

2012 Fossil Creek Piscicide Treatment Supply Transport Aviation and Evacuation Procedure Safety Plan



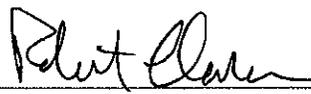
Helicopter used for Gila River Basin Native Fishes Conservation Program.

**2012 Fossil Creek Piscicide Treatment Supply Transport
Aviation and Evacuation
Procedure Safety Plan**

Project Plan Prepared by:  Date: 8/31/12
Clayton Crowder, AGFD

Project Plan Reviewed by: _____ Date: _____
Geoff Shanen, USBR pilot

Project Plan Reviewed by:  Date: 8/29/12
Tony Robinson, AGFD

Project Plan Reviewed by:  Date: 8/29/12
Rob Clarkson, USBR

Project Plan Approved by: _____ Date: _____

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2012 Fossil Creek Piscicide Treatment Supply Transport Aviation and Evacuation Procedure Safety Plan

Mission: Transport equipment and supplies for piscicide treatment and chemical deactivation at lower Fossil Creek.

Project Name: Fossil Creek Piscicide Treatment Supply Transport. Under the cooperative agreement between US Fish and Wildlife Services (USFWS) and Arizona Game and Fish Department (AGFD); AGFD personnel participate on U.S. Bureau of Reclamation (USBR) helicopter flights into the Fossil Creek drainage to transport piscicide and chemical deactivation supplies and equipment to the permanent barrier.

Justification: These work activities are necessary under the requirements of a 2008 biological opinion that directs Reclamation to fund tasks to recover native fishes and control nonnative fishes in the Gila River basin. AGFD implements many of these activities via cooperative agreement with USFWS. The work activities require Special Use Low Level Flight Operations because the work areas are remote and frequently within the confines of canyon bound stream systems in the Gila River Basin.

Project Location: Flight activities occur within the Fossil Creek drainage (see Figures. 1 and 2). The supply drop site is in the Mazatzal Wilderness, and the U.S. Forest Service approved the flights in a post-decisional Section 18 review.

Aircraft: Bell 206 L1/C30P or Bell 206 L3

Pilots: Geoff Shanen (U.S. Bureau of Reclamation). 702-533-7640 (cell)

Mike Norton (standby U.S. Bureau of Reclamation pilot) 702-526-5544

Participants: Geoff Shanen or Mike Norton (pilots) – Pilots and aircraft craft are carded for low level flight and for short and long line sling load operations.

Interagency personnel – AGFD personnel will participate on these flights. Separate addendums to this Project Aviation Plan are prepared during the year to provide details on participating interagency personnel and volunteers.

Scott Rogers	Fossil Creek Project Manager	B-3 training has lapsed
Allen Zufelt	(staging area primary)	B-3 training is current
Clayton Crowder	(supplies drop primary)	B-3 training is current
Drewyer Pearson	(alternate)	B-3 training is current
Tony Robinson	(alternate)	B-3 training has lapsed
Brian Clark	(alternate)	B-3 training is current
Rob Clarkson	(alternate)	B-3 training is current

Project (Flight) Dates:

Project flight dates are:

- September 10, 2012 (alternative dates are September 6 and 7): to deliver equipment and supplies to base camps for piscicide treatment and application.
- September 28, 2012 (**OR OTHER DATE TO BE DETERMINED**): to retrieve equipment and supplies after the completion of the piscicide treatment.

Timing of Operations: We would like to have the helicopter arrive at the staging area at 7:00 am, and begin operations thereafter. See proposed flight schedule in Tables 1 and 2.

Payload: We have about 12,500 lbs of supplies and equipment that need to be transported from the staging area to the drop site. Supplies include numerous 5-gal containers of rotenone and potassium permanganate. If each sling load takes 500 lbs of supplies, we estimate it will take 25 flights.

Table 1. September 10, 2012 flight schedule for Fossil Creek chemical deactivation and staging at permanent barrier, including locations, agency personnel participation, and brief work description. All flights subject to change contingent upon safe flying conditions.

Flight No.	Starting Location	Passengers	To	Depart Time	Distance (miles)	Comments
1	Glendale		Staging Area - Stehr Lake 34°22.086' N 111°40.045' W	0630	65	Crew safety briefing, long line preparation and initial pickup of sling load of equipment and supplies
2	Stehr Lake staging area		Fossil Creek supplies drop 34°21.126' N 111°39.921' W	0700	1.10	Drop off sling load of equipment and supplies.
3	Fossil Creek supplies drop		Stehr Lake, Yavapai County 34°22.086' N 111°40.045' W	0705	1.10	Pickup sling load of equipment and supplies
4	Stehr Lake, staging area		Fossil Creek supplies drop 34°21.126' N 111°39.921' W	0710	1.10	Drop off slingload of equipment and supplies.
5	Fossil Creek supplies drop		Staging Area - Stehr Lake 34°22.086' N 111°40.045' W	0740	1.10	Refuel. Pickup sling load of equipment and supplies.
6	Stehr Lake, staging area		Fossil Creek supplies drop 34°21.126' N 111°39.921' W	0740	1.10	Drop off slingload of equipment and supplies.
7	Fossil Creek supplies drop		Staging Area - Stehr Lake 34°22.086' N 111°40.045' W	0745	1.10	Pickup sling load of equipment and supplies
8	Stehr Lake, staging area		Fossil Creek supplies drop 34°21.126' N 111°39.921' W	0750	1.10	Drop off slingload of equipment and supplies.
9	Fossil Creek supplies drop		Staging Area - Stehr Lake 34°22.086' N 111°40.045' W	0820	1.10	Refuel. Pickup sling load of equipment and supplies
10	Stehr Lake, staging area		Fossil Creek supplies drop 34°21.126' N 111°39.921' W	0820	1.10	Drop off slingload of equipment and supplies.
11	Fossil Creek supplies drop		Staging Area - Stehr Lake 34°22.086' N 111°40.045' W	0825	1.10	Pickup sling load of equipment and supplies
12	Stehr Lake, staging area		Fossil Creek supplies drop 34°21.126' N 111°39.921' W	0830	1.10	Drop off slingload of equipment and supplies.
13	Fossil Creek supplies drop		Staging Area - Stehr Lake 34°22.086' N	0835	1.10	Pickup sling load of equipment and

			111°40.045' W			supplies
14	Stehr Lake, staging area		Fossil Creek supplies drop 34°21.126' N 111°39.921' W	0840	1.10	Drop off slingload of equipment and supplies.
15	Fossil Creek supplies drop		Staging Area - Stehr Lake 34°22.086' N 111°40.045' W	0920	1.10	Refuel. Pickup sling load of equipment and supplies
16	Stehr Lake, staging area		Fossil Creek supplies drop 34°21.126' N 111°39.921' W	0920	1.10	Drop off slingload of equipment and supplies.
17	Fossil Creek supplies drop		Staging Area - Stehr Lake 34°22.086' N 111°40.045' W	0925	1.10	Pickup sling load of equipment and supplies
18	Stehr Lake, staging area		Fossil Creek supplies drop 34°21.126' N 111°39.921' W	0930	1.10	Drop off slingload of equipment and supplies.
19	Fossil Creek supplies drop		Staging Area - Stehr Lake 34°22.086' N 111°40.045' W	0935	1.10	Pickup sling load of equipment and supplies
20	Stehr Lake, staging area		Fossil Creek supplies drop 34°21.126' N 111°39.921' W	0940	1.10	Drop off slingload of equipment and supplies.
21	Fossil Creek supplies drop		Staging Area - Stehr Lake 34°22.086' N 111°40.045' W	0945	1.10	Refuel. Pickup sling load of equipment and supplies
22	Stehr Lake, staging area		Fossil Creek supplies drop 34°21.126' N 111°39.921' W	1025	1.10	Drop off slingload of equipment and supplies.
23	Fossil Creek supplies drop		Staging Area - Stehr Lake 34°22.086' N 111°40.045' W	1030	1.10	Pickup sling load of equipment and supplies
24	Stehr Lake, staging area		Fossil Creek supplies drop 34°21.126' N 111°39.921' W	1035	1.10	Drop off slingload of equipment and supplies.
25	Fossil Creek supplies drop		Staging Area - Stehr Lake 34°22.086' N 111°40.045' W	1040	1.10	Pickup sling load of equipment and supplies
26	Stehr Lake, staging area		Fossil Creek supplies drop 34°21.126' N 111°39.921' W	1045	1.10	Drop off slingload of equipment and supplies.
27	Fossil Creek supplies drop		Staging Area - Stehr Lake 34°22.086' N 111°40.045' W	1050	1.10	De-long line and refuel.
28	Stehr Lake staging area		Boulder City	1145	65	Return to Glendale

Table 2. September 28, 2012 (**OR OTHER DATE TO BE DETERMINED**) flight schedule for the Fossil Creek piscicide treatment and chemical deactivation equipment and supplies removal, including locations, agency personnel participation on flight, and brief work description. All flights subject to change contingent upon safe flying conditions.

Flight No.	Starting Location	Passengers	To	Depart Time	Distance (miles)	Comments
1	Boulder City		Staging Area - Stehr Lake 34°22.086' N 111°40.045' W	0600	210	Stage long line, and pick up sling load
2	Stehr Lake staging area		Fossil Creek supplies drop 34°21.126' N 111°39.921'W	0700	1.10	Pick up sling load
3	Fossil Creek supplies drop		Staging Area - Stehr Lake 34°22.086' N 111°40.045' W	0705	1.10	Drop off sling load
3	Stehr Lake staging area		Fossil Creek supplies drop 34°21.126' N 111°39.921'W	0710	1.10	Pick up sling load
4	Fossil Creek supplies drop		Staging Area - Stehr Lake 34°22.086' N 111°40.045' W	0715	1.10	Drop off sling load
5	Stehr Lake staging area		Fossil Creek supplies drop 34°21.126' N 111°39.921'W	0720	1.10	Pick up sling load
6	Fossil Creek supplies drop		Staging Area - Stehr Lake 34°22.086' N 111°40.045' W	0725	1.10	Drop off sling load, refuel and de-rig long line.
7	Stehr Lake staging area		Boulder City	0800	1.10	Return to Boulder City

Staging Locations at Fossil Creek (see figures 1 and 2)

- Stehr Lake staging area (34°22.086' N; 111°40.045' W). Within the general vicinity of the Stehr Lake bed..
- Fossil Creek supplies drop (34°21.126' N; 111°39.921' W). 100 yards southwest of permanent barrier and Fossil Creek.
- Homestead Base Camp (34°23.599'N; 111°38.723'W). About 2.25 miles north northeast of Stehr Lake staging area.

Flight Following: FAA Flight Service Station 1-800-992-7433. USBR submits an FAA flight plan for each flight. Automated Flight Following marks the latitude and longitude of flight activities online every three minutes.

Aerial Hazards and Risk Mitigation:

- 1.) Flying less than 500' above ground level once arriving at Fossil Creek. All flying activities adhere to AMD Special Use Regulations. There are two 500kV transmission lines approximately 0.25 mile west of Stehr Lake (34° 22.086' N; 111° 40.045' W) and 1

mile west of the Fossil Creek supplies drop location (34° 21.126' N; 111° 39.921' W) respectively. The transmission lines and towers are at a height of approximately 165 feet above ground and should be avoided.

- 2.) Use of sling loads. Sling load operators will be trained in sling load operations and wear appropriate PPE during all operations.
- 3.) The only landing site is the staging area. No landing will occur at the supply drop site. The landing site area may be hazardous due to wind, canyon walls, vegetation, slopes near the landing pads, etc. Although the landing site is “unimproved”, it is specified, and is clear of obstacles that could encroach upon safe landing and take-off procedures. The sling load drop site is in a narrow canyon, but the drop site is clear of obstacles that could encroach upon a safe drop.

Radio Frequencies:

We will have 4 VHF ground to air handheld radios programmed for U.S. Forest Service frequency. Alternatively, we can use USBR handheld radios programmed at 163.7125 MHz (Geoff Shanen in USBR helicopter).

Special Considerations:

- 1.) During sling load operations, NO passengers are ever transported. All sling load gear is weighed beforehand to comply with load calculation requirements. Ground crews are trained in sling load operations and wear appropriate PPE during operations.
- 2.) Volunteer personnel or untrained agency personnel participate on these trips. During flight activities, the actions of volunteers are limited to being led to and from the helicopter by experienced personnel. Volunteers are NOT to load or unload any gear from the rear hatch of the helicopter, and will be physically attended during approaching and departure from the helicopter by personnel experienced with our flight operations and with pilot approval.
- 3.) All experienced personnel are trained in Helicopter/Airplane Safety and will all attend the pilot’s pre-flight briefing.
- 4.) All people involved are responsible for following safe procedures. However, the pilot has full discretion in determining whether or not a flight will occur or be cancelled because of inclement weather, visibility, wind, turbulence, temperature, or any other factor he deems to be of importance.
- 5.) There are two 500kV transmission lines about 0.25 to 1 mile west of the flight path; 0.25 west of Stehr Lake and 1 miles west of the barrier. The transmission lines run in a southwest to northeast direction.

Personal Protective Equipment (PPE): Not applicable as there will be no flights with passengers. Personnel involved with sling load operations will wear hard hats, goggles or safety glasses, pants, long sleeve shirts, and boots.

Fuel Operations: A fuel truck will be necessary. The fuel truck can also park in the vicinity of the staging area (34°22.092' N and 111° 40.041' W). Directions to the staging area from Phoenix are as follows:

- Take I17 north to Camp Verde.
- At Camp Verde take exit 285 or 286. Take Highway 260 east towards Payson
- About 1 mile or so after going across West Clear Creek, turn right on Fossil Creek Road (Forest Road708)
- Drive 14 miles down FR 708, then turn right on FR502.

- Go about 3 miles down FR502
- Turn left on to a small spur road that goes to the old Stehr Lake. You are there.

Funding: Flight procurement is funded by USBOR Cost Authority # D10-0344-1998-004-92-7-6.

CRASH, SEARCH AND RESCUE PLAN (Aviation Mishap Response):

You need to consider first whether this is an overdue aircraft or a crash situation.

Overdue aircraft:

An overdue aircraft can occur from shutting the aircraft down at a refueling location or an emergency landing zone (i.e., because of high winds suddenly arising, bad visibility developing from rain or low clouds, etc.). However, if the personnel involved in the flight operations of the aircraft have not been sighted or contacted by radio or phone for **more than an hour and a half** you need to take action.

FOR OVERDUE AIRCRAFT CALL:

Tonto National Forest Dispatch

(480) 457-1551

State that it is an emergency or you may be put on hold. Give them brief, but pertinent details. Your distress call should be similar to the following:

“We are requesting search assistance from Tonto National Forest for an overdue aircraft. The helicopter’s starting location was Stehr Lake, near Fossil Creek. The overdue aircraft is missing in Fossil Creek, south of FR708. The overdue aircraft is a Bell helicopter, and has not been sighted for more than an hour and a half.”

Aircraft Accident:

If you have an aircraft accident situation, you need to act immediately. Your first priority is to activate search and rescue assistance.

Plan 1: Use cell phone or AGFD radio to contact:

FOR AIRCRAFT ACCIDENT

Tonto National Forest Dispatch (480) 457-1551

AGFD Dispatch: (623) 236 7201

State that an aircraft accident that has occurred. State the following in this order:

- 1) State the location of the accident (e.g., Stehr Lake, about 10 miles south southwest of Strawberry).
- 2) State whether the patient(s) is in “CRITICAL or STABLE” condition (e.g., life threatening or not)
- 3) State whether it is a “TRAUMA or a MEDICAL” situation (e.g., severe bleeding or broken femurs vs. diabetic coma).

In addition to contacting Tonto National Forest Dispatch and AGFD Dispatch for immediate search and rescue operations, notify:

FAA Flight Service Station 1-800-992-7433.

Additional people you need to contact if search and rescue is initiated:

- 1) Leonard Ordway (AGFD Field Operations Division – Chief): (623) 236-7293.
- 2) If Leonard Ordway is not available call: Sharon Adams (AGFD Field Operations Division – Coordinator): (623) 236-7292, or Janet Freed at (623) 236-7291.
- 3) AGFD Region II Supervisor: (928) 214-1240.
- 4) Eric Gardner (AGFD – Nongame Branch Chief) at (623) 236-7507 (work), (602) 350-4004 (cell). Arizona Game and Fish Department Dispatch 623-236-7201
- 5) Rob Clarkson, Bureau of Reclamation: 623-773-6252

Finally, remember that if you have a handheld radio that is capable of transmitting on the standard nationwide emergency frequency of 121.5 MHz, use it to contact an overhead commercial flight (tour helicopters or overhead jets). You can also try 124.85 for commercial airlines (jet). Once you contact them, request that they relay your message to Tonto National Forest Dispatch. Again, state your location and the nature of the emergency. It is a good idea to follow up any such requests by double checking with a second radio contact to make SURE your message was transmitted to the Dispatch Center.

APPENDIX 1

ONLINE, INSTRUCTOR LED, AND AVIATION CONFERENCE AND EXHIBITION (ACE) TRAINING

The Department of the Interior requires initial and recurrent aviation training for personnel involved in aviation activities. Two of the most common courses are the B-3, Aviation Safety, and M-3 Management Training for Supervisors. The B-3 is mainly for employees who are directly involved in aviation flight activities. The M-3 is for Managers and Supervisors. The DOI regulations require this training to be taken every 2 years. The FWS recommends initial training be accomplished at an instructor led class by an Interagency Aviation Trainer, or by attending an ACE training session. However, the FWS also realizes that attending one of these may not be practical, so initial training is also authorized on-line for first time users. Recurrent training may be accomplished either on-line or at an instructor led class. You may register for either on-line, or instructor led classes, at the Interagency Aviation Training (IAT) website. The instructions for logging on are listed below.

For Course Registration

- 1) Log on to www.iat.gov 2) If you have already created a user file, Log In. 3) If you have not yet created a user file, create one at Sign In, then Log In.
- 4) After you have logged in, click on [Take Online Training Courses or Register for Instructor Led Classes](#). You may also view your training schedule or your training record on this website.
- 5) Scroll down, and click on the course/courses you need to take. For the B-3 you will need to take A101, A105, A106, A108, and A113. For the M-3 you will need to take M3.

For ACE Registration

- 1) Log on to www.iat.gov 2) If you have already created a user file, Log In. 3) If you have not yet created a user file, create one at Sign In, then Log In.
- 4) After you have logged in, click on [ACE](#) and follow the directions. The computer will typically not let you register for a particular ACE course until several months before the ACE actually takes place.

Appendix II: Maps

Figure 1: Map of Fossil Creek staging locations for fuel truck and helicopter. Yellow star indicates Camp Verde and red line is driving route to staging at Stehr Lake

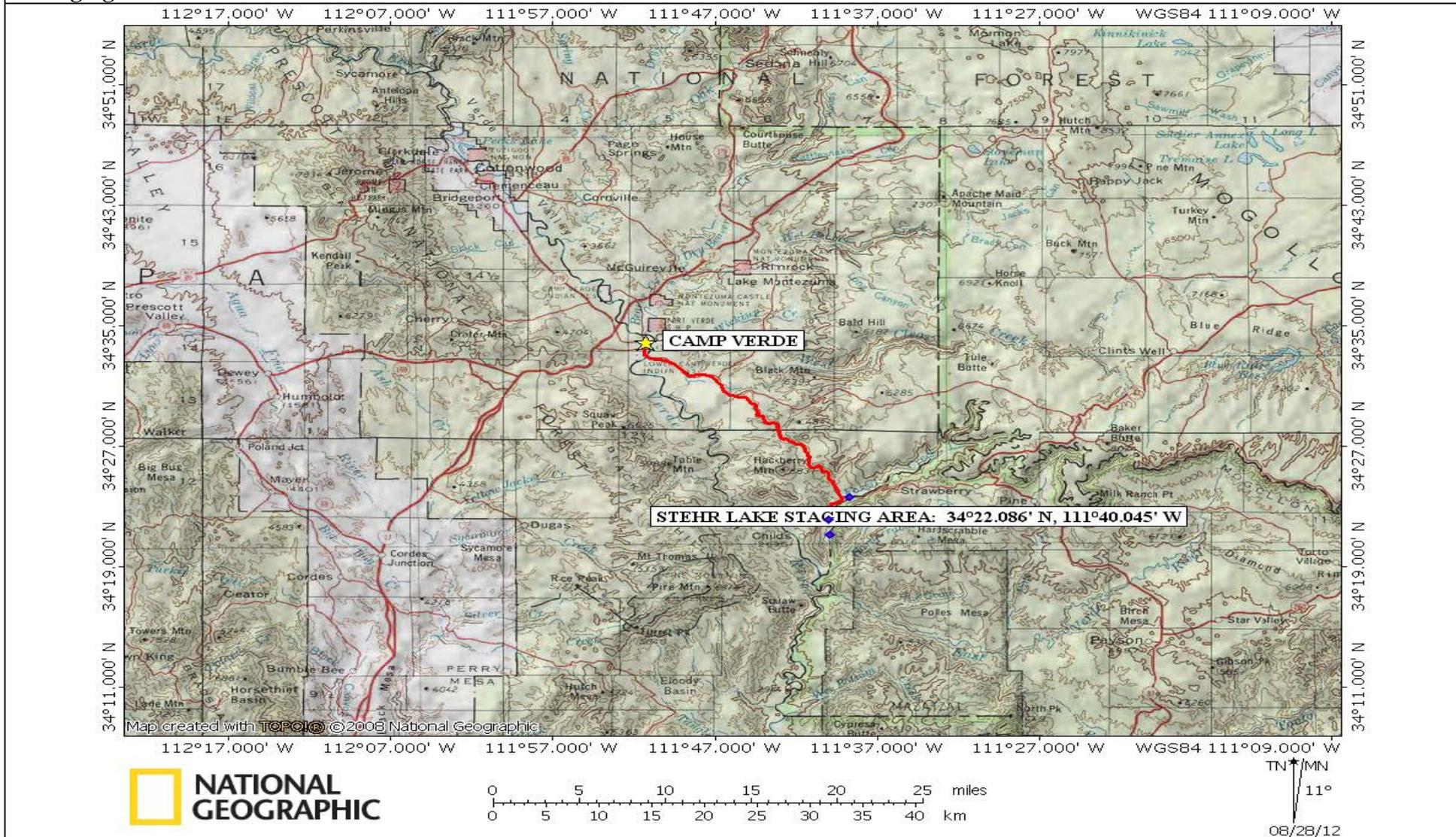


Figure 2: Map of staging location and flight path for flights 2-27. Stehr Lake staging area and the supplies drop location are indicated.

