

Air Patrol Manual

675. General

This section has been included in the Ranger Manual to provide you with guidelines for air patrol operations in Glen Canyon National Recreation Area. Extensive air patrols in connection with official matters are not commonly resorted to as operational aids in most other areas administered by the National Park Service. As a result, many of our Rangers and other employees who have transferred here from those other areas, as well as recently appointed ones, may not have had the benefit of more than basic flight experience. For those men, particularly, the suggestions and recommended procedures contained herein may prove helpful in making our official flights more pleasant, safe and more successful operation-wise. Several directives have also been included to outline our general procedure for scheduling flights, reimbursements and related matters.

676. Need for Air Patrols in Glen Canyon National Recreation Area

2233 square miles of land are under the jurisdiction of the National Park Service in Glen Canyon; an area roughly 144 miles long and 25 miles wide as the crow flies. For the sake of comparison, Delaware has 2057 square miles of land, Rhode Island 1214, and the neighbor State of Utah 84,916. While the land extent, itself, under our administration is formidable when considering operations of search and rescue, development and other protection and administrative matters, the nature of the terrain and practical access to it are decisive factors in consideration of extensive air operations. A vehicle trip to Hite, Bullfrog Creek or Hole-In-The-Rock requires at least a full day of constant driving and will continue to do so after roads are improved. A flight to Hite may be made in 45 minutes. Cost-wise, the flight is cheaper than road travel. An extensive search for a lost person in this canyon country could not be made practically, in most cases, without the assistance of aircraft. Many rescue missions could not be successful without the assistance of helicopters. Supply of official parties in many conceivable operations would depend on air service. The character of the country and its usage by the public will not change the requirements for air patrols following the impoundment of Lake Powell; they will only intensify the need.

677. Authorization Procedure for Flights and Air Patrols

Personnel of the Division of Ranger Services in Glen Canyon will request authorization from the Chief Ranger or, in his absence, from the official acting in that capacity. In case of emergency and when the Chief Ranger or Acting Chief Ranger is not immediately available, the Superintendent, of course, can authorize a flight.

678. Personal Reluctance to Fly

Rangers and other protective personnel who have any personal reluctance to make air patrols or other flights will not be required to do so. Any such aversion will not be considered in official personnel appraisals and will not hinder the course of an employee's career. It naturally might be taken into consideration as far as his assignments within the area are concerned. Any Ranger who does not desire to fly should make that feeling known to his supervisor.

679. Flight Arrangements and Chartering

Arrangements for authorized flights will normally be made through the Chief Ranger's Office with the cooperation of the Division of Administration. The procedure for payment for charter service will be in accordance with current directive from the Administrative Assistant but normally will consist of issuance of a transportation request form.

680. Charter Services and Other Flights

Official flights for employees will only be arranged with those individuals or companies who offer reliable, authorized services and whose reputation is generally recognized for competent operations. Service out of area headquarters at Wahweap is, at present, supplied us by Page Aviation based at the Page airport. In case of some operations, particularly search and rescue, you might be assigned to fly with recognized operators of helicopters including those of the military services who may assist in our activities when called upon.

681. Types of Planes Used in Air Patrols

Planes normally furnished us for charter service for air patrols are the reliable Cessna 180 and 182. Both of these aircraft give a comfortable ride as well as providing excellent visibility of the ground which is so essential to our use. The cruising speed of both the 180 and 182 is about 150 mph.

682. Prescribed Uniforms for Air Patrols

Any of the uniforms designated in the Uniform Manual may be worn on air patrols in the prescribed conditions. It is suggested that you will find the uniform hat (Stetson) somewhat awkward in light aircraft and that the field cap be worn if circumstances permit you to have it at hand. In most of the light planes, however, there is a shelf behind the rear seat where the Stetson can be placed if desired. It is also suggested that if pre-flight time permits you may desire to replace dress shoes (when worn) with field shoes or boots. In case of an emergency landing or unanticipated situations you will be better prepared in stout boots. In cold weather it would be wise to take a warm jacket along even if it is not necessary to wear it in the plane.

683. Your Conduct at the Airport

Your conduct at the airport should be a matter of using your common sense and abiding by the request of the management. Careful attention should be paid to your smoking habits. Smoking of any kind is nearly always prohibited in hangers, near planes or fueling facilities and on the runways. Do not smoke as you approach the grounded plane to enter it for flight. Smoking during takeoffs is also prohibited but, usually, pilots do not object to such when you are well airborne. Airport operators and their mechanics usually do not object to casual inspection of the aircraft in for repairs or storage, but they do not enjoy visitors tinkering with such planes, work benches, tools and other equipment. Good manners on your part are all that is requested.

684. Approaching the Aircraft and Preparing for Flight

When the pilot or other airport official indicates that he is ready for you to load the plane, you should discard your smoke, approach the plane with caution, and enter the plane from the right-hand side as is customary. In Cessna models, it is necessary for the passenger who is to sit up front to enter first. He then slides his seat forward as far as it will go to allow room for the rear seat passengers to enter. It is also customary for the pilot to sit on the left side even though controls are rigged on both sides of the craft. Be careful of the plane and its hardware. Doors, for example, should not be slammed shut by pulling on the release or locking handle. During warm seasons of the year the plane may be uncomfortable while on the ground but will, of course, cool nicely when airborne. Fasten your safety belt so that it is snug and secure. Unlike most airline flights in large aircraft, where removal of the belt is sometimes permitted, it is understood in light planes that you will keep it secured throughout the flight.

When approaching helicopters, the same rules apply, with the additional hazard of the rotor. When approaching a helicopter with the rotor in motion, wait for a signal from the pilot. Keep your head lowered, and approach from the side or front in the case of single rotors. For dual rotors, such as the Jet Kaman used by the military, approach from directly in front. Never approach or walk near the tail section of any helicopter.

685. The Flight Operation

Before flight take-off, the person in charge of your party will usually brief the pilot on your proposed operation, desired air coverage of terrain, particulars concerning places or objects to be scouted, your desire for photographic record, and any other details that might assist him in planning his actions. The pilot, of course, is in full command of the aircraft at all times. While he will usually respect your requests within the limitation of safe flight procedures, his plane and good judgment, you are reminded that embarrassment will be saved you and the pilot if you do not persist in a request following an initial refusal from the pilot.

686. Aerial Observation

Your flight mission will, most commonly, be for transportation within the area; a routine patrol; a patrol for a specific objective; or in connection with search and rescue operations. On occasion, you may also be assigned to air-drop activities to support a ground party. When engaged in any operational flights, you will be expected to give alert surveillance to the area for the purpose of detecting any unusual activities or conditions. It is important that you stay constantly aware of your geographical position. When you lose track of your bearings and landmarks, the pilot will be willing to assist in reorienting your position.

Most fliers and observers find that good grade sunglasses are a great assistance and particularly when they have the lighter shade lenses. Binoculars in a light plane are cumbersome and difficult to use with any advantage. They should be carried for assistance in spotting specific objects, however.

Learn to scan the terrain with a pattern of coverage that will lessen the chances of overlooking activities or unusual objects. You will, of course, only have an opportunity to observe the ground on your side of the craft. If you should spot something of interest that needs a second or closer look, ask the pilot to swing in over it. If flight conditions warrant he will, undoubtedly, consent. You may have to guide him in on it so keep the position of the point on the ground clearly oriented in your mind during the ensuing maneuver. It is not very practical to attempt to use a topographical map while engaged in flights so any ground sightings that appear to need follow-up action should be kept well in mind as to position. It is much more reliable to carry along a small notebook to make notations as to location, time, etc. Again, the pilot will assist you in making such records.

687. Radio Communications on Operational Flights

The planes usually chartered for our operational flights are radio-equipped and, therefore, have communication with their home base and other stations which may be worked on the available frequencies. Since such equipment is available and on which the plane may contact the airport who can, in turn, relay a message to headquarters by telephone, it is not customary that we carry radios fixed on the NPS operating frequency on our routine flights.

When, however, you may be flying on a search or rescue mission or on any other operations where constant contact with headquarters from the plane is desirable, a portable radio fixed on the area frequency should be carried in the plane. We presently own one such set that is satisfactory for this service. This pack set is, of course, battery operated and has been equipped with a handset for voice transmission and receiving. The handset has a button on the handle which must be depressed to transmit. Experience indicates that the operator of this set can, while flying at elevations of about 6,000 feet or more, keep in contact

687. Radio Communications on Operational Flights (continued)

with headquarters as far up-country as Bullfrog Creek. At closer distances, the elevation need not be so high. You can also converse with any mobile set when it is at a reasonable distance. We have had success as far as twenty or thirty miles when there are no intervening obstructions. Reception will be best when the plane you are flying in is equipped with an exterior receptacle jack so that the antenna may be removed from your set and jacked into the fusilage socket. The radio is, in turn, connected to the cabin cord leading from the antenna. Some planes are not so equipped and, in such cases, the radio may be operated with the antenna in place on the set inside the cabin. Such an arrangement will reduce your operating efficiency.

688. Forced Landings, Prevented Take-Offs, and Other Emergencies

Anyone who flies in aircraft faces the possibility that at some-time he may find himself the victim of a forced landing, a plane that is prevented from taking-off from an isolated airstrip for one reason or another, or some other such emergency. The advisable course of action in such cases depends almost entirely on the situation, but there are some general rules of procedure that should be kept in mind and given serious consideration if you should find yourself in such a position.

In the event of a mechanical failure or other fault that foretells the necessity of an emergency landing, you will, of course, be guided by the advice of the pilot. Your future, at least while airborne, is in his and God's hands. Your actions during such a time are unpredictable, but you will need to fight the inevitable fear with every ounce of energy. Your life may depend upon your ability to remain calm and to react quickly.

Once upon the ground, you will more than likely consider yourself in your own element. Your first step will be to take stock of the immediate situation. In case of a crash landing, your initial action will be to take care of any personnel injuries. After such immediate emergencies are dispatched to the extent possible, you will then begin to plan your operation according to the predicament. Unless there are extenuating circumstances that make it absolutely necessary or highly desirable that you evacuate the landing site, you are directed to remain at that position. If the plane is in a position that would make it unlikely to be seen from the air, then the flight party should move into a more favorable location nearby. You must retain full confidence that an immediate search operation will be put in action following an overdue flight. Headquarters will, of course, know your anticipated itinerary and route. You should be prepared to assist an air search by preparing a large pile of flammable material that can be lit off at a moment's notice. The more smoke the better. This signal fire should be set even if you should need another for warming or other purpose. Under any circumstance that can be predicted, your party should remain together.