



# Recreational Airstrips on Public Lands

**A Reference Guide for Public Land Managers**

Prepared by the

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## Recreational Airstrips on Public Lands

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# **Recreational Airstrips on Public Lands**

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## **Executive Summary**

The Recreational Aviation Foundation represents backcountry pilots and aviation groups working to preserve and promote recreational use of airstrips on both public and private lands.

For almost a century such airstrips have been a part of our country's heritage. These airstrips enjoy a proud history of traditional use, providing valuable access to remote and scenic areas for a wide variety of purposes. These include enabling backcountry pilots and their passengers to enjoy fishing, camping, backpacking, hunting, and other recreational activities in these areas and by a method otherwise unavailable to recreational users.

Historically these airstrips have been uncontroversial, and did not represent major concerns or management difficulties for those entrusted with stewardship of public lands. Small, unattended remote strips needed little in the way of resources, and have been enjoyed quietly by many different users for more than eighty years.

However, because of changing societal needs and the increased pressures on such lands for a wide and increasing variety of uses, managers with little aviation experience or understanding may unilaterally decide to neglect or close them, unaware of the many recreationists who may be using them, or of the benefits that the airstrips offer to the local and regional communities and their economy.

Concerns about potential distraction of management energy and possible costs related to dealing with potential noise issues, environmental impacts, or liability may also make inexperienced managers too quick to hamper or restrict traditional use of such airstrips.

The Recreational Aviation Foundation has worked with the public, numerous closely allied aviation groups, and a number of agencies in several states and locations in developing information and management planning tools that preserve the historic airfields and involve appropriate partnerships to provide for their ongoing management and maintenance while imposing a minimum burden on the owners of such lands, whether public or private.

Thus, the Recreational Aviation Foundation proposes working with appropriate federal land agencies to assist the various managers in making decisions that are based on credible information that local land managers can use to implement airstrip management plans for aeronautical use of the lands and facilities located within their jurisdictions. The following document was developed by the Recreational Aviation Foundation to assist the local land manager in making informed decisions in regard to recreational airstrips and their public use.

## **General Introduction**

The use of general aviation aircraft for recreational purposes is strong in the United States, especially in the western states. Aviation publications such as Pilot Getaways, Fly the Big Sky, Fly Utah, Fly Idaho, Plane and Pilot and other periodicals promote the west as a destination for pilots and their families with numerous types of recreational opportunities. There are several web sites that also promote backcountry flying and discuss issues pertaining to the subject. For sample web sites, refer to: [www.supercub.org](http://www.supercub.org), [www.backcountrypilot.org](http://www.backcountrypilot.org), [www.shortfield.com](http://www.shortfield.com).

Recreational pilots generally fall into one of two general groups. The first group consists of those pilots who use personal aircraft to fly to a destination airport where they can access more common types of outdoor recreational opportunities like resorts, or they may just land for breakfast or lunch at an airport restaurant and then fly home. They generally prefer paved runways or well maintained, smooth turf strips.

The second group often use their planes to fly to more remote locations where they can camp under the wing, take day hikes and participate in other outdoor activities such as fishing, hunting, wildlife viewing, photography, bird watching, studying plants, looking at the natural land forms and just enjoying the great outdoors. Their planes are suitable for more primitive gravel and grass runways. There are many locations on the nation's public lands that provide ideal locations for these recreational opportunities.

Recreational airstrips are an integral part of a balanced transportation system for public access wherever public lands are being managed for a variety of recreational pursuits. Airstrips not only provide public lands access to pilots with their family and friends, but also provide easy access for people of all ages who do not have the capability to travel long distances over rough roads and trails. Airstrips serve as internal trailheads.

Airstrips need to be available to a variety of aircraft and pilot capabilities. Not all pilots have received specific training for flying in the mountains, and some aircraft are not capable of safely operating in and out of higher altitude landing strips. Recreational airstrips need to be available not only in the traditional mountain setting, but also in the prairie and valley areas of the West. The average pilot, family and friends should be able to have the availability of landing and camping in a remote setting that provides the opportunity for good hiking, wildlife viewing and experiencing the flora and fauna just as other user groups can do. The only difference is the chosen mode of transportation to arrive at the remote setting.

As will be discussed in detail later, the use of aircraft as part of a balanced public lands transportation system fits right in with the multiple use mandates for most public lands without causing degradation of the land. The overall vision and management goals for public lands should, among other things, provide for: 1) diverse recreation opportunities, 2) sustainable multiple means of transportation and 3) dispersed recreation opportunities.

Currently, there are numerous locations where there are public airstrips upon lands administered by the Bureau of Land Management, U.S. Forest Service, and National Park Service. There are airstrips within Wild and Scenic River corridors. Montana has two public airstrips within a Wild

and Scenic River corridor: Meadow Creek on the South Fork of the Flathead River, and Schafer Meadows on the Middle Fork of the Flathead River. Schafer Meadows is also in the Great Bear Wilderness. There are four public use airstrips on the Middle Fork of the Salmon River in Idaho, a designated Wild and Scenic River within the Frank Church River of No Return Wilderness. In Idaho there are a total of nineteen public airstrips located throughout the Frank Church and Selway/Bitterroot Wilderness areas as provided for in the Central Idaho Wilderness Act of 1984. Although these airstrips predate the subsequent land management criteria, as will be discussed later, careful review over many years has shown these airstrips to be compatible with the natural ecosystem.

When what is now Death Valley National Park was still a National Monument, there were three public airstrips within the Monument, one of a primitive nature. Those airstrips continue to exist under the administration of the National Park Service and are open to the public. Craters of the Moon National Monument in Idaho has three backcountry public airstrips. Utah also has active remote recreational landing strips on BLM and State lands and also in Wilderness Study Areas. The Upper Missouri River Breaks National Monument has six backcountry landing strips approved in the final Monument Resource Management Plan.

### **Congressional Action: U.S. House of Representatives Resolution 1473**

On September 15, 2010, the U.S. House of Representatives passed by unanimous vote House Resolution 1473, a resolution supporting backcountry airstrips and recreational aviation on public lands. The resolution was introduced by Representative Denny Rehberg (R-MT) along with co-sponsors Allen Boyd (D-FL), Vern Ehlers (R-MI), Walt Minnick (D-ID), Mike Simpson (R-ID), Sam Graves (R-MO), Pete Olson (R-TX), Jason Chaffetz (R-UT), John Salazar (D-CO), Bobby Bright (D-AL) and Collin Peterson (D-MN). The resolution shows congressional support for backcountry airstrips and recreational aviation. The resolution concludes with the following statement:

*Resolved*, That the House of Representatives recognizes the value of recreational aviation and backcountry airstrips located on the Nation's public lands and commends aviators and the various private organizations that maintain these airstrips for public use.

The associated "Dear Colleague" letter and the full text of the resolution are found in Appendix G on page 55.

## Examples of Airstrips on Public Lands

### 1) Utah Airstrips on BLM Administered Lands:



#### **Horseshoe Canyon Airstrip**

*Horseshoe Canyon airstrip, situated on BLM lands in southeast Utah, provides public access without off-road vehicle damage to the landscape.*



#### **Dirty Devil Airstrip**

*Dirty Devil airstrip, on a bench above the Dirty Devil River in southeast Utah, provides recreational opportunities such as hiking, exploring, geology studies, camping and solitude. There is little conflict with other public lands users in this area.*

## UTAH, continued



**Public Airstrips can be a part of a balanced transportation system on public lands**  
*There is plenty of room for various user groups: 4X4s, ATVs, Motorbikes, and Recreational Aircraft*



### **Sign at the Mexican Mountain Airstrip**

*Cooperative efforts between the Bureau of Land Management and the Utah Backcountry Pilots Association work for everyone. This area, in a Wilderness Study Area, is used by hikers, who may not be aware of the airstrip's existence. Public safety is a primary concern for the continued operation of the airstrip.*

## 2) Montana Public Airstrips on U.S. Forest Service Land:



### **Schafer Meadows Airstrip, Flathead National Forest**

*Schafer Meadows Airstrip in Montana's Great Bear Wilderness provides an internal trailhead for numerous recreational activities. Airstrip maintenance is a cooperative effort between the U.S. Forest Service, the Montana Aeronautics Division and the Montana Pilots' Association. Forty percent of the airstrip usage is for floater access to the Middle Fork of the Flathead River. Other uses are for camping, hunting, hiking and fishing access, plus Forest Service administrative use.*

## 3) Idaho Public Airstrips on U.S. Forest Service Land:



### **Shearer Airstrip**

*Shearer Airstrip in Idaho is located within the Selway/Bitterroot Wilderness Area next to the Wild and Scenic designated Selway River. This airstrip serves to provide public access for camping, hiking, fishing, hunting and floating the Selway River. The airstrip is situated in a natural clearing and cannot be seen from the river. Whenever possible, airstrips are sited on natural open areas or on natural prairie grasslands.*

## IDAHO, continued



### **Mahoney Creek Airstrip**

*Mahoney Creek Airstrip is located in Idaho's Frank Church River of No Return Wilderness within the Wild and Scenic corridor of the Middle Fork of the Salmon River. The airstrip is used for general fishing and hunting access as well as bringing in supplies to a nearby outfitter's hunting camp. There is no evidence when floating the river that the airstrip exists.*

## **4) Montana Public Airstrip on Bureau of Land Management Land**



### **Black Butte Airstrip, Upper Missouri River Breaks National Monument, Montana**

*This airstrip is located on lands managed by the BLM. It is used for recreation such as camping, hiking, studying the unique geology of the area, and wildlife viewing. Maintenance is by pilots, using only hand tools.*

## 5) California Public Airstrip, Death Valley National Park



### **Chicken Strip, Saline Valley, Death Valley National Park**

*Chicken Strip is located at the north end of the Saline Valley, a short walk from the Saline Valley hot springs. This hot springs consists of several semi-primitive bathing pools and a scattering of palm trees. The only other means of visiting the site is by driving hours over a very primitive two track road using 4X4 vehicles. The Recreational Aviation Foundation has a Memorandum of Understanding (MOU) with Death Valley National Park to assist in the maintenance of this airstrip and the other two airstrips located within the Park.*

## 6) New Mexico U. S. Forest Service Public Airstrip



### **Negrto Airstrip, Gila National Forest**

*In the fall of 2010 New Mexico Recreational pilots organized a fly-in to Negrto Airstrip, a USFS airstrip situated on a grassy flat at 8,300 feet above sea level. The airstrip is used on occasion as a fire base for USFS fire operation. It has two long runways and clear approaches, and thus serves well to introduce pilots to high altitude airstrip operations. Volunteers, collaborating with the USFS, are working to maintain and improve the facilities.*

## **Effects of airstrips on the landscape**

### **1) Aircraft versus other types of motorized transportation.**

Throughout the West there are numerous forms of transportation on the public lands, from hiking, horseback and various methods of wheeled vehicles, both non-motorized and motorized. Each of these uses is legitimate as long as the disturbance to the public land resource is within limits prescribed by societal and ecological values. There is a broad mix of motorized and non-motorized means of access, each with its own effect on the environment, aesthetics and personal values and desires.

Aircraft are just one of several motorized means of accessing public lands for recreational purposes. However, aircraft have the unique capability of reaching an internal trailhead destination without traveling on the landscape except when they land and takeoff. Aircraft do not have powered wheels. Once an aircraft rolls to a stop, it remains in one place, and for all intents and purposes the occupants are hikers accessing public lands. The airstrips themselves take up very little land at a location that is usually relatively flat and not subject to erosion. These airstrips tend to maintain their vegetative cover. Since aircraft are not mechanized vehicles in the traditional sense, they are incapable of spinning their wheels, churning up hillsides, and otherwise tearing up the landscape. Airstrips are not suitable for use when the ground is soft and pilots are aware of seasonal limitations. Aircraft do not enter riparian areas, need stream crossings, nor do they leave ever-deepening ruts in wetlands or grassy meadows as is commonly observed with ATV traffic, trail bikes or even horses and mule pack-trains. Airstrips leave a far less over-all foot print on the landscape compared to just a few miles of dirt road or trail.

The amount of land that airstrips physically occupy is minimal and the resources needed for their maintenance require little financial input from the public land managers. Many state pilot organizations such as in Idaho, Montana, New Mexico, Oregon, Utah and Washington participate in annual airstrip maintenance sessions on public land airstrips, performing such tasks as the installation of safety items like windsocks and airplane tie-downs along with the removal of obstructions such as timber encroachment plus the maintenance of other facilities such as primitive camp grounds. In contrast, other user groups, in order to meet their needs, may require graveled roads, parking areas, equestrian trails, horse unloading ramps, picnic tables and shelters, BBQs, campgrounds, garbage service and other amenities.

In the Frank Church Wilderness in Idaho there are nineteen airstrips that were grandfathered in as part of the Central Idaho Wilderness Act. After more than 60 years of use by aviators, both private and administrative, close scrutiny and monitoring of the wilderness landing strips has shown virtually no undesirable impact to the lands they occupy and the associated ecosystems. Similar observations occur in regard to the U.S. Forest Service public airstrips in Montana.

### **2) Airstrip usage: pilot numbers and aircraft growth forecast**

Due in part to more comprehensive aircraft operator licensing requirements and pilot medical certification, there is low potential for heavy airstrip usage when compared to other methods of motorized transportation with their much less demanding licensing standards or the total absence of any standards of operation or vehicle inspection.

Unlike the rapid growth rate of most types of recreational activities, the use of personal aircraft is forecast to have very modest growth over the next twenty years. The Federal Aviation Administration forecasts that the average annual growth rate of individuals earning the basic

private pilot certificate to be 0.8% over the next twenty years. The average annual growth rate for numbers of fixed wing piston planes is forecast to be 0.2% over the same time frame.

In comparison to virtually any other recreational user or use, airstrips and aircraft are very low impact. The pilot community strongly subscribes to the “Tread Lightly” and “Leave No Trace” camping ethic that the U.S. Forest Service requests of users, as well as “Fly It In, Fly It Out”. If you visit the current airstrips on public lands throughout the West, you will not find a garbage can, and you seldom find any trash. State pilot groups monitor airstrip usage and clean up after the few who may abuse the site.

### **3) Aircraft recreational access versus access using pack stock.**

Airstrips serve as internal trailheads to the backcountry beyond the reach of traditional motorized vehicles. The wear and tear on the land is considerably less with aircraft access than access with pack animals which may involve fording of streams, incising of trails into the landscape with associated erosion, braiding of trails across wet meadows, consumption of vegetation and damage where animals are tied to trees.

Two adults and perhaps two children plus their camping gear usually occupy the typical four place aircraft that is flown into the backcountry. In order for four people to ride into the same area on horseback, a minimum of six animals would be used; four for riding and at least two for pack stock. However, each user group should have similar opportunities to reach the backcountry by their chosen method of transportation.

### **Other uses of recreational airstrips**

#### **1) Emergencies**

Emergency landing sites are of vital importance. In the event of a mechanical problem or inclement weather, the existence of backcountry airstrips provides the opportunity to make a landing that would insure the safety of the aircraft occupants as well as prevent the destruction of the aircraft. By having the airstrips depicted on the aeronautical chart with a three character FAA identifier, a pilot can quickly find the closest airstrip using the “nearest airport” function on the aircraft GPS. One example is provided in the SAFECOM report provided in Appendix A which details an emergency landing at the Wurtz airstrip on Forest Service land in northwest Montana. However, this unfortunately happens to be an airstrip on which the Forest Service will not allow maintenance and wants the land to revert to its natural state. But it probably saved the lives of three people. The refueled aircraft barely took off in time before forest fire swept through the area.

#### **2) Law enforcement and search and rescue**

Law enforcement officials and federal, state and local agencies can find these airstrips useful for fire management efforts, support of ground personnel in crime investigation, and in search and rescue.

### **3) Resource management**

Aircraft are important tools in the assessment and management of natural resources. Thus, backcountry airstrips can prove useful to state and federal agencies. Many states use aircraft to monitor wildlife and track radio-collared animals and other natural resources. Aircraft and backcountry airstrips are also useful in the enforcement of fish and game regulations. Most aircraft insurance policies are void if the aircraft is used for any unlawful activity, including the harassment of wildlife.

### **4) Elderly and handicap transportation**

The use of aircraft to access backcountry areas can provide for a unique experience for the elderly or people with physical handicaps. The combination of a flight into the far reaches of a National Forest, BLM lands or even a National Park such as Death Valley and then touring the immediate area from the ground would be a meaningful opportunity for people with limited capabilities or who cannot tolerate a long, exhausting journey by vehicle or horseback. Organized flights for the disabled would give the public land manager the opportunity to provide on-site educational presentations on the local history and ecosystems. This is currently being done in Idaho's Frank Church River of No Return Wilderness through a successful program called "Wilderness Within Reach". Pilots volunteer their time and aircraft to transport disabled people to wilderness areas they would otherwise have no possibility of visiting.

#### **Airstrip operations: frequency of use, season of use, type of recreation**

The number of aircraft using an airstrip is limited in many ways by season and weather. Data shows that during the flying season there would be an average of no more than one aircraft operation per day at most recreational landing strips, and that would be on an irregular basis. Montana's busiest U.S. Forest Service public airstrip, Schafer Meadows, (which also has the most recreational amenities) has on average less than three operations per day on a season average. This figure is verifiable data with the U.S. Forest Service.

Various weather factors play an important role in affecting frequency and timing of recreational airstrip use. Occasional extreme summertime heat and turbulence would limit use. Frequent windy days in the spring also tend to reduce flying activity early in the flying season. During periods of low clouds and precipitation, there are usually no aircraft arrivals and departures. Little or no flying takes place during the winter months where snow renders the landing strips unusable.

Most summer flight operations occur before mid-morning or late in the day when the air is cooler and calmer. People flying in for the day would usually arrive no later than mid-morning and depart in the evening. Based on pilot registrations at various U.S. Forest Service airstrips, campers typically stay two nights or less except during hunting season.

## Airplane Camping Examples

### MONTANA



### **Airplane Camping in Montana’s Upper Missouri River Breaks National Monument.**

*Once on the ground, the fly-in visitors are hikers. The airplane engines are shut down until the people are ready to leave.*

At the time the Monument was proclaimed in January, 2002, under the Antiquities Act, there were ten primitive backcountry airstrips within the Monument. They were constructed in the 1950s. Six of the ten airstrips are now recognized in the final Monument Resource Management Plan as open for public use. They are now depicted on the aeronautical chart, each with an FAA assigned three character identifier.

## UTAH



### **Family Camping in Utah**

*A pilot from Minnesota and his ten-year-old daughter camp by their plane at Mexican Mountain airstrip on BLM lands in southeast Utah. The amount of camping equipment is limited by the physical room in the plane and the load carrying ability of the aircraft.*

This primitive airstrip is located within a Wilderness Study Area, but the construction of the airstrip predates the WSA designation. The BLM policy is “leave no trace” camping and maintenance is done by pilots using only hand tools.

## **Airstrip registration and charting with the Federal Aviation Administration**

Public use airstrips may be registered with the Federal Aviation Administration by using Form 7480-1. A copy of this form with instructions is found in Appendix F. From the data provided on the form, the FAA can then proceed to have the public use airstrip charted and given a three-character identifier. The form must be filled out in its entirety. Complete information is located at: [www.faa.gov](http://www.faa.gov).

## **Notification to pilots of temporary airstrip closure or condition**

In the event land managers need to temporarily close an airstrip, pilots can be notified of an airstrip status change by following standard flight briefing procedures.

If the public airstrip has been issued a three-character identifier by the Federal Aviation Administration (FAA), the land management agency having jurisdiction over that particular airstrip can request the FAA to issue a NOTAM (NOTice To AirMen) on that airstrip by telephoning 1-877-487-6867. A NOTAM is a notice containing time-critical information that is either of a temporary nature or is not known far enough in advance to permit publication on aeronautical charts or other aeronautical publications. The flying map that most pilots use is called a Sectional Chart and is revised every six months. This NOTAM information is provided to the pilot when the pilot makes a request to the FAA for a flight briefing, either by telephone, computer or radio communications. By regulation, it is the pilot's responsibility to obtain all applicable information needed for an intended flight. This includes a request from the FAA for any pertinent NOTAMS.

An example of an airstrip closure occurs in southeast Utah every fall. The Southern Utah Wilderness Alliance desires to use the site of the Hidden Splendor airstrip for an association gathering. In the spirit of cooperation and to minimize user conflicts and promote public safety, the aviation community of Utah has the FAA issue a NOTAM of airstrip closure for the duration of the gathering at the Hidden Splendor airstrip location. NOTAMS may also be issued when it is necessary to close a runway because of an unsafe condition, such as following a sudden storm that creates deep gullies and washouts across the landing area.

If the land manager determines that a particular airstrip needs to have a seasonal closure on an annual basis, the land manager notifies the FAA and this information is disseminated in the FAA Airport Facilities Directory. See the example below of an airstrip located within the Upper Missouri River Breaks National Monument. The seasonal closure is for wildlife security.

**WOODHAWK** (WH0) 15 NE UTC\_7(\_6DT) N47°46.77\_ W109°04.72\_ **GREAT FALLS**

3100 NOTAM FILE GTF

**RWY 09-27:** 1200X60 (TURF)

**AIRPORT REMARKS:** Unattended. Arpt CLOSED from Sep 1 to Nov 30 each year. No snow removal. Wildlife and cattle on and in vicinity of arpt. Rwy maintenance irregular. Rwy soft and muddy when wet. Commercial acft ctc BLM manager 406-538-1950.

**COMMUNICATIONS:** CTAF 122.9

### **Recreational airstrip considerations in regard to aircraft performance**

All makes and models of aircraft have different performance characteristics depending on the design of the airframe and the engine horsepower. The take-off performance of the aircraft (ground roll and rate of climb) is affected by the altitude of the airstrip, the air temperature, the wind velocity and direction, slope of the runway, runway surface and the take-off weight of the aircraft.

Field elevation has a major influence on takeoff performance. For example, with an air temperature of 20 degrees centigrade, a field elevation of 2000' and at a maximum gross weight of 2800 lbs., a Cessna 180 (a typical four place airplane used by recreational airmen) requires, under ideal conditions, a takeoff ground roll of 775'. If the airstrip elevation is increased from 2000' to 6000', the takeoff distance increases to 1130'. The rate of climb of the aircraft is affected in a similar manner.

If a land manager decides to close an airfield situated at a relatively low elevation with the idea of shifting the use to another airfield which happens to be at a higher elevation, the result may be a curtailment of recreational opportunities (especially for those pilots with lower horsepower aircraft) and thus affecting the safety margin of aircraft. See the Appendix H for a comprehensive example of aircraft performance data.

In summary, for the greatest number of pilots to have recreational opportunities in the backcountry, there must be a selection of suitable airstrips for a wide variety of aircraft that have various levels of performance.

### **Airstrip maintenance and cost**

Agreements can be reached between the aviation community and the appropriate public land agency to perform the needed maintenance work on the airstrips. Currently in Montana, there are joint airstrip maintenance plans between the U.S. Forest Service Spotted Bear Ranger District, the Montana Pilots' Association and the Montana Aeronautics Division for the Schafer Meadows, Spotted Bear and Meadow Creek airstrips. The Forest Service does not incur any expense in the direct maintenance of these airstrips. Printed airport directories describe the airfields and include any special pilot precautions that need to be observed for each airfield's safe use, plus any maintenance issues, which may render the airstrip unusable at certain times.

Joint Montana Aeronautics Division/Forest Service signs are posted at each airfield, providing useful information for pilots, as well as a pilot registration sheet to record airfield usage. The Montana Aeronautics Division provides safety items such as windsocks and runway marker cones. A similar program has long been in effect in Idaho involving the U.S. Forest Service, Idaho Aviation Association and the Idaho Division of Aeronautics. The State of Washington has similar agreements with various pilot groups, the US Army Corps of Engineers, Forest Service, and Bureau of Land Management. Volunteer groups typically donate hundreds, and in some cases, thousands of hours to maintain aviation access to the back country.

## **Airstrips and weeds**

With any recreational activity, there is the potential for the introduction of noxious weeds. However, aircraft are not "off road vehicles". Aircraft do not use travel corridors that are often weed infested. Furthermore, pilots strongly avoid taxiing their aircraft through areas of tall vegetation, which may be a weed area, to minimize the risk of encountering unseen holes and other obstacles that may damage the airframe or cause a prop strike. Thus, the risk of weed propagation/introduction is less among aircraft users of the backcountry than with other means of transportation/recreational use such as highway vehicles, mountain bikes, motorcycles, ATVs and livestock used for riding and packing due to less exposure to weed areas.

## **Qualifications of pilots and aircraft**

Pilots have large amounts of time and money invested in their training and their aircraft. Pilots and their aircraft are held to a significantly higher standard than any other group involved in personal, non-commercial transportation. Obtaining an automobile driver's license requires passing a short written test and practical driving test only once in a lifetime. Motorized vehicles that are operated off public roadways require no operator's license. This includes, but is not limited to, snowmobiles, motorcycles, OHVs, trucks and cars. Boaters require no operator's license. In many states there is no required periodic safety inspection of non-commercial vehicles. Pilot requirements are far more stringent.

### **1) Pilot licensing**

Pilots receive more extensive training than any other group that operates non-commercial transportation vehicles. To earn a private pilot's certificate the applicant must accumulate a minimum of forty hours of flight time composed of both flight instruction by a certified flight instructor and supervised solo time. The flight training includes landing and takeoff techniques for short and soft (non-paved) airfields under various wind conditions. Flight training is rigorous. Most persons require 60 to 80 hours of flight instruction and supervised solo time to earn their private pilot certificate.

Applicants for a private pilot certificate must also pass a comprehensive multiple choice written examination. The passing grade is 70% correct answers. Subject matter includes theory of flight, aircraft performance as influenced by altitude, aircraft weight and air temperature, as well as questions on weather, navigation, radio procedures, and FAA regulations. The written exam must be passed before the applicant is eligible to take the flight test. If the applicant does not take, and pass, the flight test within 24 months of passing the written examination, the written must be taken again.

When the student pilot is deemed prepared for a private pilot certificate, the applicant must take a comprehensive oral and flight examination by an FAA examiner or designee. The test covers rules, flight procedures, cross country flight planning, weather, flight maneuvers, emergency situations and the overall aptitude of the applicant. This oral exam and flight test usually lasts

more than two hours. Many pilots continue their flight training to earn advanced ratings to improve their proficiency, safety and reduce insurance costs.

Pilots must pass a physical exam that includes general health, vision and hearing. The flight physical is geared to determine the applicant's health in regards to flying a plane, not the ability to engage in vigorous physical activities. It is more than just a routine physical. The physical is also a check of cognitive ability, recent criminal history, and other related topics. Pilots are also held strictly accountable for the accuracy and truthfulness of their responses to the medical questionnaire. Flight physicals for private pilots are required every three years for those individuals under age forty and every two years for those over that age. The flight physicals can be administered only by an FAA designated medical examiner.

## **2) Recurrent training and record keeping**

Pilots are required to keep a logbook of their flying time for the purpose of showing that they are qualified to fly the plane they intend to operate and to demonstrate flight currency in that aircraft. Every two years a pilot must have a flight review administered by a licensed flight instructor. The successful completion of this review is entered in the pilot's logbook. The minimum content of the review is one-hour oral critique of the pilot's aviation knowledge and one hour of flight time.

The FAA offers a "Wings" program, which is a series of seminars and flight training sessions to assist the pilot in maintaining flight proficiency as well as currency in the arena of regulations and procedures. Continuous training is paramount to achieving a high level of safety. Pilot participation may lower insurance rates.

There are several private flight schools that specialize in training pilots in mountain flying procedures. They typically last several days with flying done in the morning and ground school in the afternoon. The best known mountain flying school is McCall Mountain Canyon Flying, LLC, McCall, Idaho ([www.mountaincanyonflying.com](http://www.mountaincanyonflying.com)). There are several instructional books available on mountain flying operations and safety.

Pilots are also subject to unannounced "ramp checks". This occurs when an FAA inspector comes up to the pilot out on the flight ramp and requests to see the documents for both the plane and pilot. No other recreational users of the public lands are subject to such scrutiny without any probable cause. The inspector also has the authority to "ground" the aircraft if it appears from an external examination that the aircraft is not airworthy or incorrectly loaded. The pilot can be "grounded" if required documentation (license, photo ID, a current medical certificate and biannual review) are not on their person, or if they are observed to be in violation of certain regulations. Based on the FAA inspector's observations the FAA may take additional enforcement actions against pilots and aircraft owners. Enforcement actions may include suspension or loss of some or all flight privileges, and monetary fines.

In summary, much emphasis is placed on safety throughout pilot training, certification, recurrent training and aviation culture. Furthermore, the Federal Aviation Administration serves in a strong oversight role in all aspects of aviation.

### **3) Drugs and alcohol**

All pilots closely monitor their use of drugs and alcohol. Federal Aviation Regulations clearly state that the operation of an aircraft is strictly prohibited where there is a pilot blood alcohol level .04 percent or more and that eight (8) hours have not passed after drinking alcohol. The standard limits for driving on public roads are .08 percent, twice the level of pilot limitations. Pilots must report any drunken driving convictions to the FAA within sixty days of the infraction, as well as report any conviction when renewing their flight physical. Drunk driving or other misdemeanor convictions are grounds to deny the medical certificate. This voids the Private Pilot Certificate, denying the pilot any flight privileges. The use of any illegal drug is strictly prohibited. Any drug related conviction in a court of law results in loss of the pilot's license. Illegal drug use must be reported during the flight physical. The use of prescription drugs, and even legally purchased "over the counter" drugs, is highly regulated.

### **4) Aircraft licensing and maintenance**

The design and licensing of aircraft is overseen and approved by the FAA. Every aircraft must have at least one airworthiness inspection each calendar year. An FAA licensed aircraft inspector must perform this task. The inspection is done regardless of how many hours that plane was flown in the previous year. At the time of this inspection the inspector reviews the maintenance literature to ensure that if there have been maintenance problems with other planes of that particular make and model, the problems are corrected. All maintenance performed on the engine and airframe is recorded in the aircraft logbooks. Certain problems, if not corrected, can result in the aircraft being grounded until they are resolved and repaired.

### **5) Aircraft insurance**

Almost all pilots and aircraft owners carry some level of insurance. Coverage falls into three basic areas: liability, physical damage to the aircraft and medical. There are policies available for the aircraft owner as well as the renter pilot. If the aircraft is encumbered by a loan, in all probability insurance will be required by the lender. Most aircraft insurance policies are void if the pilot commits an act that violates the Federal Air Regulations. Some policies are void if the pilot engages in activities such as aerial photography, game spotting and dropping objects from the plane. Insurance premium cost is often influenced by the total amount of a pilot's flying experience, experience in the make and model aircraft being insured, recurrent training done on a regular basis and the number of advanced ratings earned by the pilot.

## Aircraft affordability in relationship to other recreational transportation

Pilots are often stereotyped in the popular press as wealthy individuals who are somewhat isolated from the rest of the public. People who fly their own aircraft are no different than others who choose other forms of recreation. Like most forms of transportation, aircraft represent a significant personal investment. However, from the owner's perspective, it is a matter of individual preference of where to spend discretionary income. There are numerous private aircraft whose retail value is less than that of a sports utility vehicle, pickup truck, boat or recreational vehicle.

For example, a typical aircraft used for recreational flying into backcountry airstrips is the Cessna 182. It will carry four people and have performance capabilities that allow it to be flown into most recreational airstrips. Most of these aircraft were manufactured from 1956 to 1994. The average value of a well-maintained early Cessna 182 is about \$60,000. For camping purposes for a family of four consisting of two adults and two children, the aircraft will hold personnel and a reasonable amount of camping gear.

In contrast, two examples are offered using other forms of transportation.

a) Four persons with four riding horses and two packhorses.

- 4 riding horses	\$ 6,000
- 2 pack horses or mules	3,000
- saddles and other tack	2,500
- one six horse trailer	20,000
- one ton 4x4 pickup truck	<u>35,000</u>
	\$66,500

b) Four persons with ATVs

- 4 ATVs	\$25,000
- trailer	5,000
-one ¾ ton 4x4 crew cab pickup	30,000
-all weather riding gear	<u>1,000</u>
	\$61,000

Examples "a" and "b" include equipment that has a rapid rate of depreciation and substantial overhead costs. For those individuals who ride ATVs in the summer and also ride snowmobiles in the winter, their capital investment in recreational machines is effectively doubled. It should also be noted that the Cessna 182 example provided here is "middle of the road" with respect to costs. Entry level aircraft such as a Cessna 150 or 172 can be acquired and operated for well under half this amount.

There are a substantial number of pilots and aircraft owners in the United States. Statistics compiled by the Aircraft Owners and Pilots Association show that in 2009 there were 651,551 licensed pilots and they operated 236,235 aircraft. However, these numbers appear to be stable at this time.

Just as horseback riding or off-road vehicle use is often a family activity, passing from one generation to the next, many people who are flying today grew up in aviation families and have had planes since they were young, often inheriting them and keeping up the traditions. Thus, aviation is a broad based activity with firm roots in the middle-class.

There is another group of noteworthy aircraft owners, the airplane builders. These people build their aircraft from either a kit or from a set of plans. They often spend years on the project, turning out an airworthy, federally inspected plane, many of which are suitable for use on backcountry recreational airstrips. The largest single contribution to the final product is their labor.

## **Aircraft noise: people and wildlife**

Self-propelled aircraft (i.e., fixed-wing propeller planes, jets, and helicopters) will always produce noise as they fly over the landscape. Aircraft over-flying an area may be there for many different reasons. Aircraft are used in forestry and fire management, game management, search and rescue, and for traveling to a specific destination. Recreational aircraft are used for scenic flying and to provide access to remote places. The Federal Aviation Regulations (FAR 91.119) state that a pilot should fly at such an altitude above the ground that a successful landing could be made if the engine fails. However, this is not always feasible due to the extent of the unsuitable terrain for a successful forced landing, weather conditions, or during take-off and landing.

Most recreational aircraft generate noise from two sources: the engine and the propeller. Aircraft must have fully functioning mufflers that not only reduce noise, but also provide cabin heat and heat for the engine carburetor. The mandatory annual inspection of the aircraft by an FAA licensed inspector includes pressure checking the muffler. No other motorized vehicles, especially for recreation purposes, have as extensive an annual inspection process as that of aircraft. Indeed, only a few states require annual vehicle inspections, which may or may not include a muffler check. The propeller makes most of its noise on takeoff when full power is applied. After liftoff and obstacles are cleared, engine power and RPM are reduced and the sound signature is lessened considerably.

### **1) Noise and people**

While it is fairly easy to quantify noise and the science associated with noise volume and distances traveled is well developed, it is difficult to quantify people's reactions to different levels of noise. Some people are perfectly content to have occasional noise disturbance in their environment, while others are totally intolerant of any noise level created by others. The noise of a passing aircraft is usually of short duration, unlike that produced by other forms of motorized recreation. There have been numerous studies on the effect of aircraft noise on people. Two are summarized below.

*a) A study by the U.S. Forest Service entitled "Potential Impacts of Aircraft Over-flights of National Forest Service System Wilderness," which was mandated by the National Parks Over-flights Act of 1987 (P.L. 100-91), found little impact of aircraft over-flights on a visitor's experience. The study reported that: "aircraft noise intrusions did not appreciably impair surveyed wilderness users' overall enjoyment of their visits to a wilderness nor reduce their reported likelihood of repeat visits." The report further suggested that non-wilderness visitor expectations are generally not as great as for those individuals visiting a designated wilderness. Therefore, infrequent occurrence of noise from small aircraft is believed to not substantially diminish the enjoyment of non-wilderness areas by either visitors or residents.*

*b) Theodore J. Schultz, in his paper "Synthesis of Social Surveys on Noise Annoyance" (J. Acoust. Soc. Am. 64(2), Aug. 1978), stated ... "a person's attitude toward the source of noise appears to affect whether or not he expresses annoyance and the amount of his annoyance." He goes on to state ... "It has even been suggested that noise exposure itself is one of the least important determinants of people's propensity for noise annoyance; that one can more accurately predict whether an individual will be annoyed by noise from a study of his personal traits (fear, hostility, etc.) rather than by measurement of the noise to which he is exposed."*

In 2006 the RAF initiated two Freedom of Information Act (FOIA) requests in regard to aircraft noise complaints from the public.

The first request was to the four U.S. National Forests that encompass the Frank Church River of No Return Wilderness in Idaho. The question posed in the FOIA was: “have there been from 1995 thru 2005 any public complaints of record in regard to aircraft noise in the vicinity of public airstrips and vehicle accessible campgrounds that serve as trail heads at the boundary of the wilderness?” According to the response from the U.S. Forest Service Region 4 office in Ogden, Utah, there were no aircraft noise complaints of record for that 10-year time period.

The second FOIA request was made to Glacier National Park in regard to aircraft noise complaints over a similar time period. There were a total of seventy-five complaints of record. Sixty-two of these complaints were solely in regard to helicopters either providing scenic flights or flights for park management purposes. The remaining thirteen fixed wing reports were mostly about aircraft involved in government-sponsored wildlife surveys. Only two of the thirteen fixed wing reports involved low flying aircraft, and those occurred over the west boundary of the Park near roads. It was not verified that the aircraft were flying below those stipulated in FAA regulations. Also, this area is in Flathead County, Montana, one of the most populated and fastest growing areas of Montana. It should be noted that Glacier National Park receives over 1 million visitors each year; many times more visitors per year than the Frank Church Wilderness.

Another source of aircraft noise is military training aircraft. It is not uncommon around military bases or Military Operation Areas (MOAs) to have a constant background drone of jet aircraft over sparsely settled areas. For example, almost the entire Upper Missouri River Breaks National Monument in Montana is under a MOA. This MOA is usually active five days a week for up to four hours each day. The occasional noise of a small, propeller driven aircraft is minor in comparison to this low-altitude jet traffic.

## **2) Noise and wildlife**

Numerous research projects have been conducted in this field, mostly in regard to military activities. It is important to note that the species of most concern in an airstrip area are large ungulates and raptors.

Some of the more notable studies included:

*a) Weisenberger, et al (1996) (Journal of Wildlife Management 60:52-61) found that the heart rates of captive mountain sheep and desert mule deer were elevated for less than three minutes following jet aircraft over-flight. The duration of elevated heart rates was dependent on the noise level, which ranged from 92-112 decibels. This study involved military aircraft and noise levels that are significantly greater than that generated by a typical general aviation aircraft. In addition to the physiological responses, the animals' behavior was altered, but returned to pre-disturbance activities within less than four minutes after noise exposure. Further, all animal responses decreased with increased exposure, suggesting that they habituated to sounds and noise levels of even low-level jet aircraft.*

*b) Lutz and Smith (1976) (Journal of the Acoustical Society of America, Vol. 59, No. 6) found that at an altitude of 400 feet and a slant range of 3000 feet, a passing helicopter caused no observable reaction to pronghorn antelope and the animals continued to graze. They also state that as of this date, no one has conclusively demonstrated a drop in population levels of any wild species due to noise as a single factor.*

*c) MacArthur, et al (1982) (Journal of Wildlife Management 46(2): 351-358) found that Mountain Sheep showed no reaction to helicopters or fixed-wing aircraft that were greater than 400 meters distant. Research was conducted using heart rate telemetry and visual cues.*

*d) Ellis, et al (1991) found that low level over-flights over nesting raptors caused no permanent nest abandonment or reduction in reproductive success. Typically, birds quickly resumed normal activities within a few seconds following an over-flight.*

It is also important to note that tribal, state and federal government agencies charged with protecting wildlife safety continue to use aircraft as a survey, inventory and management tool with no apparent adverse effects on the animals they are charged with managing.

Wildlife is commonly observed at many of the remote landing strips previously described. Studies show that wildlife often respond to perceived disturbances by shifting habitat use. It seems likely that if these animals were annoyed or frightened by airplane traffic, they would vacate the area. However, it is our experience that this has not been the case and that wildlife quickly learn that airplanes are not a direct threat. Many recreational pilots report that large ungulates such as elk and moose in the vicinity of the landing strip rarely even look up or otherwise interrupt their normal activity when aircraft land and depart. As an example, the approach into and departure from Idaho's Fish Lake airstrip (located within the Selway/Bitterroot Wilderness) is over the water where there are often moose feeding in the nearby wetland. Their feeding goes on uninterrupted (C. Jarecki, personal observation).

### **Flight altitudes and airspace**

In general, the Federal Aviation Administration (FAA), as the governing agency over the Nation's airspace, sets the rules for flight altitudes over the entire country. There are some exceptions, mostly involving National security.

The minimum safe operating altitudes for general aviation fixed wing aircraft is covered under FAA regulation 91.119 and is quoted below.

#### ***MINIMUM SAFE ALTITUDES: GENERAL***

*Except when necessary for takeoff or landing, no person may operate an aircraft below the following altitudes:*

*a) ANYWHERE. An altitude allowing, if a power unit fails, an emergency landing without undue hazard to persons or property on the surface.*

*b) OVER CONGESTED AREAS. Over any congested area of a city, town or settlement, or over any open air assembly of persons, an altitude of 1,000 feet above the highest obstacle within a horizontal radius of 2000 feet of the aircraft.*

*c) OVER OTHER THAN CONGESTED AREAS. An altitude of 500 feet above the surface, except over open water or sparsely populated areas. In those cases, the aircraft may not be operated closer than 500 feet to any person, vessel, vehicle or structure.*

### **Flights over certain federal lands**

All Visual Flight Rules (VFR) Aeronautical Charts, which VFR pilots are required to have for their intended flight, have a reference to regulations pertaining to landing and over-flights of certain areas. The following information is printed on each chart:

#### *REGULATIONS REGARDING FLIGHTS OVER CHARTED NATIONAL PARK SERVICE AREAS, U.S. FISH AND WILDLIFE SERVICE AREAS AND U.S. FOREST SERVICE AREAS.*

*The landing of aircraft is prohibited on lands or waters administered by the National Park Service, U.S. Fish and Wildlife Service, or U.S. Forest Service without authorization from the respective agency. Exceptions include: 1) when forced to land due to an emergency beyond the control of the operator, 2) at officially designated landing sites, or 3) on approved official business of the Federal Government.*

*All aircraft are **requested** to maintain a minimum altitude of 2000 feet above the surface of the following: National Parks, Monuments, Seashores, Lakeshores, recreation Areas and Scenic Riverways administered by the National Park Service; National Wildlife Refuges, Big Game Refuges, Game Ranges and Wildlife Ranges administered by the U.S. Fish and Wildlife Service; and Wilderness and Primitive areas administered by the U.S. Forest Service. FAA Advisory Circular (AC) 91-36C, "Visual Flight Rules (VFR) Flight Near Noise-Sensitive Areas," defines the surface as: the highest terrain within 2,000 feet laterally of the route of flight, or the uppermost rim of a canyon or valley.*

Pilots generally adhere to this "request" unless conditions for a safe flight require a lower flight altitude such as a low cloud ceiling, reduced visibility, the inability of the aircraft to attain the desired altitude, and the arrival and departure from airports. Indeed, as these areas generally encompass rugged terrain with relatively few options for a safe forced landing, pilots tend to select high altitudes when transiting these areas because of safety considerations. The boundaries of National Park Service areas, U.S. Fish and Wildlife Service areas and U.S. Forest Service Wilderness and Primitive areas are depicted on the VFR Aeronautical Charts.

Bureau of Land Management administered lands generally do not fall under the above landing restrictions or any minimum over-flight altitude requests. Exceptions would be BLM administered National Monuments in Montana and Utah where landing restrictions apply.

## **Minimum weather conditions for various classes of airspace**

FAA regulation 91.155 covers minimum weather conditions for legal visual flight in various classes of airspace. The lower elevation airspace over most of the sparsely settled areas of public lands is “Class G”, uncontrolled airspace.

Basically, a pilot can legally fly over most remote public lands areas during the day with a forward minimum visibility of one mile and remain clear of the clouds.

## **Agency liability**

Aviation is just one of many forms of transportation and recreation practiced on public lands, and any liability issues associated with aviation are the same as those associated with these other activities. Throughout the public lands of the country there are recreational users of all ages that are unlicensed drivers of ATVs, motorbikes and snowmobiles traveling the transportation system or going off road. Every year there are snowmobilers caught in avalanches, skiers hitting trees and vehicle drivers going over cliffs. In addition, there are rifle and bow hunters killed or injured during hunting season. White water rafters drown or are injured while testing their mettle against a river’s rapids. All these activities would appear to present risks that the public lands agencies must consider.

Aviation should not be singled out as presenting a special or heightened risk or public safety concern. Pilots are the most highly trained of all user groups, and by law must receive periodic evaluation. To single out pilots and aviation for special requirements is not based on any understanding of research into aviation or the liability risks and requirements of the federal government. In addition, as mentioned earlier, airstrips can provide vital emergency access.

Located in Appendix B is a study of State and Federal Statutes as well as case law that directly addresses liability. Although this is more specific to Montana than other states, the general application is germane to other states. The law does not prevent anyone from bringing forth a lawsuit. However, it does give a benchmark for whether a person is likely to prevail in the suit given the attitude towards public recreation, access and just plain common sense.

In April, 2007, the RAF made FOIA requests to the various state BLM offices and regional Forest Service offices in the western states, plus Death Valley National Park in California. A sample letter is found in Appendix C. The request asked for documentation that would show if the agency has ever been a defendant in a legal action in state or federal courts following an accident involving a private, non-commercial aircraft landing or taking off from a public airstrip under that agency’s jurisdiction. In the case of the BLM, the request applied to both on or off airport incidents on their administered lands. The FOIA also requested any documents that indicated how the legal action was resolved.

Based on the responses received, there are no records showing that any of the agencies contacted have ever been involved in litigation following an aircraft accident involving a private, non-commercial aircraft. A typical response reads: “*A search of records pursuant to your FOIA request has resulted in no agency records responsive to your FOIA request*”. Therefore, it

appears that any fears by agency land managers in regard to the possibility of a lawsuit following a non-commercial aircraft accident are unfounded. If requested, the RAF can provide the letters of response from the various agency offices.

### **Agreements with federal land agencies for airstrip management and maintenance**

Several state agencies and organizations have airstrip management agreements with federal land agencies. Several examples are listed below:

#### **California**

The Recreational Aviation Foundation has an airport maintenance agreement with Death Valley National Park for the three public airports that are located within the Park boundaries on National Park Service lands.

#### **Idaho**

Idaho Aeronautics Division has special use permits for seventeen airstrips located on U.S. Forest Service and BLM lands. They are listed below:

<u>Airstrip Name</u>	<u>Federal Agency</u>
Atlanta	USFS
Bear Trap	BLM
Big Creek	USFS
Big Southern Butte	BLM
Bruce Meadows	USFS
Copper Basin	USFS
Cox's Well	BLM
Grasmere	BLM
Hollow Top	BLM
Johnson Creek	USFS
Laidlaw Corrals	BLM
Magee	USFS
May	BLM
Murphy Hot Springs	BLM
Pine	USFS
Twin Bridges	BLM/USFS
Warm Springs	USFS

#### **Montana**

The Montana Aeronautics Division and Montana Pilots' Association together have a volunteer agreement with the Spotted Bear Ranger District, Flathead National Forest, USDA, for the annual maintenance of three U.S. Forest Service airstrips that are open to the public: Spotted Bear, Meadow Creek and Schafer Meadows.

## Utah

Red Tail Aviation, Price, Utah, has Title V Rights-of-Way for five airstrips situated on Bureau of Land Management lands in the state of Utah. The airstrips are: Hidden Splendor, Mineral Canyon, Fry Canyon, Hite, and Sand Wash.

The Utah Backcountry Pilots Association leases 122 acres of Utah State Trust Lands containing the Happy Canyon airstrip.

## Washington

The Washington State Aviation Division has the following conditional use agreements:

<u>Airstrip Name</u>	<u>Federal Agency</u>
Little Goose	Army Corps of Engineers
Lower Monumental	Army Corps of Engineers
Lower Granite	Army Corps of Engineers
Ranger Creek	USDA Forest Service
Rogersburg	Bureau of Land Management
Stehekin	National Park Service
Sullivan Lake	USDA Forest Service

## Wyoming

The Jackson Airport is situated within Grand Teton National Park on National Park Service lands. The Park Service leases the site back to a local airport committee. There is one paved runway that serves planes ranging in size from small, personal aircraft like Pipers and Cessnas to large commercial air carriers like Boeing 737s. The latest data available in 2003 shows 162 arrivals and departures taking place daily at the Jackson Airport.

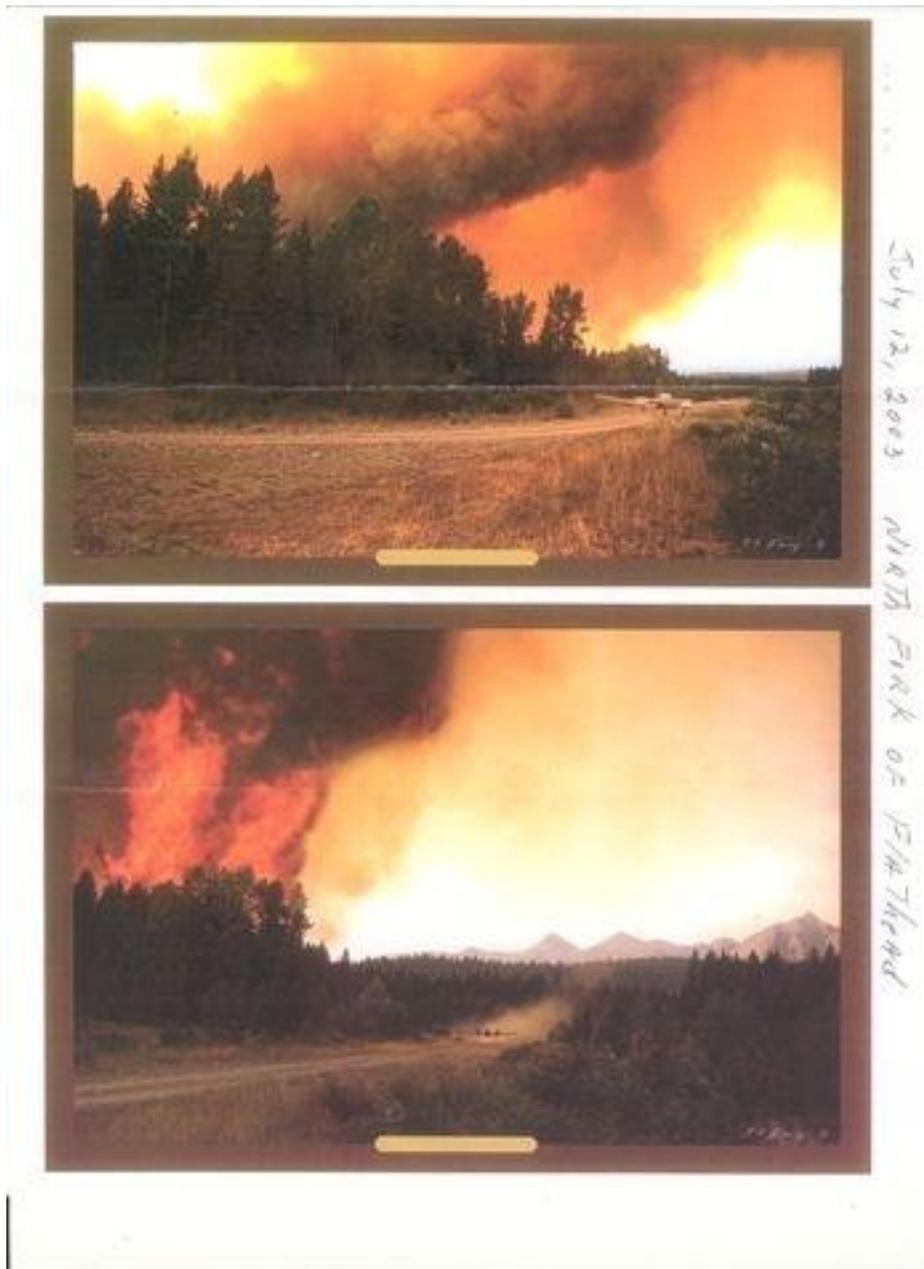
## Summary conclusion

The preservation and enhancement of recreational aviation resources on both public and private land is an important component of a comprehensive transportation and access plan. The non-commercial use of private aircraft for the purpose of recreational access to public lands poses minimal effect on the environment. Aviation is the most highly regulated form of recreation related transportation. Pilots are immersed in a strong safety culture throughout their flying careers. Close Federal oversight that holds individual pilots and aircraft owners accountable for unsafe actions is unprecedented with any other recreation users of public lands. The management of backcountry airstrips for recreational purposes should receive a rational and balanced evaluation by land managers. Pilots and their organizations are available to provide technical aviation information to help land managers make decisions which are in compliance with state and federal environmental laws. Decisions should be based on accurate information and serve to preserve and enhance the natural resources land managers are charged to protect as well as serve the needs of the recreation public.

# Appendix A

	<b>Tracking #:</b> FS-03-0459 <b>Date Submitted:</b>
<b>EVENT</b> <b>Date:</b> 7/24/2003 <b>Local Time:</b> 1120 <b>Injuries:</b> No <b>Damage:</b> No <b>Location:</b> Wurtz Airstrip <b>State:</b> Montana <b>Operational Control:</b> Forest Service (USFS) > Region 01 Northern Rockies Region	
<b>MISSION</b> <b>Type:</b> Fire, Air Attack <b>Other:</b> Fire, Air-Attack <b>Procurement:</b> CWN (Call when needed) <b>Other:</b> CWN <b>Persons Onboard:</b> 3 <b>Special Use:</b> Yes <b>Hazardous Materials:</b> No <b>Departure Point:</b> FCA-Glacier Inter. <b>Destination:</b> Wedge Canyon Fire	
<b>AIRCRAFT</b> <b>Manufacturer:</b> Piper <b>Model:</b> PA34	
<b>NARRATIVE</b> <p>We launched from FCA on 7/24/03 @0926 for a 3 hour mission as Air Tactical Group Supervisor on the Wedge Canyon Incident. Front seat with pilot was an air attack trainee (ATGS(T)) with fully qualified air attack in the back. Operation followed standard operational checks. At 1115 the left engine started running rough and we lost all engine power within two minutes. While trying to determine why we lost one engine the pilot discovered we were out of fuel. Our first intention was to try and return to FCA with one engine out. I had pinpointed several airstrips along the North Fork road previously from locating areas for a portable retardant plant. Directly below us we located Wurtz airstrip, a closed airstrip on Forest Service ground. The pilot executed a slow left bank turn while descending to the airstrip and we landed without incident at 1125. Pilot is currently refueling the remote aircraft to bring it back to FCA for inspection. The previous evening the pilot had requested that the aircraft be fueled by first thing in the morning. The pilot had arrived early this morning and cleaned all windows, leading edge of all wings, and pre-flighted the aircraft. With the aircraft sitting on the strip the fuel tanks still registered full. The FBO did not refuel the aircraft as thought, and the desk receptionist informed him that the receipt from fueling was still in the truck and he could get it later.</p>	
<b>CORRECTIVE ACTION</b> <p>This event is currently under investigation as an Incident with Potential. A report is in preparation. Investigation Follow-up: At approximately 11:15 hours on July 24, 2003, a Piper Seneca III flying an Air Attack Mission over the Wedge Canyon Fire began to lose power on one engine. During the trouble-shooting of the rough-running engine, the pilot realized his fuel gauges were showing empty. The pilot was able to make a successful forced landing into a back-country airstrip without damage to the aircraft. An interview with the pilot on the morning of July 25, 2003 revealed the following information: -the pilot asked the local FBO to "top off the tanks" on the evening of July 23, 2003. -the pilot was told by an employee of the FBO that the aircraft had been fueled on July 24, 2003. -the pilot believed the tanks were full but did not visually check the fuel in the tanks. -approximately 2 hours into the mission, when the engine began to lose power, the pilot noticed for the first time that his fuel gauges showed "empty". -the forced landing was successful to the back-country airstrip with no damage or injury. RASM COMMENTS: Pilot card was suspended and operator's contract placed on suspension pending an aviation safety plan. 9/10/03 operators safety plan was accepted by R8 Aviation and Contracting. Operator contractor returned to active status. No further action required.</p>	

**U.S. Forest Service fire contract aircraft taking off after refueling following running out of gas while on fire patrol**



**Takeoff from Wurtz Airstrip after refueling the plane**

**July 12, 2003**

# APPENDIX B

## Legal Opinion Concerning the Liability of Landing Airplanes on Public Lands for Recreational Purposes

### THE LEGALITY AND LIABILITY ISSUES OF LANDING ON PUBLIC LAND AND PUBLIC AIRSTRIPS

#### LEGALITY OF LANDING ON OFF-AIRPORT LOCATIONS

The following is taken directly from the NOAA Airport/Facility Directory:

##### AIRCRAFT LANDING RESTRICTIONS

*Landing of aircraft at locations other than public use airports may be a violation of Federal or local law. All land and water areas are owned and controlled by private individuals or organizations, states, cities, local governments, or U.S. Government agencies. Except in emergency, prior permission should be obtained before landing at any location that is not a designated public use airport or seaplane base. (This does not apply to most BLM lands.)*

#### Legal Opinion Concerning the Liability of Landing Airplanes On Public Lands for Recreational Purposes

##### CLASSIFICATION OF ENTRANTS AND DUTIES OF CARE

Historically, the duty owed by landowners to those who enter upon their land was determined by the status of the entrant, whether a trespasser, licensee, or invitee. Because the duty owed to each category of entrant was different, (4) in order to determine the duty a landowner owed an entrant, it was critical to first determine the status of the entrant. (5) At times difficult, this chore became less burdensome following the Montana Supreme Court's decision in *Limberhand v. Big Ditch Co.* (6)

(1) A trespasser is a person who enters or remains upon land in the possession of another without a privilege to do so, created by the possessor's consent or otherwise. Restatement of Torts (Second), Section 329 (1965).

(2) A licensee is a person who is privileged to enter or remain on land only by virtue of the possessor's consent. Restatement of Torts (Second), Section 330 (1965).

(3) An invitee is either a person who is invited to enter or remain on land as a member of the public for a purpose for which the land is held open to the public (public invitee); or a person who is invited to enter or remain on land for a purpose directly or indirectly connected with business dealings

with the possessor of the land (business visitor). To be classified as an invitee, it is not enough to hold land open to the public; there must be some inducement or encouragement to enter, some conduct indicating that the premises are provided and intended for public entry and use, and that the public will not merely be tolerated, but is expected and desired to come. Restatement of Torts (Second), Section 332, pp. 178-179 (1965).

(4) Under the common law rules, a landowner owes licensees and trespassers a duty to merely avoid willful, wanton, or intentional conduct, but owes invitees a duty of ordinary care.

(5) The easiest way to illustrate the difference between an invitee or a licensee is by example: When a landowner tacitly permits the boys of a town to play ball on his vacant lot the boys are licensees only; but if the landowner installs playground equipment and posts a sign saying that the lot is open free to all children, there is then a public invitation, and those who enter in response to that invitation are invitees. Restatement of Torts (Second), Section 332, p. 179 (1965).

(6) 706 P.2d 491 (1985).

In *Limberhand*, the court reaffirmed its 1981, decision in *Corrigan v. Janney* that a landowner owes a single duty of ordinary care to all entrants, regardless of their status. Pursuant to statute, therefore, a landowner is liable for injuries caused by a failure to exercise reasonable care under the circumstances, a duty formerly owed only to invitees.

Without taking into account the statutory ramifications of Montana's recreational use law, a pilot flying onto government land would, in all likelihood, be considered a licensee (provided that the land is not marked 'No Trespassing' and/or the government does not issue an outright ban to the land's use.)

(7) 636 P.2d 838 (1981).

(8) 706 P.2d at 496.

(9) MONT. CODE, ANN. Section 27-1-701. "Everyone is responsible not only for the result of his willful acts but also for an injury occasioned to another by his want of ordinary care or skill in the management of his property or person except so far as the latter has willfully or by want of ordinary care brought the injury upon himself."

(10) This duty, however, does not apply in cases falling under Montana's recreational use act. In cases where a landowner gratuitously makes his land and/or water available to the public for recreational use, by statute the only duty of care a landowner owes to those recreational users is to refrain from willfully or wantonly injuring the entrant. MONT. CODE, ANN. Sections 70-16-301, 70-6-302 (1995).

#### **FEDERAL GOVERNMENT'S LIABILITY FOR INJURIES TO PRIVATE CITIZENS WHILE ON FEDERAL LAND LOCATED IN MONTANA**

##### INTRODUCTION

Because there is an ever-decreasing amount of undeveloped land to explore and enjoy and because much of the as-yet-undeveloped land is privately owned, over the last thirty years an increasing number of states have passed

legislation designed to encourage landowners to open use of their lands and water to the public by shielding the landowners from liability for injuries to recreational users of the land. Commonly known as recreational use statutes, all fifty states now have some version of these statutes. Although recreational use statutes were originally designed to encourage private landowners to open use of their lands to the public, the shield provided by these statutes has also been used by the Federal government to protect itself from liability for injuries occurring to recreational users of federal lands open to the public. As a result, any claim brought against the United States by a person injured while engaging in recreational activity on federal land is, as a general rule, barred by the recreational use statute of the state in which the injury occurred.

(1) W. PROSSER AND W. PAGE KEATON, PROSSER AND KEATON ON TORTS SECTION 60 PP. 415-416 (5<sup>TH</sup> ED. 1984).

(2) W. PROSSER AND W. PAGE KEATON. PROSSER AND KEATON ON TORTS Section 60, p. 415, (5th ed. 1984).

(3) See *Proud v. United States*, 723 F.2d 705 (9th Cir.) cert. denied 467 U.S. 1252 (1984); *Simpson v. United States*, 652 F.2d 831 (9th Cir. 1981); *Jones v. United States*, 693 F.2d 1299 (9<sup>TH</sup> Cir. 1982);

(4) See *O'Neal v. United States*, 814 F.2d 1285 (9th Cir. 1987), *McClain v. United States*, 445 F.Supp. 770 (D. Or. 1978); *Dorman v. United States*, 812 F.Supp 685 (S.D.Miss. 1993); *But cf. Seyler v. United States*, 832 F.2d 120 (9th Cir. 1987) (holding that Idaho's recreational use statute did not bar an action brought by a motorcyclist injured on a government maintained highway because application of recreational use statute to ordinary streets or highways would ignore purpose of statute and application of the statute to "any road or highway in Idaho ... Is clearly absurd."). In Montana, the question of whether an injured party can recover against the United States for injuries suffered while engaging in a recreational activity on federal land was most recently answered - in the negative - in the case of *Fisher v. United States*. (5)

## II FEDERAL TORT CLAIMS ACT

The Federal Tort Claims Act authorizes suits against the United States for damages for injury or loss of property, or personal injury or death If caused by the negligent or wrongful act or omission of any employee of the government while acting within the scope of his office or employment, under circumstances where the United States, if a private person, would be liable to the claimant in accordance with the law of the place where the act or omission occurred. The Tort Claims Act also provides that the United States shall be liable for tort claims in the same manner and to the same extent as a private individual under like circumstances. Thus, the test established by the Tort Claims Act for determining the United States' liability for the negligent acts or omissions of its employees is whether a private person would be responsible for similar negligence under the laws of the State where the acts occurred.

(5) 534 F.Supp. 514 (D. Mont. 1982). *Fisher v. United States* was decided prior to the 1987 and 1995 amendments to Section 70-16-302. In pertinent part, the pre-amendment version of Section 70-16-302 provided: "A landowner or tenant who permits ... any person to enter upon any property in the possession or under the control of such landowner ... for any recreational purpose... does not ... extend any assurance that such property is safe for

any purpose or confer upon such a person the status of invites or license to whom any duty of care is owed..."

(6) 28 U.S.C. Section 1346(b).

(7) 28 U.S.C. Section 2674 (1948).

(8) *Rayonier Inc. v. United States*, 352 U.S. 315, 319, 77 S.Ct. 374, 376, 1 L.Ed.2d 354 (1957). See also, *Richards v. United States*, 369 U.S. 1, 6-8. 82 S.Ct. 585, 589-590, 7 L.Ed.2d 492 (1962).

### III. MONTANA'S RECREATIONAL USE STATUTE

Because Montana is uniquely endowed with scenic landscapes and areas rich in recreational value, (9) Montana's recreational use statute (10) was enacted to encourage landowners to make their lands freely available to the public by limiting the landowners' tort liability. (11) In Montana, a person who uses property for recreational purposes is owed no duty of care by the landowner with respect to the condition of the property, except that the landowner is liable to the person for any injury to person or property for an act or omission that constitutes willful or wanton misconduct. (12) This restriction on a landowner's liability applies to both private and governmental agency landowners; (13) is applicable regardless of whether the landowner has or has not given his permission to use the property; (14) and applies to land, roads, water, watercourses, private ways, and any improvements, buildings, structures, machinery, and equipment on the property (15)

(9) MONT. CODE ANN. Section 23-2-101 (19xx).

(10) MONT. CODE ANN. Sections 70-16-301, 70-16-302 (1995)

(11) *Fisher v. United States*, 534 F.Supp. 514 (D. Mont. 1982); See also *Jones v. United States*, 693 F.2d 1299 (9th Cir. 1982) ("The purpose of [Washington's Recreational Land Use Act] is to encourage owners or others in lawful possession and control of land and water areas or channels to make them available to the public for recreational purposes by limiting their liability toward persons entering thereon and toward persons who may be injured or otherwise damaged by the acts or omissions of person entering thereon.").

(12) MONT. CODE ANN. Section 70-16-302(i) (1995).

(13) MONT. CODE ANN. Section 70-16-302(2) (1995).

(14) MONT. CODE ANN. Section 70-16-302(1) (1995).

(15) MONT. CODE ANN. Section 70-16-302(1)-(3) (1995).

#### A. "Recreational Purposes"

"Recreational purposes", as used in Montana's recreational use statute, includes hunting, fishing, swimming, boating, water skiing, camping, picnicking, pleasure driving, biking, winter sports, hiking, touring or viewing cultural and historical sites and monuments, spelunking, non-commercial aviation activities or other pleasure expeditions. (16) The statute is applicable in any case where entry onto land is made for what could reasonably be regarded by the general public as a recreational

purpose, regardless of some different purpose in the mind of a particular user. (17)

Therefore, even if an entrant is injured while engaged in an outdoor activity not expressly mentioned in the statute, a court would likely conclude that recovery is barred if the activity is similar to those described in the statute. (18) For example, one court has held that both snowmobiling and diving are within a statute governing "fishing, hunting, trapping, camping, hiking, sightseeing, or other similar outdoor recreational use," because these activities are widely recognized as sports, involve some degree of physical exertion, and usually require open spaces. (19)

(16) MONT. CODE ANN. Section 70-16-301 (1995).

(17) *Fisher v. United States*, 534 F.Supp. 514 (D. Mont. 1982) (holding that a school field trip to a wildlife refuge, a trip which included a planned lunch period, was for a 'recreational purpose' because '[a]t the time of the accident the decedent was doing the things which are done on a children's picnic...' and "[a] visit to ... a wildlife refuge may be educational, recreational, vocational, or some combination of all three.").

(18) See generally, John C. Barrett, *Good Sports and Bad Lands: The Application of Washington's Recreational Use Statute Limiting Landowner Liability*, 53 WASH. L. REV. 1, 20 (1977).

(19) *Id. But see, Villanova v. American Federation of Musicians*, 301 A.2d 469 (N.J. Super. 1973), *cert. denied*, 308 A.2d 669 (1973) (holding that defendant was not entitled to protection of New Jersey's recreational use law when injured plaintiff was a member of a band involved in a free outdoor park concert.).

#### B. "Willful and Wanton Misconduct"

The term "willfully", when applied to the intent with which an act is done or omitted, denotes a purpose of willingness to commit the act or make the omission referred to; it does not require any intent to violate the law, to injure another, or to acquire any advantage. (20) Willful and wanton conduct tends to take on the aspect of highly unreasonable conduct, involving an extreme departure from ordinary care, in a situation where a high degree of danger is apparent, (21) and lies between intent to do harm and the mere unreasonable risk of harm to another (i.e. ordinary negligence). (22)

(20) MONT. CODE ANN. Section 1-1-204(5) (1977). See, Restatement of Torts (Second), Section 500 (1965) (defining "conduct...in reckless disregard of the safety of another" as conduct in which an actor does an act or intentionally fails to do an act which it is his duty to the other to do, knowing or having reason to know of facts which would lead a reasonable man to realize, not only that his conduct creates an unreasonable risk of physical harm to another, but also that such risk is substantially greater than that which is necessary to make his conduct negligent," and then likening "reckless disregard" with "wanton or willful misconduct." See also, *Boadle v. United States*, 472 F.2d 1014 (9th Cir. 1973) (utilizing the Restatement of Torts (Second) to define "invitee.").

(21) W. PROSSER AND W. PAGE KEATON, PROSSER AND KEATON ON TORTS Section 34, p. 214, (5th ed. 1984); See *Jones v. United States*, 693 F.2d 1299 (9th Cir.

1982) (quoting from the Washington Pattern Instruction, "willful misconduct" is the "intentional doing of an act ... or the intentional failure to do an act which one has the duty to do when he or she has actual knowledge of the peril that will be created and intentionally fails to avert the injury"; "wanton misconduct" is the "intentional doing of an act which one has a duty to refrain from doing or the intentional failure to do an act which one has the duty to do, in reckless disregard of the consequences and under such surrounding circumstances and conditions that a reasonable person would know or should know that such conduct would in a high degree of probability result in substantial harm to another." In *Jones*, the parties and the court agreed that if Washington's Recreational Use Statute was applicable, the Government's liability would be measured under Washington's common law definitions of willful and wanton misconduct.).

(22) W. PROSSER AND W. PAGE KEATON, *PROSSER AND KEATON ON TORTS* Section 34, p. 212, (5th ed. 1984); See generally *Derenberger v. Lutey*, 674 P.2d 485 (Mont. 1983), citing *Adkisson v. City of Seattle*, 258 P.2d 461 (Wash. 1953) (quoting the Washington Supreme Court, "Negligence and willfulness imply radically different mental states.

#### IV. APPLICATION OF MONTANA'S RECREATIONAL USE LAWS TO FEDERALLY OWNED PROPERTY IN MONTANA

The applicability of state recreational use statutes to federally owned lands is well established both in Montana (23) and the Ninth Circuit. (24) The maximum liability which the United States can incur, therefore, is precisely equal to that which may be incurred by a private individual in the same circumstances. (25)

In the case of *Fisher v. United States*, the parents of a child who was killed while playing during a school field trip to a federally owned wildlife refuge brought a wrongful death action against the Government under the Federal Tort Claims Act. In their suit, the parents alleged that because the purpose of the field trip was educational and not recreational, Montana's recreational use statute did not apply and, therefore, because their daughter was an invitee of the Government, the Government owed her a duty of care. (26) The district court disagreed with the parents' contentions as to the purpose of the trip and, in accordance with the provisions of. Negligence conveys the idea of neglect or inadvertence, as distinguished from premeditation or formed intention. An act into which knowledge of danger and willfulness enter is not negligence of any degree, but is willful misconduct...").

(23) *Fisher v. United States*, 534 F.Supp. 514 (D. Mont. 1982).

(24) *O'Neal v. United States*, 814 F.2d 1285 (9th Cir. 1987); See *Gard v. United States*, 594 F.2d 1230, 1233 (9th Cir. 1979) cert. denied, 444 U.S. 866, 100 S.Ct. 138, 62 L.Ed.2d 90 (1979) ('The principle of encouraging landowners to open their land by limiting potential tort liability applies with equal force to the Government as to other landowners.');

*Proud v. United States*, 723 F.2d 705 (9th Cir.), cert. denied 467 U.S. 1252 (1984); *Jones v. United States*, 693 F.2d 1299 (9th Cir. 1982); *Simpson v. United States*, 652 F.2d 831 (9th Cir. 1981).

(25) *O'Neal v. United States*, 814 F.2d 1285 (9th Cir. 1987); See also *McClain v. United States*, 445 F.Supp. 770 (D. Oregon 1978) ("In other words, a state may not protect private citizens from liability without also protecting the federal government.").

(26) 534 F.Supp. 514, 515 (D. Mont. 1982).

Montana's recreational use statute, granted summary judgment in favor of the United States. (27)

V. CONCLUSION

As noted supra, the version of Montana's recreational use statute applied in *Fisher* is different than the version in effect today. However, because the intent of Montana's recreational use law remains the same as when it was first enacted, the outcome of *Fisher* - and other suits brought under the Federal Tort Claims Act for injuries suffered while using federal land for recreational purposes - would, in all likelihood, be the same today as it was in 1982.

Therefore, if a person or his property is injured while on federally owned land in Montana, unless the proximate cause of that injury was due to willful and wanton misconduct on the part of the Government, any claim brought by the injured party pursuant to the Federal Tort Claims Act would be barred by Montana's recreational use law.

(27) 534 F.Supp. 514, 515-516 (D. Mont. 1982).

ADDENDUM

RECENT MONTANA SUPREME COURT DECISION: Affirms Montana's Recreational use statute.

DA 06-0188

IN THE SUPREME COURT OF THE STATE OF MONTANA 2007 MT 124

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THE ESTATE OF TIMOTHY A. HILSTON, by MARY ANN HILSTON, Personal Representative,  
and MARY ANN HILSTON, on her own behalf.

Plaintiffs and Appellants, v.  
THE STATE OF MONTANA,  
Defendant and Respondent.

APPEAL FROM: District Court of the Eighth Judicial District,  
In and For the County of Cascade, Cause No. DV-05-1023, Honorable  
Dirk M. Sandefur, Presiding Judge

COUNSEL OF RECORD:  
For Appellants: Robert J. Vermillion, Smith, Walsh, Clarke & Gregoire, PLLP, Great Falls, Montana,  
Floyd D. Corder, Corder & Allen, Great Falls, Montana

For Respondent: Elizabeth S. Baker, Hughes, Kellner, Sullivan & Alke, PLLP, Helena, MT For Amicus Curiae:  
Jack R. Tuholske, Tuholske Law Office, P.C., Missoula, Montana (Montana Wildlife Federation)

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Submitted on Briefs: November 28, 2006  
Decided: May, 2007

Justice Jim Rice delivered the Opinion of the Court.

¶1 Appellant Mary Ann Hilston, personal representative of the estate of Timothy A. Hilston, appeals from the order of the Eighth Judicial District Court, Cascade County, granting summary judgment in favor of the State. We affirm.

¶2 We consider the following issue on appeal:

¶3 Did the District Court err in granting the State’s motion for summary judgment on Mary Ann Hilston’s claim that the State is liable for negligent grizzly management in the State’s Blackfoot-Clearwater Wildlife Management Area because grizzly bears are not a “condition of the property” pursuant to § 70-16-302, MCA?

#### BACKGROUND

¶4 Timothy Hilston (Mr. Hilston) of Great Falls, was hunting elk in the Blackfoot/Clearwater Wildlife Management Area. Mr. Hilston shot an elk, and while he was field dressing the elk, he was attacked by grizzly bears and was killed. After Mr. Hilston was reported missing, a search and rescue team searched the area and found his body the next day. He had died of blood loss from multiple bite wounds.

¶5 An investigation team of both state and federal wildlife investigators was assembled and set traps for the offending bears. The two grizzly bears that attacked Mr. Hilston, a twelve-year-old female and one cub, were captured. Both bears, along with the adult bear’s other cub of the year, were destroyed.

¶6 The Blackfoot-Clearwater Wildlife Management Area, located in the Blackfoot Valley approximately forty-five miles east of Missoula and near the Bob Marshall Wilderness Area, lies on state and private land, and is open to public access free of charge. Mr. Hilston’s attack and subsequent death occurred on state-owned land within the boundaries of Powell County.

¶7 Mr. Hilston’s estate, by and through his personal representative and surviving spouse, Mary Ann Hilston (Hilston), filed a complaint in federal court in September 2004, alleging negligence by the State of Montana and the United States Fish and Wildlife Service in the operation, control, leasing, maintenance, and management of grizzly bears, natural resources, land and people in the Blackfoot-Clearwater Wildlife Management Area. The federal court dismissed the complaint for lack of subject matter jurisdiction, concluding that the actions of the U.S. Fish and Wildlife Service fell within the discretionary function exemption to the Federal Tort Claims Act. The court dismissed the supplemental claim against the State of Montana without prejudice to the Plaintiff’s right to re-file in state court.

¶8 Hilston filed her complaint in state court on September 6, 2005. The State filed a motion for summary judgment, based on a stipulation of facts submitted by the parties. The District Court heard the motion on January 31, 2006, and ruled from the bench that the State was entitled to judgment as a matter of law under the Recreational Use Immunity Act. Hilston appeals.

#### STANDARD OF REVIEW

¶9 We review a district court’s grant of summary judgment de novo. *Casiano v. Greenway*

*Enterprises, Inc.*, 2002 MT 93, ¶ 13, 309 Mont. 358, ¶ 13, 47 P.3d 432, ¶ 13. The party moving for summary judgment must demonstrate that there are no genuine issues of material fact. *Bruner v. Yellowstone County*, 272 Mont. 261, 264, 900 P.2d 901, 903 (1995). Once this is accomplished, the burden then shifts to the non-moving party to prove, by more than mere denial and speculation, that a genuine issue of fact does exist. *Bruner*, 272 Mont. at 264, 900 P.2d at 903. If there is no genuine issue of material fact, this Court reviews the district court's conclusions of law to determine whether its interpretation of the law is correct. *MacKay v. State*, 2003 MT 274, ¶ 14, 317 Mont. 467, ¶ 14, 79 P.3d 236, ¶ 14, cert. denied, 541 U.S. 1041, 124 S. Ct. 2162 (2004).

#### DISCUSSION

¶10 Hilston argues that the District Court erred in granting summary judgment to the State under the Recreational Use Immunity Act (Act). Hilston contends that the Act does not serve to grant immunity to the State of Montana because the 1987 amendments to the Act make it clear that the Act applies only to defects in property. Hilston argues that grizzly management in the Clearwater Management area is not a “condition of the property” for which the Act grants immunity.

¶11 The State argues that the District Court correctly granted summary judgment in its favor. The State asserts the Act provides that landowners do not owe a duty to make their property safe for recreational users who do not pay a fee to access the property, and the State of Montana, like any other property owner, is protected from a claim that it failed to prevent or warn of an attack by an indigenous wild animal on its land. The State contends that Mr. Hilston was “the unfortunate victim of a natural tragedy” and “the law bars recovery for his death.” The State argues that grizzly bears are a “condition of the property” within the meaning of § 70-16-302(1), MCA, and that both the ordinary meaning of the words and their common-law origins support the State's construction of the Act.¶12 Section 70-16-302(1), MCA, provides: A person who uses property, including property owned or leased by a public entity, for recreational purposes, with or without permission, does so without any assurance from the landowner that the property is safe for any purpose if the person does not give a valuable consideration to the landowner in exchange for the recreational use of the property. The landowner owes the person no duty of care with respect to the condition of the property, except that the landowner is liable to the person for any injury to person or property for an act or omission that constitutes willful or wanton misconduct . . . . The purpose of the Act “is to ‘grant a landowner relief from liability to persons gratuitously entering land for recreation purposes.’” *Jobe v. City of Polson*, 2004 MT 183, ¶ 25, 322 Mont. 157, ¶ 25, 94 P.3d 743, ¶ 25 (quoting *Simchuk v. Angel Island Community Ass'n*, 253 Mont. 221, 226, 833 P.2d 158, 161 (1992)). “Hunting” is expressly included within the definition of

“recreational purposes.” Section 70-16-301, MCA. There is no dispute here that Mr. Hilston was using state-owned land for recreational purposes, and that his use of the property was gratuitous. There is no allegation of willful or wanton misconduct by the State.

¶13 This Court has interpreted the landowner protection statute to effectuate its purposes. See *Saari v. Winter Sports, Inc.*, 2003 MT 31, 314 Mont. 212, 64 P.3d 1038 (sledding at closed ski resort covered by Act); *Weinert v. City of Great Falls*, 2004 MT 168, 322 Mont. 38, 97 P.3d 1079 (sledding in city park considered recreational purpose for which city was immune from liability); and *Jobe*. In *Jobe*, the plaintiff was injured after falling through a damaged plank on the Polson city dock, and filed suit against the city for negligently maintaining the premises and for failing to warn of the unsafe condition. The district court granted summary judgment for the city on grounds that the plaintiff failed to present evidence in support of the claim that the city was aware of the defective plank before the accident, or that the city acted willfully or wantonly. The court also concluded that the plaintiff’s negligence claim was precluded by § 70-16-302, MCA. On appeal, this Court concluded that the facts were sufficient to raise a genuine issue as to whether the city’s failure to timely repair the damaged plank or warn the plaintiff of the danger constituted willful or wanton misconduct, precluding summary judgment. However, we agreed that the recreational use statute barred the plaintiff’s negligence claim. *Jobe*, ¶ 26.

¶14 The dispositive issue in this case is whether the statute provides immunity for an attack by an indigenous wild animal on the property. Thus, the pertinent question here is whether wild animals are a “condition of the property” for which a landowner owes no duty of care. The District court determined that:

*[P]ursuant to the common law recognition of . . . wildlife, as a condition of property, and pursuant to the authority of Jobe versus City of Polson case, and Weinert versus City of Great Falls, the Court concludes as a matter of law that wildlife, including grizzly bears, are a condition of the land in regard to and within the meaning of section [70-16-302(1)]. Based upon that authority, the Court more specifically concludes that the bear or bears at issue in this case were a condition of the land within the meaning of that statute.*¶15 Wild animals are known in legal terms as *ferae naturae*—“of a wild nature or disposition.” Black’s Law Dictionary, 635 (7th ed. 1999). Courts continue to recognize the common law distinction between domestic animals, *domitae naturae*, for which the landowner

assumed liability towards third parties, and wild animals, *ferae naturae*, for which the landowner generally assumed no liability. “The rule of law has developed that a landowner cannot be held liable for the acts of animals *ferae naturae*, that is, indigenous wild animals, occurring on his or her property unless the landowner has actually reduced the wild animals to possession or control, or introduced a nonindigenous animal into the area.” *Nicholson v. Smith*, 986 S.W.2d 54, 60 (Tex. App. 1999). See also Restatement of Torts (Second) §§ 507-08; *Palumbo v. State Game and Fresh Water Fish Com’n*, 487 So.2d 352, 353 (Fla. App. 1986) (state not liable for alligator attack in state park).

¶16 The California Court of Appeals expressly held that wild animals “are a natural part of the condition of unimproved public property . . . .” *Arroyo v. State of California*, 40 Cal. Rptr. 2d 627, 631 (Cal. App. 1995). In *Arroyo*, nine-year-old Darron Arroyo was mauled by a mountain lion on a hiking trail in a state park. Arroyo sued the state for failure to warn and breach of statutory duty to eliminate or warn of dangers of mountain lions, for negligence, and for infliction of emotional distress. The relevant immunity statute was the California Tort Claims Act (Gov. Code, § 830 et seq.), § 831.2, which provided, in pertinent part, that “a public entity . . . is [not] liable for an injury caused by a natural condition of any unimproved public property, including but not limited to any natural condition of any lake, stream, bay, river or beach.” The California court held that a wild animal is a “natural condition” under this statute. *Arroyo*, 40 Cal.Rptr.2d at 631.

¶17 We concur with the reasoning of these decisions. Grizzly bears are wild animals existing upon the property, and, as such, are a “condition of the property” for purposes of Montana’s Recreational Use Immunity Act. Thus, the State of Montana owed no duty to protect Mr. Hilston from the grizzly bear attack that led to his unfortunate death, and the District Court correctly granted summary judgment for the State. /S/ JIM

RICE

We concur: /S/ KARLA M. GRAY, /S/ JAMES C. NELSON, /S/ PATRICIA COTTER, /S/ W. WILLIAM LEAPHART

**APPENDIX C**  
**Sample FOIA letter regarding liability**



**Recreational Aviation Foundation**  
28517 Rocky Point Road  
Polson, MT 59860  
[skywagon@centurytel.net](mailto:skywagon@centurytel.net)  
406-883-2248

April 27, 2007

FOIA Coordinator  
Death Valley National Park  
P.O. Box 579  
Death Valley, CA 92328

Dear Sir/Madam:

I am making the following request under the Freedom of Information Act.

The Recreational Aviation Foundation (RAF) is assembling a library on aviation related lawsuits on public lands for the promotion of aviation safety and education. On behalf of the RAF I am requesting documentation that would provide details of the following:

- 1) The RAF requests copies of any documents that indicate the National Park Service has ever been the defendant of a legal action in either California or Federal courts following an accident involving a private, noncommercial aircraft landing or taking off from an airport in Death Valley National Park. The requested information should be considered from the time Death Valley became a National Park.
- 2) The RAF requests copies of any documents that indicate how such legal action may have been settled.

The Recreational Aviation Foundation is an IRS approved public charity. The documents requested will not be used for any commercial purposes, by the news media, educational institution or noncommercial scientific institution. The RAF requests the waiver of fees based on the following:

- (1) Requested records pertain to the operation of the government and are of public record.
- (2) Requested documents are to be used to understand how the government responded to any legal actions taken as outlined above.
- (3) The RAF is a public charity and documents will enhance public understanding of public aviation.
- (4) The contribution is significant since aviation safety is a national concern.
- (5) There is no commercial interest in the requested documents.

Attached are the by-laws of the RAF, background material on the operation and function of the Foundation and current Foundation brochure. Further information may be found on the RAF web site: [www.recreationalaviationfoundation.org](http://www.recreationalaviationfoundation.org).

Please contact me if you require further information.

Sincerely,

Charles M. Jarecki, Director, Recreational Aviation Foundation

**APPENDIX D**  
**Western State Aviation Directors**  
(As of October, 2010)

**Alaska**

Alaska Department of Transportation &  
Public Facilities – Statewide Aviation  
4111 Aviation Ave  
PO Box 196900  
Anchorage AK 99519-6900  
Phone: 907-269-0730  
Fax: 907-269-0489  
[www.dot.state.ak.us](http://www.dot.state.ak.us)

**Arizona**

Arizona Division of Aeronautics  
PO Box 13588  
Phoenix AZ 85002  
(602) 294-9144  
[bdick@azdot.gov](mailto:bdick@azdot.gov)

**California**

California Division of Aeronautics  
PO Box 942874  
Sacramento CA 94274-0001  
(916) 654-49959  
[mary\\_frederick@dot.ca.gov](mailto:mary_frederick@dot.ca.gov)

**Colorado**

Colorado Department of Transportation,  
Division of Aeronautics  
5126 Front Range Parkway  
Watkins, CO 80137  
Phone: 303-261-4418  
Cell: 303-877-1211  
Fax: 303-261-9608  
[www.colorado-aeronautics.org](http://www.colorado-aeronautics.org)

**Idaho**

Idaho Department of Transportation,  
Division of Aeronautics  
3483 Rickenbacker St  
Boise ID 83707-1129  
Phone: 208-334-8775/334.8776  
Fax: 208-334-8789  
[www.state.id.us/itd.aero/aerohome.htm](http://www.state.id.us/itd.aero/aerohome.htm)

**Montana**

Montana Department of Transportation,  
Aeronautics Division  
2630 Airport Rd  
PO Box 200507  
Helena MT 59620-0507  
Phone: 406-444-9569/444-2506  
Fax: 406-444-2519  
[www.mdt.mt.gov/aviation](http://www.mdt.mt.gov/aviation)

**New Mexico**

New Mexico Aviation Division  
PO Box 1149  
Santa Fe NM 87504-1149  
(505) 476-0930  
[thomas.baca@state.nm.us](mailto:thomas.baca@state.nm.us)

**Nevada**

Nevada Dept of Transportation  
1263 South Stewart Street  
Carson City NV 89712  
(775) 888-7002  
[kcooper@dot.state.nv.us](mailto:kcooper@dot.state.nv.us)

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**Oregon**

Oregon Department of Aviation  
3040 25<sup>th</sup> Street, SE  
Salem OR 97302-1125  
Phone: 503-378-4880  
Fax: 503-373-1688  
[www.oregon.gov/Aviation](http://www.oregon.gov/Aviation)

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**Utah**

Utah Department of Transportation  
Aeronautical Operations Division  
135 North 2400 West  
Salt Lake City UT 84116  
Phone: 801-715-2260  
Fax: 801-715-2276  
[www.udot.utah.gov/main](http://www.udot.utah.gov/main)

**Washington**

Washington Dept. of Transportation  
Department of Aeronautics  
18204 59 Dr., NE, suite B  
Arlington, WA 98223  
360-651-6300  
[www.wsdot.wa.gov/aviation](http://www.wsdot.wa.gov/aviation)

**Wyoming**

Wyoming Department of Transportation  
Aeronautics Division  
200 East 8th Ave.  
Cheyenne, WY 82001  
Phone 307- 777-3952  
Fax: 307-637-7352  
[www.wydotweb.state.wy.us](http://www.wydotweb.state.wy.us)

## APPENDIX E

### Western State Pilot Associations

Arizona Pilots Association  
P.O. Box 61242  
Phoenix, AZ 85082  
[www.azpilots.org](http://www.azpilots.org)

California Pilots Association  
P.O. Box 6868  
San Carlos, CA 94070  
(800) 319-5286  
[www.calpilots.org](http://www.calpilots.org)

Colorado Pilots Association  
P.O. Box 200911  
Denver, CO 80220  
(303) 367-0670  
[www.coloradopilots.org](http://www.coloradopilots.org)

Idaho Aviation Association  
P.O. Box 963  
Nampa, ID 83650  
208-861-9056  
[www.flyidaho.org](http://www.flyidaho.org)

Montana Pilots' Association  
P.O. Box 4311  
Helena, MT 59604  
[www.montanapilots.org](http://www.montanapilots.org)

Oregon Pilots Association  
23115 Airport Road NE, #13  
Aurora, OR 97002  
1-877-OPA-PILOT  
[www.oregonpilot.org](http://www.oregonpilot.org)

New Mexico Pilots Association  
33 Wind Road, NW  
Albuquerque, NM 87120  
[www.nmpilots.org](http://www.nmpilots.org)

Recreational Aviation Foundation  
1711 West College Street  
Bozeman, MT 59715  
(406) 587-5199  
[www.theraf.org](http://www.theraf.org)

Utah Back Country Pilots  
Skypark Airport  
1887 South Redwood Road #16  
Woods Cross, UT 84087  
(801) 583-0341 (voice mail)  
[www.utahbackcountrypilots.org](http://www.utahbackcountrypilots.org)

Washington Pilots Association  
227 Bellevue Way NE  
Bellevue, WA 98004  
(800) WPA-FLYS  
[www.wpaflys.org](http://www.wpaflys.org)

Wyoming Pilots' Association  
3904 Central Ave. Suite A # 134  
Cheyenne, WY 82001  
(307)634-0221  
[www.wyomingpilots.org](http://www.wyomingpilots.org)

# Appendix F

## FAA Form 7480-1 plus instructions for filing

Form approved OMB No. 2120-0036

U.S. Department of Transportation Federal Aviation Administration												
NOTICE OF LANDING AREA PROPOSAL												
Name of Proponent, Individual, or Organization					Address of Proponent, Individual, or Organization (No., Street, City, State, Zip Code)							
<input type="checkbox"/> Check if the property owner's name and address are different than above, and list property owner's name and address on the reverse.												
<input type="checkbox"/> Establishment or Activation <input type="checkbox"/> Alteration		<input type="checkbox"/> Deactivation or abandonment <input type="checkbox"/> Change of Status		} OF		<input type="checkbox"/> Airport <input type="checkbox"/> Heliport		<input type="checkbox"/> Ultralight Flightpark <input type="checkbox"/> Seaplane Base		<input type="checkbox"/> Vertiport <input type="checkbox"/> Other (Specify)		
<b>A. Location of Landing Area</b>			1. Associated City/State			2. County/State (Physical Location of Airport)			3. Distance and Direction From Associated City or Town			
4. Name of Landing Area			5. Latitude		6. Longitude		7. Elevation		Miles		Direction	
<b>B. Purpose</b>												
Type Use			If Change of Status or Alteration, Describe Change				<input type="checkbox"/> Establishment or change to traffic pattern (Describe on reverse)		Construction Dates			
<input type="checkbox"/> Public <input type="checkbox"/> Private <input type="checkbox"/> Private Use of Public Land/Waters									To Begin/Began		Est. Completion	
<b>C. Other Landing Areas</b>		Ref. A5 above		<b>D. Landing Area Data</b>			Existing (if any)			Proposed		
		Direction From Landing Area	Distance From Landing Area	1. Airport, Seaplane Base, or Flightpark			Rwy #1	Rwy #2	Rwy #3	Rwy	Rwy	Rwy
				Magnetic Bearing of Runway (s) or Sealane								
				Length of Runway (s) or Sealane (s) in Feet								
				Width of Runway (s) or Sealane (s) in Feet								
				Type of Runway Surface (Concrete, Asphalt, Turf, Etc.)								
				2. Heliport								
				Dimensions of Final Approach and Take off Area (FATO) in Feet								
				Dimensions of Touchdown and Lift-Off Area (TLOF) in Feet								
				Magnetic Direction of Ingress/Egress								
<b>E. Obstructions</b>		Type	Height Above Landing Area	Direction From Landing Area	Distance From Landing Area	Routes			Type of Surface (Turf, concrete, rooftop, etc.)			
						3. All Landing Areas			Description of Lighting (If any)			
									Direction of Prevailing Wind			
<b>F. Operational Data</b>												
1. Estimated or Actual Number Based Aircraft												
Airport, Flightpark, Seaplane base		Present (If est. indicate by letter 'E')		Anticipated 5 Years Hence		Heliport		Present (If est. indicate by letter 'E')		Anticipated 5 Years Hence		
Multi-engine						Under 3500 lbs. MGW						
Single-engine						Over 3500 lbs. MGW						
Glider												
<b>G. Other Considerations</b>			Direction From Landing Area	Distance From Landing Area	2. Average Number Monthly Landings							
Identification					Present (If est. indicate by letter 'E')		Anticipated 5 Years Hence		Present (If est. indicate by letter 'E')		Anticipated 5 Years Hence	
					Jet		Helicopter					
					Turboprop		Ultralight					
					Prop		Glider					
3. Are IFR Procedures For The Airport Anticipated												
<input type="checkbox"/> No <input type="checkbox"/> Yes    Within _____ Years    Type Navaid:												
<b>H. Application for Airport Licensing</b>												
<input type="checkbox"/> Has Been Made <input type="checkbox"/> Not Required <input type="checkbox"/> County <input type="checkbox"/> Will Be Made <input type="checkbox"/> State <input type="checkbox"/> Municipal Authority												
<b>I. CERTIFICATION: I hereby certify that all of the above statements made by me are true and complete to the best of my knowledge.</b>												
Name, title (and address if different than above) of person filing this notice -- type or print					Signature (in ink)			Date of Signature		Telephone No. (Precede with area code)		

FAA Form 7480-1 (1-93) Supersedes Previous Edition

Central Region Electronic Revision per ACE-625 (March, 2000)

**Paperwork Reduction Act Statement:** The information collected on this form is necessary because it is the description of the physical and operational characteristics of the airport that will be on file with the FAA. The information on all airports will be maintained in FAA computers for record keeping purposes and used in airspace studies. Some of the information on public use airports is safety-critical and will be published in flight information handbooks and charts for pilot use. The burden associated with completing this form is estimated to be 30 minutes. Providing this information is mandatory if the proponent wishes to have the airport on file with the FAA and entered into the National Airspace System. No assurances of confidentiality are given. An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number. The OMB control number associated with this collection is 2120-0036.

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**INSTRUCTIONS  
NOTICE OF LANDING AREA  
PROPOSAL**

**As Used Herein, The Term "Airport" Means  
Any Landing or Takeoff Area such as Airport, Heliport, Helistop, Vertiport, Gliderport, Seaplane Base,  
Ultralight Flightpark, or Balloonport**

Federal Aviation Regulations Part 157 requires all persons to notify the FAA at least 90 days before any construction, alteration, activation, deactivation, or change to the status or use of a civil or joint-use (civil/military) airport. Notice is not required for the establishment of a temporary airport at which operations will be conducted under visual flight rules (VFR) and will be used for less than 30 days with no more than 10 operations per day. Notice also is not required for the intermittent use of a site that is not an established airport, which is used for less than one year and at which flight operations will be conducted only under VFR. Intermittent use means the use of the site for no more than 3 days in any one week and for no more than 10 operations per day.

Required notice shall be submitted on this form from each person who intends to do any of the following:

1. Construct or otherwise establish a new airport or activate an airport.
2. Construct, realign, alter, or activate any runway, or other aircraft landing or takeoff area of an airport.
3. Construct, realign, alter, or activate a taxiway associated with a landing or takeoff area on a public-use airport.
4. Deactivate, discontinue using, or abandon an airport or any landing or takeoff area of an airport for a period of one year or more.
5. Deactivate, abandon, or discontinue using a taxiway associated with a landing or takeoff area on a public-use airport.
6. Change the status of an airport from private use (use by the owner or use by the owner and other persons authorized by the owner) to an airport open to the public or from public-use to another status.
7. Change status from IFR to VFR or VFR to IFR.
8. Establish or change any traffic pattern or traffic pattern altitude or direction.

The notice required shall be made by submitting this form to the nearest Federal Aviation Administration Regional Office or Airports District Office. However, in an emergency involving essential public service or when the delay arising from the 90-day advance notice requirement would result in an unreasonable hardship, you may provide notice to the appropriate FAA Airports District/Field Office by telephone in lieu of submitting this form. The FAA may require the subsequent submission of this form when necessary for safety or other reasons.

Section 901 of the Federal Aviation Act of 1958, as amended, provides that any person who violates a rule, regulation or order issued under Title III of this Act shall be subject to a civil penalty not to exceed \$ 1,000 for each violation.

## GENERAL INSTRUCTIONS

1. For any project falling in categories 1, or 2 above, complete all appropriate sections.
2. For any project falling in categories 3, 4, or 5 above, complete sections A, B, D (if appropriate), and I.
3. For status change (categories 6 or 7 above), from private use to public use or from VFR to IFR, complete sections A, B, E, G, and I. For all other changes, complete sections A, B, and I.
4. For traffic pattern establishment or change (category 8) complete all appropriate sections. Traffic pattern description should be entered on the reverse side of FAA Form 7480-1.
5. Express all bearings as magnetic and mileages as nautical.
6. **Please Print or Type All Items.**

**Section A** - Identify Reference Datum of Coordinates (NAD 83 or NAD 27)

**Section B** - If the airport is to be used by the owner only, or by the owner and persons authorized by the owner, check "private". If the landing and takeoff area of the airport is publicly owned and the operator is a non-government entity, then check "private use of public lands". If the airport is to be available for use by the general public without a requirement for prior approval of the owner or operator, then check "public". If necessary, use the reverse side of the form or a separate sheet of paper to describe changes or alterations.

**Section C** - Airport or seaplane base: List VFR airports and heliports within 5NM, and IFR airports within 20NM. Heliports: List VFR airports and heliports within 3NM and IFR airports within 10NM.

**Section D** - Attach U.S. Geological Survey quadrangle map or equivalent. Plot locations of facility to the nearest second, runway alignments, associated taxiways or sealane alignments. When appropriate, use city map for heliports.

**Section E** - List and plot on quadrangle map or equivalent any obstructions within: 3NM of a VFR airport or a seaplane base; 5NM of an IFR airport; or 5,000 feet of a heliport.

**Section F** - Self-explanatory.

**Section G** - List schools, churches and residential communities within a 2NM radius for airports and within a 1NM radius for heliports. List all waste disposal sites within a 5NM radius.

**Section H** - Self-explanatory.

**Notification to the FAA does not waive the requirements of any other government agency.**

### ADDRESSES OF THE REGIONAL OFFICES

Submit your completed form by mail to:

**Western Pacific Region**  
**AZ, CA, HI, NV, GU**

Federal Aviation Administration  
Airports Division, AWP-600  
15000 Aviation Boulevard  
Hawthorne, CA 90261  
Mail Address:  
P. O. Box 92007  
Worldway Postal Center  
Los Angeles, CA 90009  
Tel. 310-725-3608 Fax: 310-725-6847

**Alaskan Region**  
**AK**

Federal Aviation Administration  
Airports Division, AAL-600  
222 West 7<sup>th</sup> Avenue, Box 14  
Anchorage, AK 99513  
Tel. 907-271-5438 Fax: 907-271-2851

**Eastern Region**  
**DC, DE, MD, NJ, NY, PA, VA, WV**

Federal Aviation Administration  
Airports Division, AEA-600  
1 Aviation Plaza  
Jamaica, NY 11434-4809  
Tel. 718-553-3330 Fax: 718-995-5694

**Southern Region**

**AL, FL, GA, KY, MS, NC, SC, NT, PR, VI**  
Federal Aviation Administration  
Airports Division, ASO-600  
1701 Columbia Avenue  
College Park, GA 30337  
Mail Address:  
P. O. Box 20636  
Atlanta, GA 30320  
Tel. 404-305-6700 Fax: 404-305-6730

**Northwest Mountain Region**

**CO, ID, MT, OR, UT, WA, WY**  
Federal Aviation Administration  
Airports Division, ANM-600  
1601 Lind Avenue, S.W., Suite 315  
Renton, WA 98005-4056  
Tel. 425-227-2800 Fax: 425-227-1600

**Great Lakes Region**

**IL, IN, MI, MN, ND, OH, SD, WI**  
Federal Aviation Administration  
Airports Division, AGL-600  
2300 East Devon Avenue  
Des Plaines, IL 60018  
Tel. 847-294-7272 Fax: 312-294-7036

**Southwest Region**

**AR, LA, NM, OK, TX**  
Federal Aviation Administration  
Airports Division, ASW-600  
2601 Meacham Boulevard  
Fort Worth, TX 76137-4298  
Tel. 817-222-5600 Fax: 817-222-5984

**Central Region**

**IA, KS, MO, NE**  
Federal Aviation Administration  
Airports Division, ACE-625 9  
01 Locust  
Kansas City, MO 64106-2325  
Tel. 816-329-2600 Fax: 816-329-2610

**New England Region**

**CT, MA, ME, NH, RI, VT**  
Federal Aviation Administration  
Airports Division, ANE-600  
12 New England Executive Park  
Burlington, MA 01803  
Tel. 781-238-7600 Fax: 781-238-7608

# Appendix G

## United States House of Representatives Resolution 1473

Congress of the United States  
Washington, DC 20515

June 24, 2010

### Support Recreational Aviation and Backcountry Airstrips *Cosponsor H.Res. 1473*

Dear Colleague:

We respectfully ask you to join us in supporting H.Res. 1473, a resolution supporting recreational aviation and backcountry airstrips on America's public lands.

Backcountry airstrips are a part of life for many Americans, especially in the West. They provide countless benefits to the general public, including search and rescue, fire management, research, disaster relief and wildlife management. They also allow public access to some of the most beautiful, remote federal lands in America—regardless of one's physical ability to otherwise enjoy the backcountry.

Backcountry airstrips serve as efficient access points for tourists, who in turn contribute to local economies and small businesses. More importantly, in the event of mechanical problems or inclement weather, they serve as emergency landing sites when larger airports are out of reach. Too often, however, these airstrips are targeted for closure by the federal government or well-funded special interest groups, or simply ignored by bureaucrats in Washington, D.C.

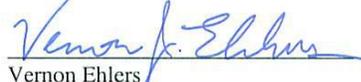
During a time when our lands are under threat from drought, insect infestation and wildfire, and when our economy continues to struggle, backcountry airstrips serve a valuable role for land managers and visitors alike. Please join us in recognizing the value of recreational aviation and backcountry airstrips, in addition to commending aviators and the various private organizations that maintain these airstrips for public use.

If you have any further questions or would like to cosponsor H.Res. 1473, please contact Eric Bierwagen in Congressman Rehberg's office at [eric.bierwagen@mail.house.gov](mailto:eric.bierwagen@mail.house.gov).

Sincerely,



Denny Rehberg  
Member of Congress



Vernon Ehlert  
Member of Congress



Allen Boyd  
Member of Congress



Mike Simpson  
Member of Congress



Walt Minnick  
Member of Congress

PRINTED ON RECYCLED PAPER

111TH CONGRESS

2D SESSION **H. RES. 1473**

Supporting backcountry airstrips and recreational aviation.

IN THE HOUSE OF REPRESENTATIVES

JUNE 24, 2010

Mr. REHBERG (for himself, Mr. EHLERS, Mr. BOYD, Mr. SIMPSON, and Mr. MINNICK) submitted the following resolution; which was referred to the Committee on Transportation and Infrastructure.

## **RESOLUTION**

Supporting backcountry airstrips and recreational aviation.

Whereas recreational aviation represents a significant portion of the Nation's aviation activity;

Whereas recreational aviators utilize backcountry airstrips as access points for a variety of activities;

Whereas backcountry airstrips provide multiple benefits to the general public, including search and rescue, fire management, research, disaster relief, and wildlife management;

Whereas recreational aviation helps State economies by providing efficient access for visitors seeking recreational activities;

Whereas backcountry airstrips serve as emergency landing sites in the event of mechanical problems or inclement weather;

Whereas backcountry airstrips provide access for those who do not have the physical ability to access backcountry areas by other means; and

Whereas recreational airstrips have a small footprint on the landscape, provide for dispersed recreational activity, and act as internal trailheads within backcountry areas:

Now, therefore, be it

***Resolved*, That the House of Representatives recognizes the value of recreational aviation and backcountry airstrips located on the Nation's public lands and commends aviators and the various private organizations that maintain these airstrips for public use.**

# APPENDIX H

## Aircraft Takeoff Performance Example

### TAKEOFF DISTANCE MAXIMUM WEIGHT 2800 LBS

**SHORT FIELD**

CONDITIONS:  
Flaps 20°  
2400 RPM, Full Throttle and Mixture  
Set Prior to Brake Release  
Cowl Flaps Open  
Paved, Level, Dry Runway  
Zero Wind

**NOTES:**

- Short field technique as specified in Section 4.
- Prior to takeoff from fields above 5000 feet elevation, the mixture should be leaned to give maximum power in a full throttle, static runup.
- Decrease distances 10% for each 9 knots headwind. For operation with tailwinds up to 10 knots, increase distances by 10% for each 2 knots.
- For operation on a dry, grass runway, increase distances by 15% of the "ground roll" figure.

WEIGHT LBS	TAKEOFF SPEED KIAS		PRESS ALT FT	0°C		10°C		20°C		30°C		40°C	
	LIFT OFF	AT 50 FT		GRND	TOTAL								
				ROLL	TO CLEAR 50 FT OBS								
2800	52	57	S.L.	560	1090	605	1165	645	1245	695	1330	740	1420
			1000	615	1190	660	1275	705	1365	760	1455	810	1560
			2000	670	1305	720	1395	775	1495	830	1600	890	1715
			3000	735	1430	790	1535	850	1645	910	1765	975	1895
			4000	805	1575	865	1695	930	1820	1000	1955	1070	2100
			5000	885	1745	955	1875	1025	2020	1100	2175	1180	2345
			6000	975	1935	1050	2090	1130	2255	1215	2435	1305	2630
			7000	1075	2160	1160	2340	1245	2530	1340	2745	1440	2980
			8000	1190	2425	1280	2635	1380	2865	1485	3120	1600	3410

Figure 5-4. Takeoff Distance (Sheet 1 of 2)

### TAKEOFF DISTANCE 2600 LBS AND 2400 LBS

**SHORT FIELD**

REFER TO SHEET 1 FOR APPROPRIATE CONDITIONS AND NOTES.

WEIGHT LBS	TAKEOFF SPEED KIAS		PRESS ALT FT	0°C		10°C		20°C		30°C		40°C	
	LIFT OFF	AT 50 FT		GRND	TOTAL								
				ROLL	TO CLEAR 50 FT OBS								
2600	50	55	S.L.	475	925	510	985	545	1050	585	1120	625	1195
			1000	515	1005	555	1075	595	1145	635	1225	680	1305
			2000	565	1100	605	1175	650	1255	695	1340	745	1430
			3000	620	1200	665	1285	710	1375	765	1470	815	1570
			4000	675	1320	725	1410	780	1510	835	1620	895	1735
			5000	740	1450	800	1555	860	1670	920	1790	985	1920
			6000	815	1600	880	1720	945	1850	1015	1990	1085	2140
			7000	900	1775	965	1910	1040	2060	1115	2220	1200	2395
			8000	990	1980	1070	2135	1150	2305	1235	2495	1325	2700
			2400	48	53	S.L.	395	770	420	825	450	875	485
1000	430	840				460	895	490	950	525	1015	565	1080
2000	465	915				500	975	535	1040	575	1105	615	1180
3000	510	995				550	1065	590	1135	630	1210	675	1290
4000	560	1090				600	1165	645	1240	690	1325	740	1415
5000	610	1190				655	1275	705	1365	755	1460	810	1560
6000	670	1310				720	1405	775	1505	830	1610	890	1725
7000	740	1445				795	1550	855	1665	915	1785	980	1915
8000	815	1600				875	1720	940	1850	1010	1990	1080	2140

Figure 5-4. Takeoff Distance (Sheet 2 of 2)

5-12

1 October 1978

1 October 1978

5-13

SECTION 5  
PERFORMANCE

CESSNA  
MODEL 180K

CESSNA  
MODEL 180K

SECTION 5  
PERFORMANCE

## APPENDIX I



### Recreational Aviation Foundation

#### **VISION**

Preserving the legacy and promoting the enjoyment of aviation in the backcountry of America.

#### **MISSION**

Keeping the legacy of recreational aviation strong by preserving, maintaining and creating public use recreational and backcountry airstrips nationwide.

#### **GUIDING PRINCIPLES**

- The RAF works in a cooperative manner with public and private landowners/managers and aviation advocacy organizations on State and National levels.
- Aviation is a valid and appropriate way to access recreational opportunities on public or private land.
- Access to backcountry is well served by low-impact airstrips as trailheads.
- Safety education will help ensure the future of successful recreational aviation.
- Aviation safety through pilot education is paramount to the successful use and enjoyment of backcountry airstrips.
- The RAF, a volunteer-driven organization, works to develop partnerships in protecting the common interest of the recreational flying community.