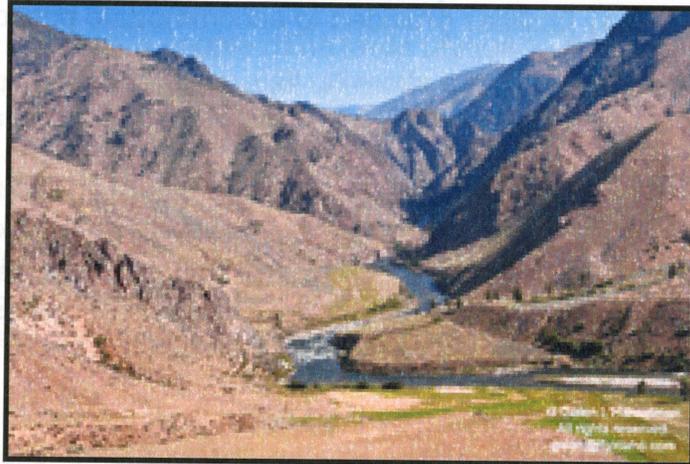


Wilderness Airstrip Operations and Maintenance Plan
Bernard Airstrip
Salmon-Challis National Forest

February, 2012



Prepared by: Laurie L. Matthews Date: _____
Middle Fork Wilderness Manager

Reviewed by: [Signature] Date: 3/5/2012
Forest Archaeologist

Reviewed by: Randy Ambleth Date: 3/12/12
Forest Aviation Officer

Approved by: [Signature] Date: 03/06/12
Salmon-Challis Forest Supervisor

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 Bernard 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 nine (9) miles south (upstream) from the mouth of Big Creek. It is about 68 miles east of McCall, ID and 42 miles west-south-west from Salmon, ID.

The Bernard airstrip is administered by the Middle Fork Ranger District, Salmon-Challis National Forest, Inter-mountain Region 4. The airstrip is located in T 19 N, R 13 E, Section 34 with a Latitude of 44-58-46.6920N and a Longitude of 114-44-05.3290W. Its FAA Identifier is U54.

History of the Airstrip

According to Elizabeth Smith’s “History of the Salmon National Forest,” the Bernard airstrip was built by Wayne O’Conner and Dutch Morrison in 1932 with plow, scraper and fresno.

The Flying B Resort (private inholding) with its own airstrip exists just one mile south (upriver) of the Bernard airstrip. The Flying B hosts visitors/members throughout the spring, summer and fall and also provides guides as an outfitting business throughout the various hunting seasons.

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 Bernard airstrip is 3,626 feet (1105.2 meters). The runway has a length of 1,900 feet and a width of 150 feet. The runway is generally flat, though it does deviate slightly throughout its length. The airstrip is a total of 14 acres, with ample space to turn around and/or tie-down at either end out of the way of the runway. The runway itself is aligned at a north-south direction alongside the river. The surface of the airstrip is turf, dirt, grass, and small rocks. Though not badly rutted or eroded, the surface is rough with dips and bumps. A diagram of the airstrip is contained in Appendix A.

The Bernard airstrip has a couple of hazards unique to this airstrip. First, Bernard is a one-directional airstrip, where all take-offs are to be toward the south. To the north of the airstrip, the Middle Fork River Canyon closes in quickly and provides an unsafe take-off. Thus, all take-offs are toward the south. Go-arounds are also not recommended due to steep rising terrain to the north. Secondly, a hazard exists in the proximity of the privately owned airstrip at Flying B Ranch, just ½ mile upriver to the south. It is recommended that pilots make contact with the Flying B to ensure that no aircraft are departing their airstrip heading north while one is simultaneously departing Bernard heading south.

Airstrip Surface Improvements

At the Bernard 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. There are also other unpainted piles of rocks that define the loading areas and camp spots.

There is a typical fluorescent orange windsock present 60 feet off of the east side of the airstrip and about half of the way down the airstrips’ length. There is no segmented circle on the ground below the windsock. Segmented circles are recommended but not required.

Also present on the airstrip are four (4) pairs of airplane tie-downs. Two pairs of tie-downs are located near either end of the airstrip, as shown on the drawing of the airstrip. The tie-downs are chains up to 12 feet long. Some of the tie-downs have clips on the ends, but some of them do not.

There is barbed wire fencing present around some of the airstrip, with the intention being to keep stock from grazing and being on the airstrip. The fencing is in generally good shape, though there are a few sections that have recently failed, with the top level of barbed wire now hanging loose. There is more fencing containing a smaller pasture around the barn and guard station. This barbed wire fencing is maintained when personnel bring stock to the station, usually in the spring. It is recommended that the barbed wire be replaced with a round wire drop electric fence. There are no noticeable improvements such as culverts or ditches to the airstrip made for water runoff.

Ancillary Facilities

On a bench a couple hundred yards southwest of the airstrip is the Bernard Guard Station. Along with the main house, there is a tack shed, an outhouse, some hitch rails and an irrigation sprinkler system. On the short trail leading from the airstrip to the guard station there is an information bulletin board and a registration box, as well as two gates. Near the first gate that leads out of the fenced airstrip, there are two hitch rails. Near this there is a sign that alerts pilots that "All take-offs should be upriver." Further north along the west side of the airstrip (1/4 of the way down) there is a second outhouse.

Use of the Airstrip & Support to Other Forest Service Programs

The Bernard airstrip is available for public use throughout the year, though it is not plowed of snow. The Bernard 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 is also used by commercial river outfitters and aviation services to drop off and pick up gear, supplies and clients.

The airstrip is also used for administrative purposes and to conduct wilderness management activities. Examples include an occasional wilderness ranger moving through the area; boat patrol crews that begin or end a boat patrol from the airstrip, or stop on the way through; trail crews that arrive and leave from the Bernard airstrip to complete one or more trail maintenance hitches while based at the Bernard Guard Station house; fire crews who also utilize the airstrip to conduct fire management activities; as well as archaeologists, researchers and District Rangers.

Other reoccurring Forest Service use comes from the 'noxious weeds crew' who access the river corridor to control noxious weeds. This crew flies in chemical treatments and equipment needed for control work and to stay in the field for their 8-day hitch. The crew will sometimes fly full raft gear into Bernard, as it is a good put-in spot for noxious weed control on the North Fork District, and having the raft allows them to easily access both sides of the river on the way down.

While Forest Service employees use the Bernard airstrip, the Idaho State Department Fish and Game employees typically uses the private Flying B airstrip since it is closer to the Fish and Game inholding at Mormon Ranch.

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

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 B 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).

The parking areas and tie-downs exist near either end of the airstrip. Some are on the south end just below the Bernard Guard Station on the west side of runway and some are at the north, end on the east side of the runway. Planes typically taxi back up the main part of the runway through the dirt and rocks, however there is room on either side, through the grass, for taxiing if needed. If the runway needs to be closed for maintenance or other reasons operating procedure requires that it be marked with a white X on the airstrip ends.

Wilderness Education / Visitor Contacts

Due to continued reductions in annual Wilderness management fund allocations the Bernard Guard Station is not staffed, thus reducing opportunities for face to face wilderness education and visitor contacts. Historically, a Forest Service station guard was based at the Bernard station during the spring, summer and fall. The Middle Fork River Patrol is able to make contacts with visitors during the season that they float by the station. Some of the best opportunity for face to face communication and education in the area is done by Idaho State Fish and Game conservation officers during hunting seasons while they are staying at the state owned Mormon Ranch, just 2 miles south of Bernard airstrip.

A trailhead registration box and kiosk board exist just off of the airstrip along the short trail to the guard station. The board and box are maintained annually 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 Bernard 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)

The Bernard 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.

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

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.

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. Additionally, they have overall management responsibility for the Bernard Guard Station and it's various structures.

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. The River Program Manager will be responsible for the design, implementation, analysis and summary of airstrip sampling.

Annual O&M costs by BLI

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.

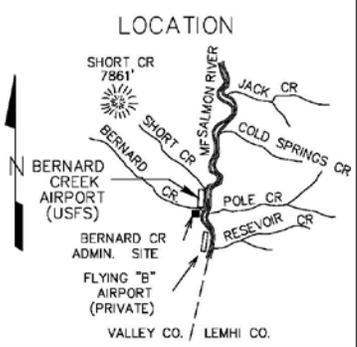
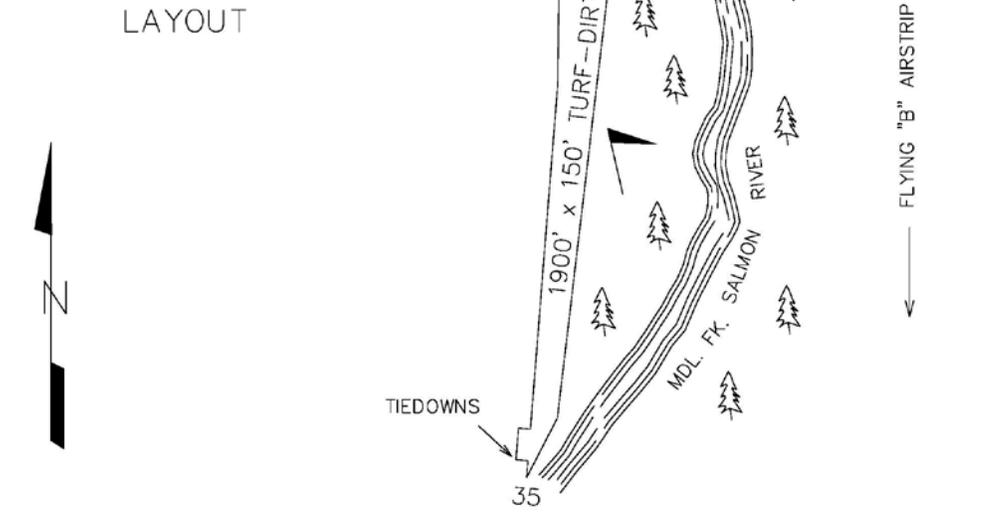
Appendices

Appendix A – Map of Airstrip

Appendix B – Maintenance Task Matrix

Appendix C – Special Orders related to air strips

Appendix A

BERNARD USFS		U54							
<p style="text-align: center;">LOCATION</p> 	<p>LAT 44° 58.78' LONG 114° 44.09'</p>								
<p style="text-align: center;">LAYOUT</p> 	<p>ELEVATION 3626</p> <div style="border: 1px solid black; display: inline-block; padding: 2px 10px;">CTAF 122.9</div>								
<p><u>LOCATION</u> 1 MILE NW OF RANGER STATION</p> <table border="0" style="width: 100%; border-collapse: collapse;"> <tr> <td style="padding: 2px;"><u>VOR</u></td> <td style="padding: 2px;"><u>FREQ</u></td> <td style="padding: 2px;"><u>RAD</u></td> <td style="padding: 2px;"><u>NM</u></td> </tr> <tr> <td style="padding: 2px;">LKT</td> <td style="padding: 2px;">113.5</td> <td style="padding: 2px;">249°</td> <td style="padding: 2px;">28.0</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	249°	28.0	<p><u>FUEL</u> NO</p> <p><u>SERVICES</u> TIEDOWNS</p> <p><u>MANAGER</u> 208-879-4106</p> <p><u>FBO(s)</u> NO</p>
<u>VOR</u>	<u>FREQ</u>	<u>RAD</u>	<u>NM</u>						
LKT	113.5	249°	28.0						
<p><u>REMARKS</u> LAND RWY 35, DEPART RWY 17. GO AROUNDS NOT RECOMMENDED DUE TO STEEP RISING TERRAIN NORTH OF RWY. NO WINTER MAINTENANCE. NOTE: RUNWAY SURFACE VERY ROUGH. PAINTED PILED ROCK BOUNDARY MARKERS. PRIVATE FLYING B AIRPORT 1/2 MILE UPSTREAM.</p>									
5/10									
BERNARD USFS		U54							

**Appendix B
Maintenance 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	
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	

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)
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 facilities	Annual inspection of airstrip conditions, facilities and monitoring of plans	Annually	Typically the beginning of the season	Entire airstrip and linked facilities	

Appendix C
Special orders