

United States Forest Service Smokejumpers



Courtesy of the Boise National Forest

National User Guide

Mission

“....To protect human life, defend communities and property at risk, and conserve natural resources. We provide safe and effective response to wildfires, and other emergencies, and carry out a wide range of conservation projects that serve to promote our Nation’s legacy of healthy and productive forests and grasslands.”

Purpose of This Guide

- To inform Fire Managers and Dispatch Offices about the USFS Smokejumper program.
- Increase awareness of smokejumper utilization:
 - Initial and Extended Attack
 - Para cargo
 - Pre-positioning (Spike Base)
 - How to order smokejumpers.
 - What to expect when a Fire Manager utilizes Smokejumpers.
 - Special projects and prescribed fire



The McCall Smokejumper Base.

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FAQ'S

How much do Smokejumpers cost?

The average cost of an 8-person load with an ICT3, 2 hours of flight time in a Twin Otter, and a 16 hour day with hazard is \$5300. That's about the same cost as 2.8 hours of flight time for a Medium (Bell 212) exclusive use helicopter.

What is the injury rate for Smokejumpers?

Smokejumpers are the only federal firefighting group to keep accurate injury reports since 1991. The national rate of injury for Forest Service Smokejumpers is on average around .11% or 1 per 909 jumps. Of these 75% are minor injuries.

What kind of spot can they jump into?

Smokejumpers can jump into just about any terrain. Let the Smokejumper spotter determine wind conditions and the appropriate [jumpspot location](#).

Will there be an IC on board?

There will always be an IC on board of the [aircraft](#) and typically an ICT 3. Special requests for qualified individuals can be placed on the resource order. A jump load will usually have an abundance of [qualified individuals](#) including STL/TFL, medically trained personnel and a C-faller on board.

Will we have to support them once they are on the ground?

Smokejumpers always have enough food, water, and fuel for 48 hours. If additional support is needed [paracargo](#) is a great way to re-supply fires. [Demob](#) transportation may be needed to transport the jumpers from the fire to the local airport.

Is it "OK" to use Smokejumpers on fires that are not remote or hard to get to?

Absolutely, [Smokejumper utilization](#) varies greatly. Typically, it is still quicker to fly than drive. Once over a fire, the jump plane can guide local resources in; provide an accurate size-up, coordinate air resources, and staff the fire if requested to.

What if I can't give them an orientation briefing?

Smokejumper loads carry a diverse range of individuals who are familiar with the terrain and fuels in your area. Given BI's, ERC's, frequencies, and a map (carried onboard of the aircraft), the jumpers can safely attack fires anywhere in the country.

Do I have to arrange accommodations for them?

No. All smokejumpers carry government charge cards and are capable of arranging their own room and board. The “[Jumper In Charge](#)” may need assistance finding rooms if your area is excessively busy or they are arriving off of a fire late in the evening.

How do I know if there are jumpers available?

Dispatch should be familiar with the location and number of smokejumpers available in your geographic region. The Smokejumper Status website is also a good reference <http://www.nifc.gov/smokejumper/smjrpt.php>. For questions on ordering refer to [ordering procedures](#).

How do I use smokejumpers for [prescribed fire](#) or other projects?

Consider jumpers as a large pool of experienced personnel who do not have a district which they are tied to. Smokejumpers are typically available to be on your district accomplishing project objectives during shoulder season times. Current qualifications for prescribed fire are: Burn Boss, Firing Boss and Fire Effects Monitors. Determining which base to use for your operation is usually dictated by region or agency. For USFS projects there is no need for reimbursement agreements. It is best to call the operations desk of the Smokejumper Base within your region for information regarding ordering and availability.

Program Overview

Smokeyjumper Bases

Nationally there are 400 smokejumpers based in the following places:

Location	Personnel	Agency	Region
McCall, Idaho	70	USFS	R-4
Grangeville, Idaho	30	USFS	R-1
Missoula, Montana	60	USFS	R-1
West Yellowstone, MT.	15	USFS	R-1
Winthrop, Washington	20	USFS	R-6
Redmond, Oregon	35	USFS	R-6
Redding, California	40	USFS	R-5
Fairbanks, Alaska	65	BLM	Alaska
Boise, Idaho	65	BLM	Great Basin



Aircraft Performance

Smokeyjumpers use a variety of aircraft to accomplish fire and fire support operations. Smokeyjumpers commonly use the following aircraft:

Aircraft	Cruise Speed	Range
DC-3TP	210 mph	1150 miles
Twin Otter	170 mph	450 miles
Sherpa	170 mph	500 miles
Dornier	220 mph	750 miles
CASA 212	190 mph	500 miles

Availability

During peak fire season jumpers provide seven-day coverage. Smokeyjumpers are traditionally trained in May and are available for fire assignment on the first of June, smokeyjumpers may be available earlier than the first of June (depending on national resource needs). Smokeyjumper availability gradually decreases after the peak fire season (usually the end of September).

Smokeyjumpers are available for prescribed fire and other land resource projects. During fire season availability of smokeyjumpers depends on national resource needs. Pre and post fire season, smokeyjumpers may be available to assist with Land Resource/Fire Management projects.

Mobility

Smokeyjumpers are a highly mobile, shared national resource. Both USFS and BLM smokeyjumper bases commonly share resources to boost personnel and aircraft numbers where needed during periods of increased fire activity. Smokeyjumpers can also rapidly deploy by helicopter or drive to a fire location.

Qualifications

Smokejumpers are highly experienced and qualified wildland firefighters. Firefighters that are selected as smokejumpers have a wide variety of experience including engines, helitack, and hotshots. Smokejumpers are targeted to obtain the training and skills necessary to become qualified at the Crew Boss and Incident Commander Type 4 level. Smokejumper Foremen are targeted to qualify as Division Group Supervisor and Incident Commander Type 3. Many smokejumpers have I.C.S. qualifications beyond those targeted. All smokejumpers are trained annually in basic first aid and C.P.R. Approximately thirty percent of the jumpers are either Emergency Medical Technician or Outdoor Emergency Care certified.

[Smokejumpers are expanding prescribed fire qualifications to assist Land Resource/Fire Managers.](#) Current qualifications for prescribed fire are: Burn Boss, Firing Boss and Fire Effects Monitors.

Smokejumper Utilization

Initial Attack and Emerging Fires

Smokejumpers are most effective when used to rapidly initial attack new fires and when large numbers of firefighters are needed on emerging fires. Travel by fixed wing aircraft and parachute is often the quickest method of staffing a fire. Smokejumpers can also be quickly deployed via helicopter or truck. Although smokejumpers are frequently used in remote wilderness or roadless areas, smokejumpers can often reach a roaded or urban interface fire faster than resources that drive. [Smokejumpers are self sufficient for 48 hours](#), reducing logistical demands on a Fire Manager. Using smokejumpers for the following situations can greatly increase a fire managers options:

[Initial Attack](#) - When a new fire start needs aggressive suppression action.

[Multiple Fires](#) - When multiple fire starts have all local resources committed to initial attack.

[Emerging Fire](#) – Securing adequate resources in a timely manner can make the difference between an extended attack fire and an escaped fire. Smokejumpers can establish a type III team coordinating operational objectives, managing arriving resources, and if necessary facilitate a smooth transition to an Incident Management Team.

Smokejumper configurations for initial attack, multiple fires, and emerging fires:

- 8 jumpers, Twin Otter/Dornier, standard load.
- 10 jumpers, Sherpa/CASA, standard load.
- 12 jumpers, DC-3TP, standard load with pump and hose.
- 16 jumpers, DC-3TP, multiple fire / emerging fire load with pump and hose.
- 20 jumpers, DC-3TP, rapid response Type I crew.

When placing a request for smokejumpers it will be necessary to state the number of jumpers ordered, otherwise a standard load configuration will be dispatched. If a request cannot be filled with one aircraft (i.e. 16 jumpers DC-3TP emerging fire load) two aircraft with eight jumpers each may be dispatched.

Large Fire Incident

Smokejumpers can be effectively utilized on large fire incidents filling many resource needs.

Type I crew - Smokejumpers can be dispatched as a 20-person crew. Smokejumpers may also be requested to parachute into remote portions of a large fire. Jumpers will arrive self-contained for 48 hours.

Helispot construction - Smokejumpers can parachute into remote locations of an incident to construct helispots.

Overhead - Many incident command positions such as Strike Team Leader, Division/Group Supervisor, Safety Officer, and Air Tactical Group Supervisor can be readily filled by smokejumpers.

Para Cargo

Smokejumper aircraft are a fast, efficient, and very economical way to resupply any incident. Most Smokejumper Bases have a cache of pumps (Mark III, Hale Frye, and Shindawa 25) and hose, chain saws, water, and food bags pre-packaged for parachute delivery. Any items that we do not have can be ordered from the nearby cache. Fresh food orders can be placed through dispatch and we will procure the food, package, and deliver (*Please limit order to 40 firefighters*). Fresh food orders are more economical than M.R.E.'s and definitely improve moral on a longer duration fire.

Cargo weight by aircraft: DC-3TP – 7,800 lb. payload
Twin Otter - 3000 lb. payload
Sherpa - 4800 lb. payload
Dornier - 3000 lb. payload
Casa 212 – 4500 lb. payload



DC-3TP can deliver your fire resupply.

Spike Base & Pre-Positioning

Pre-positioning gives a fire manager the option of having smokejumpers available at a local airport for initial attack use. A spike base can be established when fire activity is expected to last more than one day. When fire activity is predicted, pre-positioning enhances a Fire Manager's available initial attack resources. If the predicted fire weather does not develop, the smokejumpers may be released. The following important information will help you in your decision to pre-position smokejumpers:

Duration - Pre-positioning smokejumpers can be from one day or until fire activity subsides.

Airport facilities - A facility must have Jet A fuel. Runway length must be 2500 feet for a Twin Otter or 4000 feet for the DC-3TP. For extended operations, basic sanitation and secure storage space will be needed. If phone service is not available we can provide a cell phone or radio for communication with Dispatch and the Fire Manager.

Supervision & Coordination – The Smokejumper Base will provide Overhead for spike base operations. Smokejumper overhead will work directly with the local Fire Manager and the local Dispatch office. Coordinating smokejumper utilization, logistical needs, and daily operations are the responsibility of the smokejumper Spike Base Manager. For a one day pre-positioning the smokejumper spotter will be the designated overhead.

Booster Smokejumper Crews - If additional smokejumpers are needed

they can be ordered through normal dispatching procedures (see page 8). Smokejumpers are a national resource and depending on local availability, booster orders may be filled by another region.

Resupply - Fire packs and necessary supplies can be driven or flown from caches throughout the west.

Support Vehicles - Vehicles will be needed for smokejumper retrieval and for daily travel. The local unit or the Smokejumper Base can supply vehicles.

Travel & Per Diem - Smokejumpers are self-sufficient and can pay for their own meals and lodging while on per diem. Pre-positioning is considered a fire assignment and the ordering unit will cover cost of per diem, overtime, and aircraft cost. The smokejumper unit will pay the base salary.

Rescue

The Smokejumper program has certified Emergency Medical Technicians and Outdoor Emergency Care technicians. All of our aircraft carry a fully equipped trauma kit, oxygen kit, and transport litter to provide for basic patient care. In the unfortunate event requiring a rescue, the smokejumpers can provide a fast response to provide medical attention and helispot construction should extrication be necessary. For federal government employees, your local dispatch office can request smokejumpers. The local sheriffs department must request the use of smokejumpers for the public.

Special Projects and Prescribed Fire

Smokejumpers like to assist prescribed fire managers with their projects. Smokejumpers provide land managers with professional, highly trained prescribed fire specialists who are familiar with a variety of fuel types. Smokejumpers supply Burn Bosses, Firing Bosses, Holding Specialists, Fire Effects Monitors, Crewmembers and a multitude of other ICS positions. They may also assist managers in writing burn plans, performing site preparation work and in performing mechanical hazardous fuels reduction work. Smokejumpers are often [available for prescribed fire assignment from January to May, and from September to December](#). Availability is contingent upon management priorities.

Smokejumpers can also provide personnel for specialized projects such as data surveys, NWCG course instruction, trail clearing, and tree climbing to help locate invasive insects, remove hazardous limbs in campgrounds and collect cones for seed collection.

Ordering Smokejumpers

The protocol for ordering Smokejumpers is dependent upon the user's geographical location. Smokejumpers may be ordered for initial attack, pre-positioning, booster smokejumpers, overhead assignments, and for special projects.

Initial Attack Smokejumpers

Orders for initial attack smokejumpers go directly to the local Dispatch Center. The Dispatch Center should consult with their GACC if there are any questions regarding availability or procedures. In order to speed the initial attack process Smokejumpers can be launched with incident information covering the **location coordinates, frequencies, known hazards, charge codes and other responding aircraft**. This information allows the Smokejumpers to launch before a resource order is completed. A [Smokejumper Action Report](#) can be faxed to the [Mission Coordinator](#). If a Resource Order is used it should be on an Overhead Order with the request number being IA - "#", and read 1 each "load of smokejumpers".

Pre-positioning

Any unit experiencing heavy initial attack demands exceeding what the local units' resources can meet, may request to pre-position a load of smokejumpers and their aircraft. If initial attack activity is expected to continue a spike base can easily be established. The requesting unit needs to order a smokejumper aircraft on an Aircraft Order and the requested amount of smokejumpers ordered on an Overhead Order with an "O" number for each smokejumper. Additional "O" numbers may be requested to provide a spike base manager/liaison.

All orders to establish a spike base will be processed through the GACC in concurrence with NICC. Once Dispatch receives the order, Dispatch and/or the Smokejumper unit will contact the requesting unit directly to identify any additional needs. The Spike Base Manager will work directly for the local Dispatch Center / Fire Manager and follow local protocol associated with initial attack dispatching and incident staffing needs.

Reinforcement Jumpers (Boosters)

Orders for additional smokejumpers will be placed on a standard Overhead Resource Order with an "O" number for each smokejumper requested processed through normal dispatch channels. Booster smokejumpers will come with a standard order of two main parachutes, one reserve parachute, jump gear, programmable radio, PPE, and personal gear for 21 days. Reinforcement smokejumpers do not come with smokejumper aircraft. If initial attack needs

exceed one aircraft, an additional aircraft may be ordered through established dispatch procedures using an aircraft order.

Overhead Assignments or Special Projects

If a unit needs additional help with fire overhead, Rx burning, or a special project they can order Smokejumpers. When smokejumpers are on their funded tours, they are committed to suppression but available for prescribed fire or other types of projects when suppression is not a priority. In the off-season smokejumpers may be available for prescribed fire and other projects. **The requesting unit should contact the smokejumper operations desk directly to determine if the required numbers of personnel are available.** If the request can be filled, a name request listed as a Technical Specialist (THSP) needs to be processed through the appropriate dispatch channels on an Overhead Order.

Smokejumper Operational Procedures

Get Away Time - When dispatch receives a request for smokejumpers the fire buzzer is sounded. Smokejumpers are suited and airborne within 15 minutes. A non standard request may increase the get away time.

The Spotter / Mission Coordinator –Smokejumper spotters are highly experienced in smokejumper and fire operations. Each smokejumper mission is flown with a one or two person team of spotters responsible for the delivery of smokejumpers and paracargo to an incident in a safe and efficient manner.

Communication - Once airborne, the smokejumper spotter will inform dispatch of an estimated time of arrival to the incident. The spotter will also contact the ordering unit as soon as radio communication can be established. The spotter will be using the call number for that aircraft (i.e. Jumper 41) for flight following and subsequent communication. All communication between the smokejumper aircraft and the requesting unit is the primary responsibility of the spotter.

Fire Size Up - Upon arrival over the fire, the spotter will notify the requesting unit and provide the following information:

- ✓ A thorough fire size up.
- ✓ Staffing recommendations.
- ✓ Additional resources needs (i.e. air tankers, helicopter with bucket, etc.).

If multiple aircraft are responding to the incident the spotter can serve as a temporary Air Tactical Group Supervisor.

Jump Spot Selection - The spotter and jumper-in-charge will select the jump spot based on wind, topography, ground hazards, and fire behavior. Jump spots are often on steep slopes and can be dense timber. Smokejumpers are well trained to safely parachute into these types of jump spots. Occasionally smokejumpers have not been considered due to misconceptions of what constitute a suitable jump spot. The Smokejumper Spotter can usually find a jump spot within a reasonable distance of the fire.



A suitable jump spot.

Parachute Operations - Once a jump spot is selected, wind indicators are released at jump altitude (1500 feet above ground level) to determine wind direction and speed. If conditions are favorable the ordering unit will be notified and the jumpers will begin to exit the aircraft. Once the required numbers of smokejumpers are on the ground, the aircraft delivers para cargo. The smokejumper aircraft will remain in the area until communication is established between the jumper in charge and the ordering unit.

Incident Commander / Jumper-In-Charge - Communication will be established with the appropriate contact as soon as possible. The Incident Commander will give a more detailed fire size up and confirm if they have adequate resources. If the smokejumpers are reinforcements, the jumper-in-charge will establish communication with the incident commander.

Logistical Support – Smokejumpers arriving on a fire are self sufficient for 48 hours. If an assignment will be longer than 48 hours the smokejumpers will need to be resupplied with food and water. The Smokejumper Base can readily provide the resupply if requested.

Demobilization – The smokejumper I.C. will coordinate the demobilization time with the ordering unit. Smokejumper demobilization can be achieved in a variety of ways:

Pack Out -Smokejumpers can carry their gear to the nearest reasonable pick up point. Smokejumper gear is typically 100+ pounds. If additional gear i.e. pumps and hose were used on the fire another option should be considered for demobilization.

Long Line – All smokejumpers are qualified in long line operations. Smokejumpers can send most of their gear out by long line and hike to the nearest pick up point.

Pack string – Smokejumpers can pack their gear to an accessible trail to be carried out by a pack string.

Helicopter – A helicopter can be used to retrieve smokejumpers and their gear. Jumper gear can be shuttled internally but may require more than one load depending on the number of jumpers and type of helicopter.

Vehicle – Smokejumpers can be transported back to the jump base or to a suitable airfield to be retrieved by either contract or smokejumper aircraft. Vehicles can be provided by the local unit or by the jump base. It is important to remember that the jumpers will have a large amount of gear. Typical vehicle requirements:

2 SMJs.....1 pickup.

4 to 6 SMJs...1 pickup and suburban or van.

8 to 12 SMJs..2 pickups and suburban or van.

Debriefing – The Smokejumpers want your feedback to continually improve operations, and to better meet your needs. When appropriate and convenient a debriefing is encouraged.

Contacts and Phone numbers

Redmond Smokejumpers

Redmond Air Center
1740 SE Ochoco Way
Redmond, OR 97756
OPERATIONS 541-504-7281
FAX 541-504-7288

North Cascades Smokejumpers

23 Intercity Airport Road
Winthrop, WA 98862
OPERATIONS 509-997-9760
FAX 509-997-2077

Redding Smokejumpers

6101 Airport Road
Redding, CA 96002
OPERATIONS 530-226-2886
FAX 530-226-2887

Missoula Smokejumpers

Aerial Fire Depot
Box 6, Airport Terminal
Missoula, MT 59802
OPERATIONS 406-329-4896
FAX 406-329-4955

Grangeville Smokejumpers

Grangeville Air Center
Route 2, Box 475
Grangeville, ID 83530
OPERATIONS 208-983-9584
FAX 208-983-9587

West Yellowstone Smokejumpers

WYIFC Box 610
West Yellowstone, MT 59758
OPERATIONS 406-646-7691
FAX 406-646-9598

McCall Smokejumpers

Box 1026
McCall, ID 93638
OPERATIONS 208-634-0378
FAX 208-630-0385

