corridor of the Main Salmon River. The Forest Service initiated a Special Order prohibiting aircraft landing within the Salmon Wild and Scenic River Corridor. The order was signed on May 19, 1992 and applies to National Forest lands only.
- The closure of Wilson Bar created a significant reaction from the general aviation (GA) community, the Idaho State Bureau of Aeronautics, and elected officials. After years of debate, the Assistant Regional Attorney issued a decision on the issue, finding the airstrip may only be closed if it poses an extreme danger to aircraft. The State of Idaho (Department of Aeronautics) expressed written concurrence with the decision. Several options were evaluated, and the decision was made to rescind the Special Order and reopen Wilson Bar Airstrip after some minimal maintenance was accomplished and a maintenance plan was agreed upon in 1995. Minimal maintenance has occurred since that time.

- The dimensions or footprint of the airstrip as inventoried at time of its designation (ie. FC-RONR - 1980 CIWA) were 1490' X 50'
- The characterization of the types of use up to time of designation as wilderness (Frank Church-RONR, ie. 1980) was “intermittent public and commercial use”.
- The average historic use levels are unknown; there is no means in-place for tracking take-offs and landings. Generally, use has been perceived to be light, but site visits to the airstrip show the runway surface is receiving regular use and aircraft have been observed arriving and departing during the site visits.
- The accident history includes four (4) known accidents:
 - (1) 09/2004, A Cessna 180 landed with excessive speed due to down drafts on final and overran the end of the runway. The aircraft “nosed over”, coming to rest up-side down. Aircraft incurred substantial damage and pilot had minor injuries.
 - (2) 05/2008, A Cessna 172M’s right wing collided with vegetation on departure, the pilot flew the aircraft to an airport w/ maintenance personal and structural damage was reported to the right wing.
 - (3) 6/25/2009, A Maul 8 went off the north side of the runway, approx 1/3 of the way down runway 24 during landing. The aircraft incurred significant damage and was removed by trailer. No injuries reported.
 - (4) 7/2009, A Cessna 182 went off the end of the runway upon landing. The aircraft incurred significant damage and was removed by trailer. Report of minor injuries involved with the two occupants.
- The airstrip is generally utilized by experienced pilots in single engine, high performance aircraft for day and over-night visits.
- Characterization of past maintenance or projects
 - Treated for noxious weeds in 2005-06
 - Windsocks replaced when needed, 2008
 - Removal of 8 trees on the right side of runway 24, 2009

Decisions from the 1995 reopening of the airstrip:

- Remove trees at the end of runway 24 necessary to provide for unobstructed approaches and departures.
 - Identify a turn radius clearance dimension on the end of Runway 6 that would require brush/tree removal.
 - Clear trees necessary to obtain a 50 foot width full length of runway.
 - Clear area sufficient for parking of (two) aircraft on the south side of runway.
 - Fill holes and remove rocks, as necessary, along the length of the runway.
 - Use white painted rocks or other on-site materials for runway threshold and side markings.
 - Install a wind sock and standard.
- Wilson Bar’s Proximity to other airstrips: A05- Dixie Airstrip (8 nm N); KMYL-McCall Municipal Airport (40 nm SW); S80- Idaho County Airport (42 nm NW)

- Wilson Bar is the only public airstrip along a 120 mile stretch of the main Salmon River. It provides access to the main Salmon River and the Frank Church River of No Return Wilderness.
- We assume the Wilson Bar airstrip was developed to provide better access to the remote area which included mining and homesteads.

Objectives for Management of the Airstrip

- Maintain the airstrip consistent with the condition it was in at the time of the passage of the Central Idaho Wilderness Act and manage it in conformance with the Salmon River Wild and Scenic designation. Provide a public airstrip with a level of safety commensurate with the intended use by pilots possessing a high degree of mountain flying proficiency.
- Per the Frank Church plan, “The one (1) designated private use airstrip operated and maintained by the Forest Service (Wilson Bar), will be managed for unrestricted public and commercial use until use levels and evaluations dictate a need to establish use limits.” (FC-RONRW Ch. 2-11)
- The IAN current classification is L1-Wild

Physical Description of the Airstrip

- The airstrip is located on a plateau approximately 50’ above the Salmon River. High ridges (1000’ – 2000’) parallel the site to the north and south. The Salmon River curves to the north at the east end of the airstrip. An old homestead site is apparent on the NW end of the airstrip. The airstrip is surrounded by 15’ – 60’ trees. The runway surface is turf, having a well established grass surface.
- Elevation of the airstrip is 2250’
- Dimensions of the runway are 1490’ X 50’ avg. (width varies from 33 to 71 feet)
- Gradient is uphill from east to west; 60’ over 1490’; the majority of the grade (40’) is in the last 250’ (northeast end)
- Approach to runway 06 (west end) is extremely poor; blocked by steep terrain, trees and downhill landing.
- Approach to runway 24 (east end) is fair to good, landing up hill
- There is room to park 2 aircraft on the southwest side of runway, as well as on the east end past the windsock.
- The runway is aligned 06/24 (SW – NE)
- The airstrip is grass turf in generally good condition.
- There is no winter maintenance; the grass surface can be “slick” from dew or rain at times. The airstrip is snow covered in the winter months, and big game are common on and around the airstrip.

Airstrip Surface Improvements

- The end markers to runway 24 need replacing (consumed by fire 2007) and the lateral boundary markers are missing (replace with local rocks and paint).
- The standard and windsock is located on the east end (up river end) of the airstrip, and is 23” in diameter.
- No tie downs are available at the airstrip.
- There is no fencing around the airstrip.
- There are no drainage structures at the airstrip.
- No significant improvements have been made to the airstrips surface.
- The area was treated for noxious weeds in 2005-06; the grass on the airstrip is much healthier since the treatment.

Airstrip Facilities

- Currently there is no bulletin board, signs or other information improvement.
- There are no buildings or facilities associated with the airstrip.
- There are several dispersed camping sites with fire rings adjacent to the airstrip.
- The Mackay Bar Campground is a half mile downstream of Wilson Bar Airstrip and is accessible by road.
- The main Salmon River Trail runs east to Rattlesnake Creek.
- Use of motorized vehicles on the road between Mackay Bar Campground and the airstrip is not allowed from June 15 to Sept. 15, annually.

Use of the Airstrip

- The FAA designation is public ownership, private use.
- The Forest Service listing per FC-RONRW direction is: “The one (1) designated private use airstrip operated and maintained by the Forest Service (Wilson Bar), will be managed for unrestricted public and commercial use until use levels and evaluations dictate a need to establish use limits.” (FC-RONRW Ch. 2-11)
- The IAN current classification is L1-Wild
- General season of use is May through October
- Wilson Bar Airstrip is generally visited by experienced public pilots in high performance single engine aircraft.
- Wilson Bar Airstrip fulfills no agency administrative aviation use.
- Historic take offs and landings have not been documented.
- Commercial use of the airstrip is unknown.
- Wilson Bar airstrip lies within the Frank Church River of No Return Wilderness and the Salmon River Wild and Scenic River Corridor.
- Big game can be found on or around the airstrip at any time.
- The main Salmon River Trail runs east (up river) from Wilson Bar Airstrip.

Restrictions and Requirements for Use of the Airstrip

- Generally open from May – October, depending on snow.
 - Use at own risk
 - Recommended for use by mountain proficient pilots using high-performance aircraft.
 - Land Rwy 24, depart Rwy 06
 - No go around possible
 - Strong downdrafts prevalent on approach to Rwy 24
 - Mackay Bar airstrip two miles downstream, announce intentions on 122.9 mhz.
 - Big game animals on and in vicinity of airstrip.
 - No winter maintenance.
- Wilson Bar Airstrip lies within the Frank Church River of No Return Wilderness and the Wild and Scenic River corridor of the Main Salmon River. Pilots practice appropriate Leave No Trace ethics at the airstrips

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

- Announce intentions on 122.900
- Watch for other traffic; Mackay Bar airstrip is 2 miles downstream.
- Recommend landing Rwy 24, Take-off Rwy 6 (land downstream, take-off upstream)
- Account for no go around, strong down drafts on approach to runway 24, and big game on or around airstrip.
- Remember, airstrip's grass surface can be slick from dew, frost or rain.
- Park aircraft on southwest side of the airstrip or on the east end past the windsock.
- Be aware of closures communicated through NOTAM's and/or by use of yellow X's placed on both ends of the runway.

Wilderness Education/Visitor Contact

- No formal visitor contact or wilderness education occurs at Wilson Bar airstrip at this time. There are plans for placement of an educational bulletin board and pilot sign in book.
- River patrol personnel conduct intermittent site visits when they are in the area.

Law Enforcement/Search Rescue/LifeFlight

- There are no routine or scheduled federal Law Enforcement activities planned for Wilson Bar Airstrip.
- Search and rescue (SAR) or life-flight activities would follow standard communication protocols on 122.9 during airstrip use.

- We have a defined action plan for agency aircraft that are missing or known to have had an accident. It is recommended that the IAN parties discuss a common checklist for all incidents, e.g. Forest/Area Dispatch Center initiates the following contacts: appropriate county Sheriff, forest/unit Aviation Officer, District Ranger or staff, and Division of Aeronautics.

Support to Other Forest Service Programs

- No other Forest Service programs operate out of or use Wilson Bar Airstrip on a recurring basis

Maintenance Needs for the Airstrip

Maintenance will be dependent on the availability of funding. The matrix below defines what items will be addressed at Wilson Bar (highlighted in blue). The Maintenance Plan will be updated as needed to provide the level of maintenance required to meet the need.

- End Markers and side markers need to be constructed. (End markers (log) burned in 2007 wildfire)
- Limbing and some tree removal needs to take place across from the windsock due to encroachment on the runway.
- An information/wilderness education board with a pilot log book should be constructed.

Due to the remote location an overnight stay is needed to facilitate accomplishment of most maintenance work. Plan on two people for two days each spring to address general early season maintenance needs.

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)
Mowing	Entire airstrip	Mow to 6” height	Evaluate need on intermittent basis.	July, and as needed	Airstrip surface, typically 6-8 acres	
Leveling	a. Entire airstrip as needed N/A	Maintain a rut free level surface (+/- 2%?)	As needed during the season	Begin-ning of season	Airstrip surface, approximately 6-8 acres	Wilderness: \$1,500 per event (2 person team, 2-3 days; stock drawn equipment) Non-wilderness: \$500 per event (1 person with tractor)

	b. Spot leveling ruts and holes	Fill holes and level ruts when aircraft safety is compromised	As needed	As needed	As needed, typically 200-300 sq ft per year;	\$50 per event
	c. Rolling N/A	Roll airstrip to compact areas as needed	As needed	As needed	As needed	100 per event
Seeding TBD	Bare areas	Seed bare areas with native seed when greater than 10 sq ft	As needed	As needed	As needed. Use 2 lbs seed per 100 sq ft:	\$100 per year
Fertilizing N/A	Apply fertilizer	Encourage growth of grass in high traffic areas	Non-Wilderness: Annually, 1-2 time per year Wilderness: as needed	Pre-season, and as needed	Non-wilderness: entire airstrip 6-8 acres; Wilderness: areas as needed	Non-wilderness: \$500 per strip Wilderness: \$50 per event

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)
Drainage N/A	a. Clear culverts	Keep culverts clear for free flow of water	Clear as needed	Pre-season	As needed, typically annually and after storm events	\$50 per year
	b. Clear ditches	Keep ditches clear for free flow of water	Clear as needed	Pre-season	Maintain to 1ft depth	\$50 per year
Painting	a. Windsock pole	Keep windsock pole paint in good condition	Every 3 years as needed	As needed	One pole – 10ft;	\$25 each event
	b. Runway markers	Keep runway markers visible from the air	Every 5 years as needed	Pre-season	4 End markers 4 Side Markers 20 sq ft each;	\$50 each event
Vegetation Control	a. Clear vertical approaches	Remove vegetation that intrudes on approach glide slope	Annually as needed, typically once ever 5 years	Pre-season	Maintain 5% glide slope for 300' from runway end	\$100 per event
	b. Clear side approaches N/A	Remove vegetation that intrudes on approach glide slope	Annually as needed, typically once ever 5 years	Pre-season	12% approach clearance for 300' terrain permitting	\$100 per event
	c. Clear sides of runways	Remove vegetation that intrudes on side clearing	Annually as needed, typically once ever 5 years	Pre-season	14% side clearance out 125 from centerline up to 150' elevation	\$100 per event
	d. Clear encroaching vegetation on runways	Remove vegetation that encroaches on runway dimensions	Annually as needed	Pre-season	Remove any woody vegetation within runway dimensions;	\$100 per event

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	Annually, as needed	Pre-season	Entire airstrip	\$50 per event
Rock removal	Remove rocks	Remove rocks of size that pose hazard	Annually, as needed	Pre-season and as needed	Entire airstrip	\$50 per event
Navigation Marker Maintenance	Maintain windsocks	Ensure windsocks turn freely and are in fair or better condition	Annually, as needed; typically replace every 5 years	Pre-season	Typically, 1 windsock per airstrip	\$50 annually, \$250 per replacement windsock
Landing Area Rotation N/A	Rotate landing strip configuration to reduce impact on airstrip	Place cones or other signal devices to rotate landing surface	Periodically during season of use. Typically 1-2 times per year	As needed to rotate impacts on runways	Entire airstrip, move markers 1-2 time per season	\$50 cost for markers, replace every 5 years; \$30 per signal change
Weed Control Continue treatment cycle, as needed	Control invasion and spread of noxious weeds	Remove noxious weeds, thru handpulling or spraying	Annually, as needed	Spring, prior to seed set.	Entire airstrip	\$300 per event
Rodent Control N/A	Control rodents (gophers, badgers, etc.) threatening runways	Eliminate rodent dens (holes and castings) within the runway surface	Annually, as needed	As needed to reduce impacts to runways	Entire Airstrip	\$100 per event
Wildlife Control / Conflicts N/A	Reduce wildlife impacts on runway surfaces	a. Eliminate ungulate salt licks	Annually, as needed	As needed	Portion of airstrip with impacts	\$200 per event
		b. Minimize ungulate grazing	As needed	As needed	Portion of airstrip with impacts	\$500 per event

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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)
Airplane Tie-downs N/A	Maintain airplane tie-downs	Repair or replace airplane tie-downs	Annually inspect, Repair or replace as needed	Pre-season	Tie-down areas; typically 1-2 areas per airstrip, 3-5 tie-downs ea	Replacement = \$50 each per tie-down; \$10 per tie-down maintenance
Camp Areas River patrols site visits and necessary clean-up	Maintain camp areas	Clean camp areas around airstrip; remove garbage, clean toilets, clean fire-rings	Periodically through-out season of use; typically weekly as needed	During season of use	Each campsite	\$50 X 5 = \$250.00
Inventory and Monitoring	Annual inspection of airstrip conditions and facilities	Annual inspection of facilities, airstrip conditions and monitoring of plans	Annually	Pre-season	Each airstrip	\$100 per airstrip per year
Soil Testing N/A	Determine soil conditions to improve fertilization regime	Perform soil test to determine fertilization needs	As needed; typically once every 10 years	During season of use	Soil samples from parts of the airstrip	\$500 per test
Soil Preparation N/A	Adding lime or other soil amendments (manure) to improve runway conditions	Add soil amendments to runway surface	As needed; typically once every 10 years	Pre-season or during season of use	For portions of airstrip indicating need for treatment	Variable; typically \$100-300 per acre depending on material.
Others...						

Annual Budget

For routine seasonal maintenance including equipment, supplies, and vehicle mileage with salaries covered by other resources:

Two visits of two days each with two people

From Salmon River R.D.	280 miles/ r.t. x 2 = 560 miles @ .50 pr/mi =	\$280
Field per diem, \$23 per night	23 x 4 =	\$92
Misc. supplies		\$50
Site visit by River patrol	\$50 x 5 =	<u>\$250</u>
	Estimated total	\$672.00

Inspections and Monitoring

- Forest Service R-1 Pilots will do a seasonal inspection of the airstrip. Additional inspections will take place as needed and can be coordinated between the Dept. of Aeronautics and the USFS.

Contacts

- Supervisory Natural Resources Specialist (Recreation), Salmon River Ranger District – **currently vacant**, (208)839-2109
- Zone Fixed-wing Coordinator, Nez Perce/Clearwater NF – **Tom Bates**; (208) 983-5666 tbates@fs.fed.us

Prepared by: Tom Bates Date: 1/26/2010

Approved by: /s/ Darcy Pederson Date: 5/19/10
Acting Salmon River District Ranger