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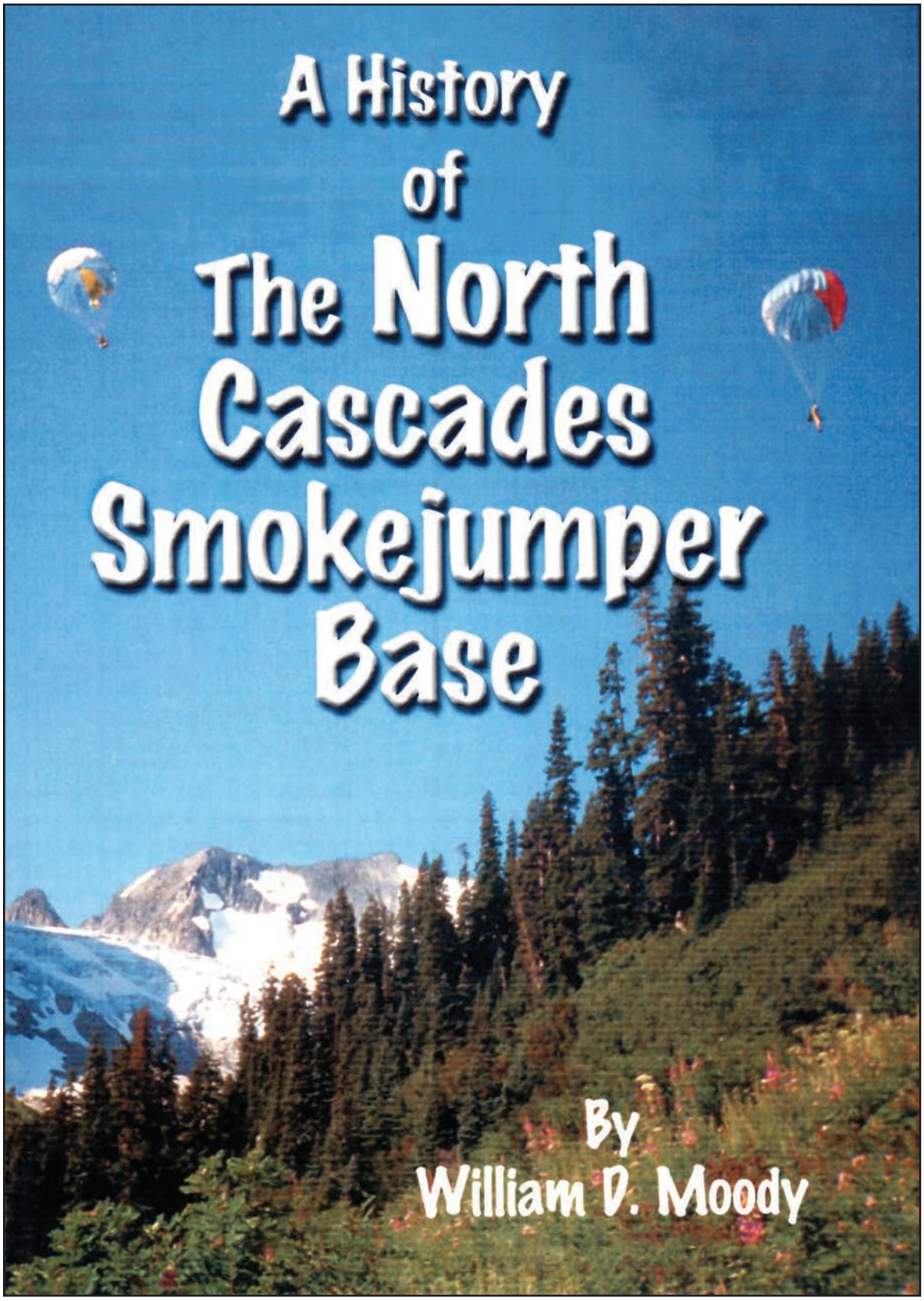
History of the North Cascades Smokejumper Base

William D. Moody


A History
of
The North
Cascades
Smokejumper
Base
By
William D. Moody

–National Archives

Dedicated to the memory
of

FRANCIS B. LUFKIN

August 1, 1914 – February 12, 1998

Pioneer Smokejumper
NCSB 1939–1972

National Smokejumper Association
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Missoula, MT 59806

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A History of the North Cascades Smokejumper Base

written by
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NCSB Smokejumper & Base Manager (1957-1989)

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Preface

A History of the North Cascades Smokejumper Base

William (Bill) D. Moody
April 1998
(Update March 2003)

Since 1939 several articles/documents have been written about the early days of smokejumping and the history of the North Cascades Smokejumper Base (NCSB). While the articles have been informative for the general reader, none have been comprehensive in documenting the nitty gritty details of NCSB's early history and its evolution to the early 2000s. This history is an attempt to provide a more detailed and comprehensive history of NCSB. A condensed highlighted version can serve as a briefing for smokejumper tour guides who conduct base tours.

The sources of information for this document include numerous original official memos and reports, newspaper and magazine articles, interviews with Francis Lufkin, my personal experiences of thirty-three years as an NCSB smokejumper (1957-1989) and Stan Cohen's *A Pictorial History of Smokejumping*.

This history focuses on the period of the late 1930s and early 1940s as the smokejumper program evolved from a concept to an approved operational program. A brief history of the period between 1950-2002, relating to base status and personnel changes, evolution of aircraft, parachutes, and points of interest will be presented. While this document will focus on NCSB, a brief history of program development in other Forest Service regions will also be addressed.

At the outset I want to make it clear that I am not a writer. Please excuse my poor unimaginative literary style. Hopefully, the information will overshadow my lack of journalistic ability.

ACKNOWLEDGMENTS

I wish to thank the following for their assistance in producing the first edition of this booklet. The timeframe was very short in order to make the May 2nd Lufkin Memorial Service; their "extra" effort is deeply appreciated.

- Mike Houk, Liberty Bell High School instructor, and his Social Studies Project class for word processing and photo scanning. Special credit goes to students Cassie Gage and Emily Oliver for extra effort each put forth.
- Julia Gennert, Copy Works in Winthrop for formatting, layout, picture scanning, copying and production.
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- Lola Lufkin for providing personal documents, photographs and memorabilia.
- Stan Cohen and his book *A Pictorial History of Smokejumping*, a great Historical reference.
- Dick Wildman for providing the slide/print appearing on the cover. This 1963 picture shows Dick and NCSB rookie jumper Ashley Court descending on Diobsud Creek near Mt. Baker on the Mt. Baker National Forest.

The second edition of this book, published in March of 2003, includes additional photos and updates the history book from 1998 to 2002. A special thanks to professional photographers Ira Spring and NCSB's Scott Wicklund for providing great photos for this edition. The publisher of this edition was The Craftsman, Wenatchee, Washington. Their assistance, especially graphic designer Sandy Wick, was much appreciated.

Preparing the Way

The Concept is Born

The successful use of aircraft for fire detection in the mid 1910s paved the way for more creative ways to apply aerial technology to forest fire control. In 1929 the first forestry-related cargo drops were made. By 1935 parachutes were routinely used to deliver cargo to firefighters and forestry crews. In the early 1930s, T.V. Pearson, a ranger from Utah, conceived the idea of parachuting men into forests to fight forest fires. In 1934 J.B. Bruce, a professional jumper, made a jump in Utah to demonstrate Pearson's concept. Although the jumps were successful, the concept was abandoned as being too risky. This was reflected in Regional Forester (Region 1) Evan Kelley's July 1935 memo to Mr. Earl Loveridge:

> *parachute jumpers are more or less crazy ... it s too risky... it will result in injury compensation cases... have no hankering to assume the responsibility for men risking their lives in any such undertaking.*

1935 Aerial Fire Control Experimental Project

A growing concern about large devastating forest fires, coupled with Forest Service aerial-minded visionaries, resulted in funding for a project to test and evaluate the use of aircraft for dropping water and chemical bombs to retard forest fire spread. The project was assigned to Region 5, the California Region. David Godwin, Assistant Chief of Fire Control, Washington Office, was in charge of the Aerial Fire Control Experimental Project. In 1938 the Forest Service purchased its first aircraft and assigned it to the experimental project. The aircraft was a 1938 five-place Stinson Reliant SR-10. Its identification number was NC-2166. The aircraft's vital statistics were: 450 horsepower engine, with a constant speed prop, 175 mph and capable of a 1250 lb. payload. This aircraft would later become the first smokejumper aircraft.

As testing continued in 1938, it was concluded that water-chemical bombing, for now at least, was not an effective means of suppressing or controlling wildfires. The experimental project was discontinued leaving both an aircraft and funding available for another aerial fire control project. Godwin, with support from advocates in Region 6 (see next section), shifted the funding from the Aerial Fire Control Experimental Project to developing a safe, practical method of dropping men by parachute to fight forest fires.

The Stage is Set: The Parachute Jumping Experiment

Timing is everything, so it has been said. The proposal and adoption of an experimental project to develop a safe and practical method of dropping (parachuting) men to fight forest fires was a matter of timing, although I am sure that eventually the concept would have been evaluated. Three critical elements came together in 1939. One was the premature termination of the water-chemical bombing project in Region 5, making surplus funding available under the Aerial Fire Control Experimental Project.

The second element was that the right people, supporters of the concept, were together at the right time. The players were all present in the Pacific Northwest Regional Office (Region 6) in 1939.

These players included:

1. Ray Headley–Washington Office, Chief of Fire Control
2. David Godwin–Washington Office, Assistant Chief of Fire Control
3. C.J. Buck–Region 6, Regional Forester
4. Otto Lindh–Region 6, Future Chief of Fire Control
5. M.C. Merritt–Region 6, Assistant Regional Forester, Operations
6. Captain Harold King–Region 6, Chief Pilot
7 . Jack Campbell–Region 6, Current Chief of Fire Control

Note: Captain Harold King was a very strong advocate and had made one parachute jump.

The project proposal was unanimously approved by those listed above and an experimental project to develop a safe and practical method of dropping men to fight wildfires was adopted with Region 6 providing national leadership.

The third key element was the personal effort of David Godwin, a man committed to advanced techniques for fighting forest fires. He was the chief pioneer developer of the smokejumper program.

Parachute Jumping Experimental Project Objectives

Note: The term smokejumper had not yet been adopted.

The objectives for the October-November 1939 experimental project:

1. To determine the feasibility of landing smokechasers from airplanes by parachute in rough terrain at high altitudes and in timbered areas.
2. To develop and test protective clothing suitable for safe landings in timbered, rocky areas, on steep slopes and other hazardous jumping sites.
3. To make preliminary investigation of devices and procedures and applying the method if found practicable, including communication, reaching the ground after being lodged in the trees, retrieving the parachutes, personnel, and equipment.

Location of the Parachute Experimental Project

The Chelan National Forest (now Okanogan-Wenatchee National Forest) was the site selected for the experimental project for the following reasons:

1. The forest was considered aerial-minded as it had been using army and private aircraft for recon since 1927. The Chelan had used parachute cargo drops from private airplanes to supply fire and work crews since 1931.
2. The Chelan National Forest owned a small airport between the towns of Twisp and Winthrop (lntercity Airport).
3. The airport was surrounded by national forest land with an elevation range of 1,500 to 7,000 ft.; diverse vegetation types ranging from grasses and shrubs to broad leafs and conifers; and terrain, from flat to steep and rugged.

–USFS

Intercity Airport, site of Parachute Jumping Experiment, 1939

–Ed Summerfield

NCSB in 1948, prior to flood, which swept facilities down river

–USFS

NCSB facilities, 1986

–USFS

Members of the Experimental Project crew in front of the Stinson Reliant, October 1939

4. The forest employed experienced and capable fire personnel for project support, including parachute retrieval.

Parachute Experimental Project Personnel

The Eagle Parachute Company from Lancaster, Pennsylvania, was contracted to provide both experienced parachutists, many of whom were barnstormers, and the basic equipment needs for the project. Contract personnel included the following:

1. Beach Gill–President of Eagle Parachute, project collaborator
2. Frank Derry–Professional jumper, head technical expert and owner of his own company, Derry Parachute Service of Inglewood, California
3. Glenn Smith–Professional exhibition jumper, rigger, trainer, and assistant to Frank Derry
4. Chester Derry–Professional jumper
5. Virgil Derry–Professional jumper
6. Dick Tuttle–No parachute jump experience, local person
7. Alan Honey–No parachute jump experience, local person

   Note: Frank, Chester, and Virgil Derry and Glenn Smith were responsible for the parachute and personal protective equipment to be used in the experiment. They were invaluable to the success of the experimentals.

Forest Service personnel assigned to the experimental project included:

1. David Godwin–Assistant Chief of Fire Control, Washington Office
2. Albert Davies–Division of Operations, Region 6
3. Roy Mitchell–Assistant Supervisor, Chelan National Forest
4. Captain Harold King–Engineer, Chief Pilot, Region6
5. Francis Lufkin–Fire Guard, Winthrop RD, Chelan National Forest
6. Harry Tuttle–Civilian Conservation Corp. Telephone Foreman, Chelan National Forest (Harry was Dick Tuttle's father.)
7. Lage Wernstedt–Division of Operations, Region6, Project Leader
8. Walt Anderson–Fire Assistant, Chelan National Forest (Took over as Project Leader when Wernstedt became ill.)
9. Frank Burge–District Ranger, Winthrop Ranger District, Crew Liaison, Field Advisor

Intercity Airport History

As previously mentioned, Intercity Airport, a small dirt airstrip located in the heart of the Methow Valley and Chelan National Forest, was selected as the base of operation for the fall 1939 experimental project. Prior to 1930, it belonged to Okanogan County. In 1931 the airstrip was donated to the American Legion, who in turn sold the airstrip to the Forest Service in 1932 for about one dollar an acre. The original property included a dirt airstrip 3,800 feet long.

In 1964 a land purchase allowed for extension of the runway to the north. In 1966 the dirt strip was surfaced and extended to 5,050 feet.

> **NOTE:** The 3,800 ft. runway made it difficult to get airborne on hot days due to the gross weight of the Twin Beech and DC-3s.

Increased public use of the airport, public aviation liability concerns, need for significant runway repairs/maintenance and funding lead to deeding of Intercity Airport to the Washington State Division of Aeronautics in the mid-1980s. The Forest Service wanted to get out of the airport business. The State renamed the airport Methow Valley State Airport in spite of several efforts to rename the airport Francis B. Lufkin Airport. The State, with major funding from the federal government (which was not available to the Forest Service), resurfaced the runway and taxiway in 1995.

The 1939 Parachute Experimental Project

Overview

From October 5 to November 15, 1939, the experimental parachute project was conducted in accordance with the objectives outlined in the project proposal. After making dummy drops (150 lb. dummies) in various vegetation and terrain types, 58 live jumps were made by 11 different jumpers, including professional contract jumpers, a number of US Forest Service project administrators and support personnel, and Francis B. Lufkin. The project was injury-free except for a minor leg ligament strain from a timber landing and cut face from an opening shock. The experimental jumps proved that firefighters, properly trained and equipped, could be safely parachuted into rugged mountainous terrain to fight forest fires.

Personnel Making Jumps

Both experienced and inexperienced professionals and US Forest Service personnel made live jumps during the project.

The experienced professionals included Frank Derry, Chester Derry, Virgil Derry and Glenn Smith. The inexperienced contract jumpers included locals Alan Honey and Dick Tuttle. Forest Service personnel making jumps included local Fire Guard Francis Lufkin, High Climber/Telephone Foreman, Harry Tuttle, Walt Anderson, Roy Mitchell and Albert Davies. The jumpers ranged in age from 23 to 55. Seven men made their first jump during the experiments.

Glenn Smith was the first to jump in timber near Tiffany Mountain, at what would subsequently be known as Parachute Meadows.

Captain Harold King piloted the Stinson during the jumps. King, who had previously made one parachute jump, was an early advocate of the project.

Equipment and Procedures

Aircraft. The Forest Service Stinson SR-10 (Reliant) served as the jump platform. Parachute jumps were free fall.

Parachute. The Eagle Parachute Company supplied the main backpack and auxiliary reserve parachutes. The main canopy, the Eagle BT-30, was a silk hand-deployed (rip cord) thirty-foot canopy with lobes to facilitate steering.

The canopy was maneuverable with 5 to 8 mph forward speed and was designed to descend at 12 feet per second. Three hundred and sixty degree turns took 8 seconds. The opening shock was horrendous. “Opening shocks could be heard for a distance of over 5 miles,” said Lufkin. Jumps were normally made at 4,000 to 5,000 feet above ground level.

The emergency chest pack was an Eagle twenty-seven foot diameter silk steerable canopy.

Parachute Drop Procedure. Dummies (l50 lbs.) were generally dropped in test areas (particular vegetation/terrain type) before live jumps were made. The first jumps, and jumps for inexperienced personnel, were made at the airport. Live jumps were preceded by a wind drift check made by dropping a 7-foot drift chute. Live jumps were generally

–USFS

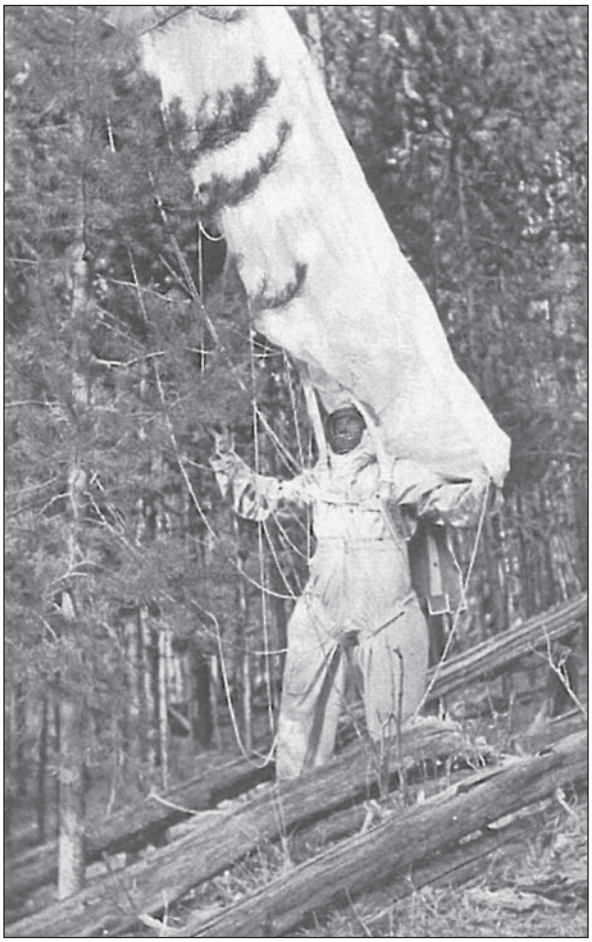
Spotter Frank Derry and pilot Harold King with jumpers before takeoff, October 1939

-USFS

"On Final"– ready for exit, freefall and full

-USFS

1939 experimental jumps–Eagle chute deploying



-USFS

Timber jump–1939 experimental

made at 4,000 to 5,000 feet above ground level (AGL). Forest Service High Climbers Harry Tuttle and Francis Lufkin retrieved the hung parachutes.

Protective Equipment.

1. Leather football helmet retrofitted with a wire mesh mask, basically the same design used today
2. Elastic back belt for lower back/abdominal protection
3. Ankle brace fitted over the 8 to 12 inch logger style jump boot
4. Gloves
5. Athletic supporter
6. Jumpsuit

The original jumpsuit was a one-piece suit designed by the Eagle Parachute Company and made by a company in Portland, Oregon. It had a rigid leather 10 inch collar. After a severe neck/facial abrasion caused by the rigid collar, the collar was redesigned. The one-piece suit was also redesigned by the Derrys to be more flexible and lighter. The felt padded suit weight was reduced from 20-25 lbs. to l5-l8 lbs. Local cobbler Jerry Sullivan Sr. did many of the equipment modifications on the jumpsuits.

Other Equipment.

1. Timber letdown rope. Jumpers carried a timber letdown rope, but I can't confirm its specs. In 1940 the rope was a 5/16" cloverleaf manila rope, usually 80 to 100 feet in length, depending on the region. NCSB used an 80 foot while Region 1 used a 100 foot rope.
2. Radio. One of the project objectives was to develop a smokejumper radio. The experimental radio was the new ultra high radio phone weighing 6 lbs. with batteries. Its dimensions were 2" x 4.5" x 12".

Parachute Jump Locations

The fifty-eight jumps were made in a cross section of terrain and vegetation types. Specific jump locations were:

1. Intercity (Methow Valley State) Airport
2. Barnsley Hillside
3. Beaver Creek
4. Near Winthrop
5. Black Pine Lake
6. Northwest Fork of Wolf Creek
7. Parachute Meadows-near Tiffany Lake/Mountain
8. Parachute Flat-Loup Loup area

The Name *Smokejumper*

The person credited for naming this new parachuting fireman was Walt Anderson, Chelan National Forest Chief of Fire Control. Walt took over as project leader after Lage Wernstedt became ill. Walt made one jump during the experimentals. The term smokejumper has been spelled *smoke jumper* (two words) and *smokejumper*. Smokejumper is the more widely used spelling.

Walt Anderson remembers: "How come the Smokejumper name? That's easy," he says, "since it came about naturally. Smokejumpers get up in the air in a hurry. From there they can see the smoke and go direct to the fire; no hunting, or detours because of brush, rock, cliffs, swamps. When they get to the fire, the smoke tells them which way the wind is blowing so they can land where a crown fire isn't going to burn them alive while hung up in a tree. Of all the ways to get to a fire in a hurry, smokejumping tops them all. You better call that hardy firefighter SMOKEJUMPER."

Experimental Project Conclusions and Recommendations

Conclusions drawn from the experiment were:

1. Smokejumpers could land safely in all kinds of green timber cover common to the Chelan National Forest. Its major timber types–sub alpine, lodgepole (mature and immature), mixed north slope Douglas fir and western larch, ponderosa pine, and hardwoods–are common to many areas in the western national forests. The experiment thereby proved that jumping could be done successfully in most of the green timber areas, except those of the tall, west coast Douglas fir and redwood types, provided the terrain was satisfactory.
2. Successful jumps could be expected in mountain meadows, open ridges, and steep open slopes if boulders were not too close together. Elevations under 7,000 feet above sea level offered no obstacles.
3. Snag areas, areas of down timber, lodgepole deadenings, extremely steep slopes, deep canyons, and areas of rock cliffs or ledges should be avoided.
4. Jumpers experienced less fatigue in jumping than would result from a short hike up a steep hill.
5. The denser the stand of timber, the easier the landings and the less shock experienced by the jumpers. Landings in thickets of young trees and reproduction were termed feather bed landings because of the manner in which the vertical descent of the smokejumper was checked.
6. Retrieving a parachute canopy from the crown of a tree or trees is a problem.
7. The ability to steer the type of parachute used contributed greatly to accuracy in hitting the ground target even when ground wind was stronger than l0 miles an hour. Gusty winds are much more troublesome than stronger, steady winds in that the unexpectedness will cause a 200 to 300 foot drift before the jumper can maneuver to compensate.
8. The type of parachute used had a natural forward glide in still air of from 5 to 8 miles per hour; this could be used to advantage by facing into the wind, thereby reducing the drift over the ground by a like amount.
9. There was no evidence of fear or panicky state of mind even in first time jumpers.

As already mentioned, the experimental project was injury free except for a minor knee twist incurred during a tree landing and a cut face caused from the opening shock. All of the project objectives were fully met.

So successful was the experimental project that the Washington and Regional Offices proposed two pilot operations for 1940 to test the concept under actual fire conditions.

1940 The First Operational Year

Introduction

The success of the 1939 experimental project resulted in a recommendation for establishing two training and operational smokejumper programs in 1940. The potential value of smokejumpers was stated in this 1940 memo:

> *One physically well-qualified and well-trained firefighter delivered on a fire in thirty (30) minutes is worth ten (10) to five hundred (500) CCC boys or pickup laborers delivered on the job a few hours later. Smokejumping obviously represents the ultimate in fast delivery of reinforcement or first attack men to fires.*

The recommendation called for 8 jumpers to be located in Region 6 on the Chelan National Forest at Winthrop and 8 jumpers to be located in Region 1's Lolo National Forest at Seely Lake Ranger Station. Frank Derry, from the Eagle Parachute Company, would be hired to work with both units as an instructor/rigger. Two additional riggers were also recommended. Unfortunately, due to lack of project funding, the number of jumpers would be limited to five jumpers at Winthrop and 9 jumpers in Region 1 . One Travelair aircraft, contracted from Johnson Flying Service in Missoula, would be shared by the two units. After June training in Winthrop was completed, the aircraft would return to Region 1 for training and fire standby. The plane would be moved to Winthrop as needed.

Region 6 and Region 1 Smokejumper Personnel

The Winthrop contingent consisted of Project Leader Albert Davies and the following jumpers:

1. Glenn Smith–smokejumper and rigger
2. Virgil (Bus) Derry–smokejumper
3. Francis B. Lufkin–smokejumper
4. George Honey–smokejumper (rookie-no previous jump)

Note: Dick Tuttle, the fifth jumper, was originally hired on the crew but was seriously injured when he fell from a cottonwood tree while attaching a radio antenna. The letdown rope broke and Dick fell 40 feet, sustaining a serious skull fracture. After recovering he worked as a parachute rigger/instructor for the CAA.

The Region 1 unit consisted of Project Leader Merle Lundrigan, nine jumpers including pioneers Frank and Chet Derry and seven rookie smokejumpers selected from each of the Region's national forests.

1. Rufus Robinson–Nez Perce National Forest
2. Earl Cooley–Bitterroot National Forest
3. Jim Waite–Clearwater National Forest
4. Dick Lynch–Flathead National Forest
5. Jim Alexander–Cabinent National Forest
6. Leonard Hamilton–Lolo National Forest
7. Bill Bolen–Kootenai National Forest

Recruitment Standards and Pay

The rookie recruitment standards in 1940 included smokechaser experience, good general physical fitness, age ranging from 21 to 25 years old, single marital status, and being a male.

Employment was for a two-and-one-half month period at $193 a month plus board, no overtime or hazard pay. Francis Lufkin and George Honey made $191.67 each in July 1940.

When not on smokejumper duty, Lufkin was also the Winthrop Ranger District Fireman and truck driver, while Honey was the Eight Mile Station Fireman and Fire Team Member.

Smokejumper Project Pay Scale. After a fair amount of debate between Region 1 and 6 and the Washington Office Personnel Management, the following salary pay scale was determined:

Project Leader $266 per month

Assistant Project Leader $200 per month

Engineer Pilot $317 per month

Chief Instructor, Rigger $320 per month (Frank Derry)

Parachute Instructor/Rigger $300 per month

Assistant Rigger $200 per month

Smokejumper $193 per month (actual), listed as $200 per month

High Climber $160 per month (for training period)

Parachute Riggers. The job description for a parachute rigger required the person to be between age 21 and 45 (or 40). The person must have been a CAA (Civilian Aviation Agency) licensed rigger and have made at least 10 parachute jumps, including two in mountainous terrain.

Smokejumper Training at Winthrop (NCSB)

Smokejumper training commenced under the leadership of Frank Derry on June 10, 1940. The three experienced jumpers and rookie George Honey were expected to complete the training in five to six days. The basic parachute training was presented in an oral lecture followed by demonstration jumps. After a letdown demonstration, the trainees practiced letdowns. Qualification jumps consisted of three jumps at the airport, followed by two timber jumps. The trainees were trained to spot themselves. A fire guard school concluded the training.

Smokejumper Pilot Training

The inexperienced smokejumper pilot was required to drop at least one jumper at the airport before starting to a fire.

Jump Procedures

A 2,000-foot minimum jump altitude (AGL) was policy. Jumpers spotted themselves using a seven-foot drift chute to determine wind drift and release point.

Smokejumper Equipment

Parachute System. The ripcord-deployed 30-foot BT-30 Eagle parachute and 27-foot Eagle reserve parachute comprised the primary smokejumper parachute system. The Winthrop inventory included ten sets of chutes costing $350 per set. With a growing shortage of silk due to Japanese aggression in the Far East, the availability of Eagle chutes became a concern. A few Irvin manufactured, military reject 28-foot main canopies with harnesses were purchased for $50 to $175 each.

Jumpsuit. The two-piece jumpsuit used in 1939 was adopted. Some, like Francis Lufkin's suit, were red. The 1940 cost per suit was $75. The jumpsuits were manufactured by the Seattle Woolen Mill.

Jump Helmet. Although there were (and still are) concerns with the jump helmet design, the helmet design has remained unchanged. Instead of football helmets, today's helmets are state of the art high impact helmets. Jumpers have discussed the desirability of going to a pyrolin window in the mask for clearer vision.

Jump Rope. Winthrop used an 80-foot, 5/16 inch cloverleaf manila rope. Region 1 used a 100-foot rope.

Radio Communications. The ultra high radio was available and carried in a pocket on the backpack main canopy cover.

Aircraft

The US Forest Service Stinson SR-10 used in the experimentals was to be transferred to the Alaska Region (R-10) and would not be available for the Region l or 6 smokejumper programs. This necessitated putting out a solicitation for a contract jump plane. The following contract specs appeared in the bid solicitation:

- High wing monoplane
- Slow stall speed
- Large door opening, no interfering struts or wings.
- Slow drop speed.
- Able to carry project leader, plus four smokejumpers, 4 sets of tools and miscellaneous equipment
- Available 30-90 minutes of base operations without delay due to fog or clouds
- Highly desirable that pilot has considerable experience in mountain flying, cargo dropping, and "letting out jumpers"

Johnson Flying Service of Missoula, Montana, was awarded the contract and provided a single engine Travelair airplane. The Travelair normally carried a project leader and two jumpers in the fire operations mode. The plane served both Winthrop and Region 1. Winthrop's contract was for $30 an hour with pilot. The Ford Tri-Motor, an 8-place jump ship, was first used at the end of the 1940 fire season.

Winthrop Jump Coverage Zone

Prior to the 1940 fire season, the Regional Office and national forests of Washington

-USFS

Francis Lufkin after first jump, Intercity Airport, 1939

-USFS

1940 jumper crew in front of Winthrop Ranger Station. L to r: Francis Lufkin, George Honey, Glenn Smith, Virgil (Bus) Derry

-USFS

Travelair, like the one used by Lufkin and Smith on first jump, shown here with jumper ready to exit

-USFS

Exit Travelair

-Bill Moody

First fire jump in Region 6, Pacific Northwest Region, Little Bridge Creek, Chelan National Forest, 1940

State mapped out the jumper response areas for Winthrop (NCSB). The primary response zone included the remote areas of the Chelan (Okanogan),Wenatchee, and Mt. Baker National Forests. If the fire was located off-forest on the west side of the Cascades, a local fireman would be picked up to direct the jumpers to the fire

> **Note of interest:** In 1937-38 there were no reported lightning fires in the Chelan National Forest jump zone. Also keep in mind that many thought that jumpers should only be used in remote, inaccessible areas–a mind set that has been very difficult to change.

The Historic Fire Jumps

Historic firsts were recorded for both units during the 1940 fire season. On July 10, 1940, a Travelair piloted by Dick Johnson responded to a small lightning fire in Martin Creek on the Nez Perce National Forest of Region l. At 3:57 PM Rufus Robinson, followed by Earl Cooley, made the first two jumps to a forest fire. On July l6 Rufus Robinson and Jim Waite jumped the second fire in smokejumping history, jumping to a plane crash involving a Johnson Flying Service plane. Chet Derry recorded the first rescue jump.

The fire season in Region 6 was slow, but in the second week of August a lightning storm passed through the Chelan National Forest causing multiple fires. On August 10, 1940, Francis Lufkin and Glenn Smith made the first fire jumps in Region 6 on Little Bridge Creek on the Twisp Ranger District. The jumpers landed within 200 yards of the fire. A second fire was jumped by George Honey and Virgil Derry the following day. The fire was located 2.5 miles from North 20 Mile Lookout. The jumpers landed within one-quarter mile of the fire in a marshy pond area and had quite a time retrieving their chutes.

A Successful First Year

The 1940 season concluded with l2 fires having been jumped: two in Washington and 10 by the Region 1 crew in Idaho and Montana. The first operational year was a major success and plans were underway for expanding the program to 40 smokejumpers in 1941, a plan that would ultimately be limited due to the growing threat of a world war. A four hour smokejumper bitch session at Winthrop in the fall of 1940 resulted in several recommendations with regard to ways to improve equipment, training, recruitment standards and jump procedures. In December 1940, Chet Derry would develop a static-line deployed main canopy.

The Army Airborne l0lst Division is Born

The success of the smokejumper program did not go unnoticed by the US Army. In June 1940 Major William H. Lee visited the Region 1 smokejumper program to learn more about smokejumper procedures and techniques. Major Lee incorporated Forest Service techniques into the establishment of the airborne paratrooper program: the 101st Division. Lee became known as the father of the airborne troops. Russia and Germany had already developed their paratrooper programs.

> **Note:** In the1930s the Russians dropped parachutists near a town and rallied the villagers to go fight fires near their town.

1941 Smokejumper Program

Preparations for 1941

An operational season having been concluded, the program was critiqued and recommendations were made for the next fire season. Significant dollar savings had been realized as a result of rapid initial attack on remote fires. Forty jumpers, including ten at Winthrop, were recommended for l941.

Plans to expand the smokejumper program were precluded by a growing threat of war and the unavailability of funding. It was decided to concentrate the program in Region 1. Region 1 had vast roadless areas, and the newly contracted Johnson Flying Service was located in Missoula. Jumper crews could be dispatched to other regions if needed. The training base was established at Nine Mile near Missoula. Winthrop's returning jumpers, Lufkin, Honey and Smith, joined 23 Region 1 experienced and rookie jumpers. After training, Lufkin returned to Winthrop to manage the Winthrop base when smokejumpers and aircraft were detailed to Winthrop from Region 1.

Smokejumper Qualification Standards

The following qualifications were established for 1941 recruits.

1. High school education
2. Two seasons or 6 months as a forest guard, field assistant, or smokechaser for a recognized agency
3. Age 21-35 years old
4. Physical examination equal to private pilot's exam
5. See well without glasses

Smokejumper Code of Conduct

The code of conduct for smokejumpers is listed below.

1. Safety first. Take no chances. If not safe, do not jump.
2. Use no nerve stimulant.
   (a) Keep a clear, cool head.
   (b) No liquor will be used on the job or at any time while on fire call.
3. You are personally responsible for all equipment assigned to you.
4. See that all your equipment is serviceable and inspected by rigger. Never alter jumping equipment without approval of a licensed rigger or project leader who will contact a rigger for you.
5. Never jump with matches or anything else in your pockets that will cause an injury. Put them in your smokechaser pack.
6. Care should be exercised in eating before jumping to avoid upset stomach.
7. Report all injuries and strains as soon as possible to your project leader.
8. Keep a complete diary as to time, place, and any other happenings that one would want a reference to, such as meals, lodging, and expense, as well as to all parts of your work.

9. Curfew is 10:00 p.m. or earlier while on jumping duty, unless you are on fire duty. Eight hours sleep is the objective.
10. Be prepared but mentally and physically relaxed. Learn to go into action quickly. MINUTES COUNT!

Live by these rules if you want to do right by a job requiring more from men than most. You are invited to return to your previous job if you feel this code is too restrictive.

Smokejumper Training

Smokejumper training recommendations made by the 1940 crew were implemented in 1941. The three- to four-week training period included the following:

Ground Training–One week

1. Short history of Parachutes
2. Types and parts of the parachute, including accessories
3. Demonstration to show parachute functions and rigging
4. Smokejumper dispatch routine procedure
5. Jump procedures and exits
6. Letdowns
7. Parachute landings
8. Radio communications
9. Care of parachutes and equipment
10. Retrieving parachutes
11. Organization
12. Work projects

Live Jump Training–Two or more weeks

1. Two to four jumps at the airport. Some men might receive six to ten airport jumps.
2. Two to four jumps in timbered area.
3. Refresher jumps scheduled every three weeks if no operational jump.

Smokejumper Equipment Changes

Parachutes. The Eagle B-30-S (static line) with a static line retrofit had been developed and would continue to be used until 1944. However, nylon flat circular chutes were becoming the chute of choice. Chet Derry had successfully retrofitted the Eagle with an eight-foot static line made of one-quarter inch manila rope. The static line was anchored to the door post.

Parachute Contract Solicitation. The Forest Service 1940 contract solicitation included the following specs for the 1941 parachute system:

- Parachute equal to or better than Army/Navy specs
- Detachable riser

- Main canopy 30 feet in diameter with a six-foot static line
- Static line with snap to metal ring secured to door casing
- Chest pack 27 feet in diameter
- Main canopy–maneuverable horizontally without use of main shrouds
- Maximum rate of descent at 5,000 ft. elevation not to exceed 14 feet per second
- Maximum oscillation not to exceed 5 degrees with canopy fully inflated
- Opening time average not to exceed 2 seconds

By 1941 all parachute manufacturers were producing canopies for the military. The smokejumper program could only procure a few rejects, which they did.

The Derry Brothers

It should be noted that the Derry brothers made invaluable contributions to the early smokejumper program. Their innovativeness and dedication to equipment development and program safety were critical in establishing a safe and effective smokejumper program. Younger brother Bob would join the family tradition in 1943 as a Missoula rookie jumper.

1941 Fire Activity

The 1941 fire season was slow in Region 1. Between Regions 1 and 6 only nine fires were jumped.

Highlights of 1942 through 1944

Smokejumper Recruitment Limited

Smokejumper program expansion was severely limited by the outbreak of World War II and the unavailability of qualified men. Only five experienced jumpers were available. Qualified riggers were assigned to the CAA or Army and Navy as parachute rigger instructors. Few new recruits had fire experience and equipment was hard to get. To meet the recruitment dilemma, the recruitment qualification age and experience requirements were reduced. Thirty-three recruits, with only a few having smokechaser experience, were hired. Lufkin helped train in Region 1 and then returned to Region 6 to set up a cargo operation at the Twisp Ranger Station. Francis would manage the smokejumper operation should it be activated during the summer.

Parachutes. New 30-foot Eagle parachutes were no longer available and only chutes unacceptable to the military could be procured by the Forest Service. The Derry Slotted 28-foot Irvin nylon canopy became a viable smokejumper canopy. Two control lines (riser connector to the canopy) closed the slot (on one side) resulting in a relatively fast turn. By grabbing and pulling down on the front risers, the rate and angle of descent could be increased. The opening shock was considerably less than the Eagle.

Program Evaluation

With the success of the 1940-42 seasons the experimental program was given fully approved operational status. The smokejumper program was recognized as an integral part of the Forest Service fire control program.

Smokejumper Recruitment

With World War II in full swing, only five experienced jumpers returned in 1943, and only four candidates could be recruited (among those who had not been able to pass the military physical). To augment the program, 62 Civilian Public Service (CPS) conscientious objectors were enlisted in the program. Three hundred conscientious objectors (military draft classification 4-E) had applied. Most were members of the Friends, Mennonite or Brethren Churches. The training for the 1943 contingent of 70 jumpers was centralized at Nine Mile. Jumpers would once again be dispatched out-of-region to Winthrop or to the two new bases at Cave Junction, Oregon, on the Siskiyou National Forest or to McCall, Idaho, on the Payette National Forest, should the need arise. Lufkin once again managed the cargo operation and satellite smokejumper operation on the Chelan National Forest out of the Chelan Ranger Station.

Recruitment continued to be a problem in 1944 and the CPS program continued. After training in Region 1, Lufkin set up the cargo-satellite base operating out of the Winthrop Ranger Station and Intercity Airport.

Aircraft

The Ford Tri-Motors, owned by Johnson Flying Service, were introduced in 1940. The Fords supplemented the fleet of Travelairs. In 1944, through cooperation with the US Marine Corp, Navy DC-3s were used on fires in southern Oregon out of Cave Junction.

-*US Army*

Firefly paratroopers, the black 555th Parachute Infantry Battalion suiting up to jump, 1945

-*US Army*

Military C-47 (DC-3) used to drop Firefly paratroopers, 1945

-*USFS*

Ford Tri-Motor, 1940-1967

-*USFS*

DC-3 Plane

-*USFS*

Francis Lufkin making experimental jump to test static line deployed Eagle

FS-2 with 7 foot Derry Slots

1945 Winthrop Base Reestablished

The availability of CPS jumpers, increased funding, and the successes of 1940 to 1944 resulted in the reestablishment of the Winthrop base as a permanent base. Winthrop had a contingent of overhead personnel plus 15 CPS jumpers. Training was conducted in Region 1 until 1947. A Forest Service Noordyun Norseman with a capacity of four jumpers and a spotter was assigned to Winthrop. The fire season was to be the worst fire season since the program began. The added threat of Japanese incendiary balloons landing in western forests gave rise to the enlistment of the Firefly Project with 300 black paratroopers trained as smokejumpers. They were assigned to augment the 220 Forest Service jumpers.

The Firefly Project

In 1944-45, as part of their psychological warfare program, the Japanese launched thousands of incendiary missiles/anti-personnel bombs. The bombs were carried by unmanned 30-foot diameter paper (laminated mulberry paper) balloons. The bombs consisted of five canisters filled with thermite and a large bomb containing shrapnel or three fire pots. The balloons were launched and would be carried 7,500 miles in the upper level winds (20,000-40,000 ft.) and were intended to land between Alaska and Mexico. Only one documented fire was started. Of the 298 recovered, one did explode killing six people in Southern Oregon. To counter this threat, the US Army responded with the Firefly Project in 1945, which provided 270 ground troops and 300 black paratroopers of the 555th Infantry Battalion. These men were trained by Forest Service smokejumpers at Pendleton, Oregon in 1945. One hundred men were stationed at Chico, California. The First Troop Carrier Command provided seven C-47s for the project.

Training for the paratroopers consisted of both basic fireman training and smokejumper training. The paratroopers were equipped with smokejumper gear.

Regions 1, 4, 5 and 6 were busy in 1945. The Firefly firefighters put in 147,562 man days on 282 fires, including 4,012 man days on 28 jumper fires.

Firefly Operations Out of Winthrop

The 1945 fire season was busy in Washington's national forests, and the 555th was called in to jump two fires on the Chelan National Forest and one on the Mt. Baker National Forest. The following are brief summaries of these fires.

1. **Bunker Hill (Peavy Creek) Fire**

   Location: U.S.–Canadian border in Pasayten Wilderness

   Forest: Chelan National Forest

   Fire Size: 180 acres

   Forces: 10 Forest Service jumpers, 97 paratroopers

   Aircraft: C-47

   Spotter: Francis Lufkin

   Remarks: 10 paratroopers incurred major injuries, primarily ankle and leg injuries resulting from the jump

2. The Parks Fire

Location: U.S.–Canadian border in Pasayten Wilderness

Forest: Chelan National Forest

Date: August 23, 1945

Fire Size: About l0 acres

Forces: 23 paratroopers

Remarks: Six jump-related and two fire-related injuries

3. Chilliwack Meadows (listed as Tillowack Meadows)

Location: U.S.–Canadian border north of Mt. Baker near Chilliwack Lake

Forest: Mt. Baker National Forest

Date: August 21, 1945

Fire Size: Unknown

Forces: 36 paratroopers

Remarks: Three serious jump injuries, plus a letdown related injury

In addition to the jumper fires, one hundred Firefly firefighters took ground action on a larger fire in the Okanogan Valley, the Spring Coulee Fire.

With the end of the war, the CPS and Firefly programs were discontinued. Several members of the CPS force would continue in the post-war smokejumper program.

North Cascades Smokejumper Base History 1945 to 2002

With the reestablishment of Winthrop as a permanent base, plans were initiated to develop the unit into a viable training base and firefighting force capable of making a rapid initial attack to remote backcountry fires. Surviving a half dozen base location and consolidation studies, the base remains a viable and important firefighting resource in the 2002s.

This section of the report will focus primarily on key events related to the North Cascades Smokejumper Base history.

Base Name Changes

Winthrop, the Okanogan, NCSB, Aerial Project, North Cascades: these are all names used to identify what is known today as the North Cascades Smokejumper Base or NCSB. The term Winthrop is a carryover from the experimentals. Some old timers still use the term. In 1955, when the Okanogan National Forest was created and the Chelan National Forest ceased to be, the Winthrop Base became known as the Okanogan Aerial Project. In 1967 the name was again changed to reflect a large share of the area it served: the North Cascades Smokejumper Base. NCSB is now administered by the Okanogan-Wenatchee National Forest.

Base Leadership

Smokejumper pioneer Francis B. Lufkin managed the Chelan National Forest cargo drop and smokejumper satellite base from 1941 to1944. In 1945, with a crew of 15 CPS jumpers, Lufkin became the Aerial Project Officer until the title was changed to Base Manager, probably in the late 1960s. In May of 1972, after 33 years in the program, Lufkin retired. Bill Moody, NCSB jumper since 1957, replaced Lufkin in the summer of 1972. Moody, after 33 years in the smokejumper program, retired in December 1989–the 50th year of the program. Doug Houston replaced Moody in early 1990. Francis Lufkin passed away on February 12, 1998, at the age of 83. In 2001 Doug Houston retired and was succeeded by Steve Dickenson, formerly jumping out of La Grande and Redmond, Oregon, bases.

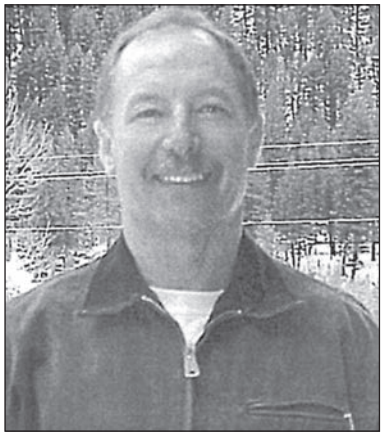
Crew Size 1940 to 1996

The 1940 crew based out of the Winthrop Ranger Station/lntercity Airport originally consisted of five jumpers. After Dick Tuttle's pre-season accident, the crew was reduced to four: Francis Lufkin, George Honey, Virgil (Bus) Derry and Glenn Smith. Budget constraints and the impact of World War II precluded maintaining a permanent crew on the Chelan National Forest from l941 to 1944.

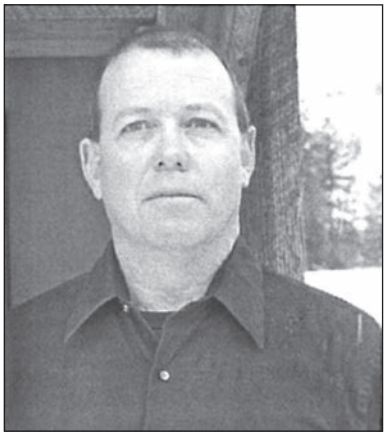
Since 1945 a jumper force has been maintained at NCSB. In 1946 the returning COs were supplemented by regular recruitments, many of whom were war veterans. The 1946 through 1956 crews consisted of 24 jumpers, plus four jumping overhead. The exception was 1948 when eleven additional jumpers were hired due to severe flooding and poor access to the backcountry due to washed-out roads. By the mid-1970s NCSB had 45 jump-qualified personnel, including overhead.

Francis Lufkin, 1941-1972

Bill Moody, 1972-1989



Doug Houston, 1990-2001



Steve Dickenson, 2001-present

-USFS

High level overhead stategy meeting next to Noordyn Norseman, 1953
L to r: Elmer Neufeld, Francis Lufkin, Howard Betty, pilot Wally Tower, and Jim Allen

The 1979 National Smokejumper Base Study set into motion a reduction of the number of bases and jumpers nationally. Region 6 was to centralize its program at Redmond, Oregon. By 1982 La Grande and Cave Junction (1981) were closed. La Grande would serve as a spike base as it did in 1957. All training was to be conducted at Redmond and jumpers would be stationed at NCSB when needed or only during the summer period.

A strong political response from the Methow/Okanogan Valleys and state/national congressmen, plus strong support from Forest Supervisor Bill McLaughlin and Fire Staff Phil Gumm, were able to persuade the Washington office and Region 6 to reach a compromise. Training would be centralized at Redmond, but NCSB would retain year-long overhead and a seasonal crew, but with reduced numbers. From 1979 to 1981 the crew was reduced from 45 jumpers to 11 jumpers. The reduction to eleven jumpers was a regional strategy to break our back. NCSB had to move all of its sewing machines to Redmond. All personnel chutes had to be rigged at Redmond and transported to NCSB. A subsequent regional smokejumper study in 1984 reinstated NCSB as a viable base. McLaughlin and Gumm were instrumental in NCSB's reinstatement. The number of jumpers increased to 20 plus a base manager, the sewing machines were returned, and once again NCSB could rig chutes at NCSB.

From l981 to 1984 two innovative hiring methods were employed to augment the eleven-person crew. Local ex-jumpers (ranger district and private individuals) were trained and used when the regular crew jumped out. The three or four retreads usually made three or four fire jumps per season. A group of four volunteers comprised the second group. The volunteers received free training and room and board. They went on pay status when assigned to a fire. Some of these men were hired as paid jumpers the next year. All four were highly motivated and excellent jumpers.

From 1985 to the present, NCSB has maintained a crew of 20 jumpers, plus a long term booster crew during potentially busy years. NCSB has also hosted regional rookie smokejumper training a couple of times since 1990.

Northeast Oregon-La Grande Satellite Base

From the early 1950s until 1957, NCSB set up temporary smokejumper operations at Enterprise, Joseph, and La Grande, Oregon. The operations were on a fire-by-fire or a storm-by-storm basis. Starting in 1958 NCSB set up seasonal operations at La Grande, Oregon. The base served the Umatilla, Wallowa-Whitman and Malheur National Forests. In 1972 La Grande became a permanent Region 6 base. The 1979 Smokejumper Base Study reduced La Grande to spike base status in 1982.

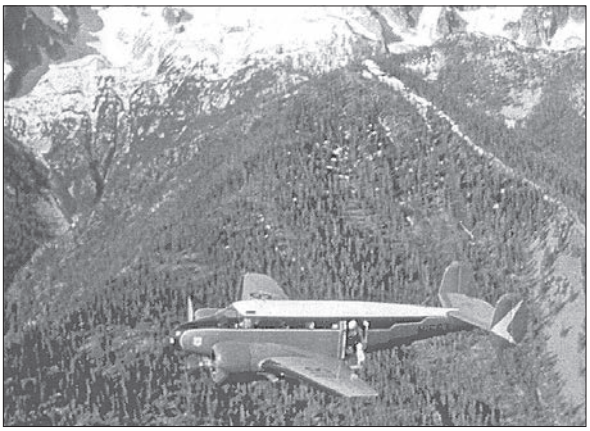
Aircraft

Throughout the years a number of different Forest Service owned and contract aircraft have been assigned to the NCSB program. The following chronology outlines the primary aircraft by year.

1939	Stinson Reliant SR-10
1940-1944	Travelair, Ford Tri-Motor (stationed in Region 1)
1945-1957	Noorduyn Norseman

-*Ed Summerfeld*

Noorduyn Norseman, 1945-1957

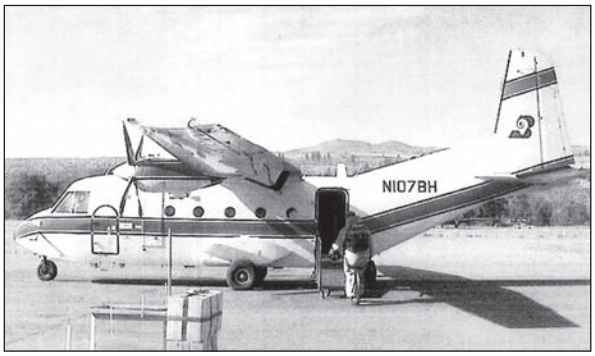


-*USFS*

Twin Beech dropping jumpers near Silver Star Mountain, 1966, Okanogan National Forest

-*Nick Sundt*

Boarding Twin Otter for jump on Hubbard Creek, 1985



-*Soo Ing-Moody*

Jumpers boarding CASA 212

-*USFS*

Squad leader Gus Hendrickson checks out 1957 jumper

-*USFS*

Squad leader Hal Weinmann checks out 1958 jumper

1958-1966	Twin Beech (Forest Service C-45 models)
1967-1971	Twin Beech, DC-3
1972-1979	DC-3, Beech 99A
1967-1977	Used Aero Commander 500B as backup and general utility
1980-1985	Beech 99A
1986-1989	Twin Otter
1990-1996	Twin Otter, Casa 2l2
1996-2002	Casa 212

The Forest Service Sherpa (Shorts 3-30) from the Redmond Base was sometimes detailed to NCSB during the 1990s.

Personnel Parachutes

Parachutes have gone through a steady evolution of improvement since 1939. The following chronology outlines the various chutes used service-wide (USFS) and by NCSB jumpers.

1939 Eagle, Model B T-30, 30 ft. diameter, silk, free fall/rip cord

1941–1940 Eagle, Model B-30S, 30 ft. diameter, silk, static line

1942 FS-1 Irvin 28 ft. diameter, flat circular, nylon, static line, two 6 ft. slots

1943 FS-2 Irvin 28 ft., slots lengthened to 7 ft. (Derry slots)

1954 FS-2 28 ft. Derry Slots plus introduction of FS-5 32 ft. flat circular with 7 ft. Derry Slots

1960 FS-2 plus a modified FS-5, the FS-5A with 10 ft. Derry Slots

Note: Prior to 1962 the Eagle, FA-1 thru FS-5A were accordion folded and enclosed under bungee cover. The static line was attached directly to the chute apex via a break cord. The opening sequence resulted in hard openings. It was not uncommon for jumpers to get abrasions on their clavicles, or shroud lines under their collar/helmet, or to lose the helmet on the opening, get a sore neck, or occasionally be knocked unconscious. In 1962 the D-bag was introduced to reduce the opening shock. Shroud lines were rigged on the outside surface of the bag and deployed prior to the canopy deploying from the container (bag). The D-bag would reduce malfunction potential.

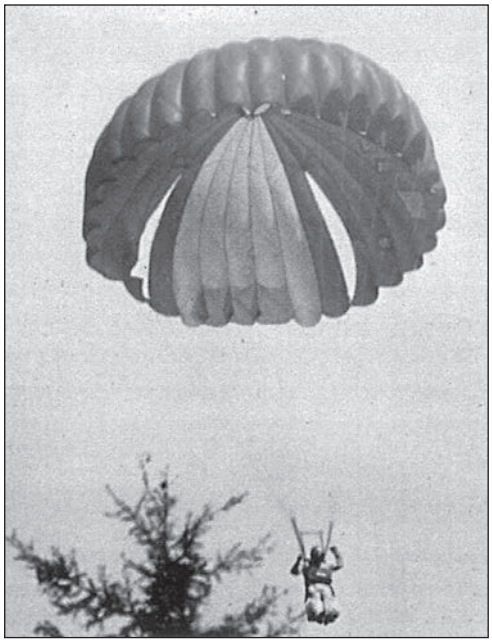
1967 Last year of use at NCSB for the FS-2. The FS-5A is now the only canopy.

1969 Toggles replace the two guidelines on the FS-5A. The military T-10 (35 ft. parabolic canopy with T-U seal cut) is introduced and approved. The T-10 is renamed the FS-10.

Early 1970s The FS-5A is gradually phased out and is replaced by the FS-10.

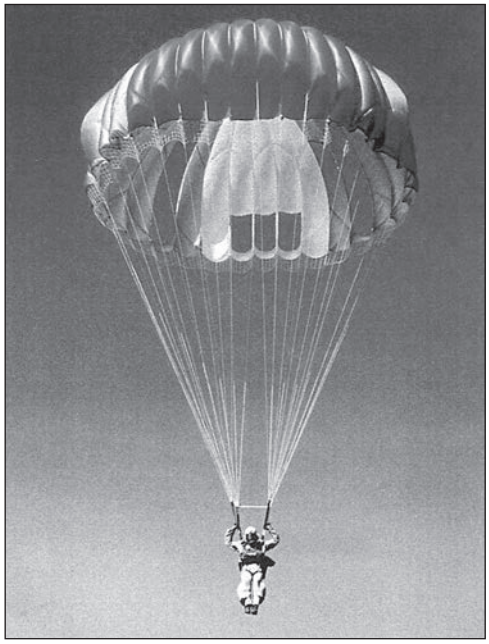
1977 Anti-inversion netting (AIN) retrofitted on all FS-10s to eliminate the potential for an inversion/malfunction.

1979 The XP-12, a 32 ft. flat circular multi-porosity chute with slots and rear cut-away panels, is introduced. This was copied from the Russian Forester parachute used by the Russian smokejumpers and presented to NCSB in 1977. Jim



FS-5A, 32-foot canopy

FS-10, 35-foot canopy



FS-13, 32-foot canopy

-Scott Wicklund

FS-14 adopted in 1997

Cyr and Frank Sanders, Missoula, are credited with developing XP-12 which became known as the FS-12.

l980-1995 The FS-12 continued to be used by the Forest Service while the Bureau of Land Management developed the Ram Air square parachute system. As of 2002 the Forest Service has not approved its use for US Forest Service jumpers.

1997-2003 The FS-14 round canopy is adopted. The canopy comes in three sizes to accommodate different jumper weights.

2003 The search is on for a new parachute, one with the best features of the round and Ram Air systems.

Historical Highlights 1939 to 2002

1939 Experimental Aerial Fire Control (Smokejumper) Project conducted at Intercity Airport, Chelan National Forest, fifty-eight jumps made.

1940 First operational year of the Smokejumper Program in Regions 6 and 1. First fire jump in Region 6 made by Francis Lufkin and Glenn Smith on August 10. George Honey and Virgil Derry make second fire jump on August l1. Albert Davies serves as Project Leader. Frank Derry is the primary instructor.

1941 Francis Lufkin assigned as Smokejumper Project Leader/Base Manager. Jumpers detailed to NCSB from Region 1 during fire activity. Training conducted at Missoula until 1949.

1945 Winthrop (NCSB) reinstated as permanent base.

1948 Spring flood destroys new loft and training facilities along the Methow River.

1948 Howard Betty records what is believed to be the first ever retrieval of a smoke jumper from a fire, the Fawn Peak Fire north of Winthrop. The open canopy Bell helicopter was contracted by the Forest Service for general flood relief and other Forest Service missions.

1949 Base relocated on east side of Intercity Airport at current location. Current loft and bunkhouse constructed.

1950 NCSB operates spike bases from various northeast Oregon airports on fire-by-fire basis.

1954 Jim Allen, Senior Squad Leader, transfers to Cave Junction as Foreman (Base Manager) of the Siskiyou Smokejumper Base.

1956 Major fire bust in Washington's North Cascades calling for several booster crews. Last year Ford Tri-Motor (Region 1) dropped jumpers out of NCSB. Francis Lufkin receives Superior Service Award.

1957 Crew increased by eight (22 rookies). Last year of the Noorduyn Norseman. La Grande established as NCSB's spike base for Northeast Oregon.

1958 Tragedy on Eight Mile Ridge.
During a severe lightning storm on July 23, 1958, while dropping a track fireline digger and other equipment to a jumper crew on Eight Mile Ridge Winthrop Ranger District, Okanogan National Forest, NI64Z, a Forest Service Twin Beech, crashed, killing all four on board. Twenty-two rookies who had driven to the fire witnessed the crash. Killed were pilot Robert Cavanaugh, Squad leader Keith (Gus) Hendrickson, Squad leader Trainee Gerald Helmer and Forester/Jumper Robert Carlman.

1959-1973 NCSB details jumper crews to La Grande, Oregon, for the season to serve northeast Oregon.

1960 Major fire bust in northeast Oregon out of La Grande Satellite Base.

1961 Busiest smokejumper season yet at NCSB–214 fires and 574 fire jumps.

1965 Hal Weinmann, Skinny Beals, and Tony Percival transfer to Redmond to help establish the Redmond Air Center smokejumper program.

1969 Elmer Neufeld, long-time training foreman, retires.

1970 All-time record year. Two major fire busts July and August/September. July bust utilized 176 jumpers, 156 during the August bust. Total of 1066 fire jumps and 212 fires out of NCSB, plus 213 fire jumps on 64 fires from the La Grande satellite base. There were over 325 takeoffs and landings per day and the messhall served over 800 meals daily during the July/August bust.

1970 Francis Lufkin retires after 33 years with the smokejumper program. NCSB jumper Bill Moody becomes Base Manager.

1974 International Cooperative Agreement to train Yukon Territory contract Canadian jumpers at NCSB. Smokejumper program seminar and demonstration jumps were made at Whitehorse, Yukon Territory, by NCSB overhead and Dave Russell piloting a USFS Twin Beech.

1974-1982 La Grande established as a permanent base. Several NCSB personnel reassigned to La Grande.

1976 Bill Moody goes to the U.S.S.R (now Russia) with Doug Bird (Washington Office) on US-Soviet Technical Exchange Program and makes two jumps in East Siberia.

1977 Soviets reciprocate Bill Moody's visit. Chief of Aerial Fire Operation Nicolai Andreev visits base, makes jump with NCSB jumpers, and presents USFS with Russian Forester parachute system and jumpsuit. Very busy fire season which ended abruptly in late August.

1979 National Smokejumper Base Study completed and NCSB staffing to be reduced in 1980.

1980 NCSB's sewing machines and rookie training transferred to Redmond and parachute rigging privileges revoked. Crew reduced to twenty. Politicians rally to support NCSB.

l981 NCSB crew set at 11 jumpers. First female in smokejumper program, Deanne Shulman, on detail to NCSB from McCall, Idaho.

1984 Revised national-regional study reverses 1979 decision to centralize smokejumper operations at Redmond. Sewing machines and rigging privileges reinstated.

1985 Crew increased to 21.

1986 First NCSB female recruits, Carlene Anders and Debbie Englehart, complete rookie training and make first fire jump.

1989 The smokejumper program celebrated its 50th year. Bill Moody retires after 33 years in the smokejumper program and becomes a fire consultant and air tactical group supervisor.

1990 Doug Houston replaces Bill Moody to become NCSB's third Base Manager.

1998 On February 12, Francis Lufkin passes away. His memorial service on May 2, 1998, was attended by hundreds of friends and former jumpers. Steve Reynaud, longtime Operations Foreman and holder of the national fire jump record (250), retires.

2000 Loft Foreman, Dale Longanecker, breaks Bill Moody's national total smokejumper jumps record when Dale made his 617th jump.

2001 Doug Houston retires and becomes a fire consultant/instructor. Steve Dickenson, La Grande jumper trained at NCSB in 1978, becomes NCSB's fourth Base Manager. Dale Longanecker sets another national record on his 278th fire jump to become the national leader, edging out retired-

Francis Lufkin's Last Offical Act – Spot the Overhead

UNITED STATES DEPARTMENT OF AGRICULTURE
FOREST SERVICE
NCSB

5-15-72
FL

REPLY TO: 5760 Smokejumping May 11, 1972

SUBJECT: End of Smokejumping Career

TO: Francis B. Lufkin, Aerial Project Officer

REPLY DUE MAY 12, 1972

As one of your last official acts, we the squadleaders and pilot, would consider it a privilege and honor to have you spot us on a training jump on Cotner Hill at 0815 on Monday, May 15, 1972.

William D. Moody
David W. Russell
Richard B. Wildman
James C. Grant
Don D. Fitzgerald
Michael M Marcuson

Completed 0905 5-15-72
FL

-*Dave Russell*

1972, before Lufkin's last offical act. L to r: Jim Grant, Don Fitzarrald, Mike Marcuson, Dick Wildman, Bill Moody, Francis Lufkin

Conclusion

Over six decades ago the smokejumper program was born in the Methow Valley in upper North Central Washington. Today the 20 jumpers of the North Cascades Smokejumper Base continue to serve their constituents in some of the most rugged and remote tall timber backcountry of the United States–the Olympics and Central/North Cascade Mountains of Washington.

NCSB has been an integral part of Forest Service and smokejumper history. Since 1940 NCSB has been the home base for over 440 rookies. The base has served its constituents well. NCSB's professionalism, versatility, and dedication to excellence is widely recognized and the Lufkin legacy lives on.

Many a great war story has its roots in the remote, hostile, rugged North Cascades, land of the 300-foot trees and the 250-foot jump ropes. May many more have the opportunity to share the NCSB legacy.

Base Update Since First Edition: 1998-2002

The 1998 season was very busy, both on project work and wildfire assignments in Washington, Alaska, Florida and Texas. Project work included prescribed fire, tree climbing and fire rehabilitation. John Button moved into the Operations and Training Foreman position replacing long time jumper-foreman Steve Reynaud.

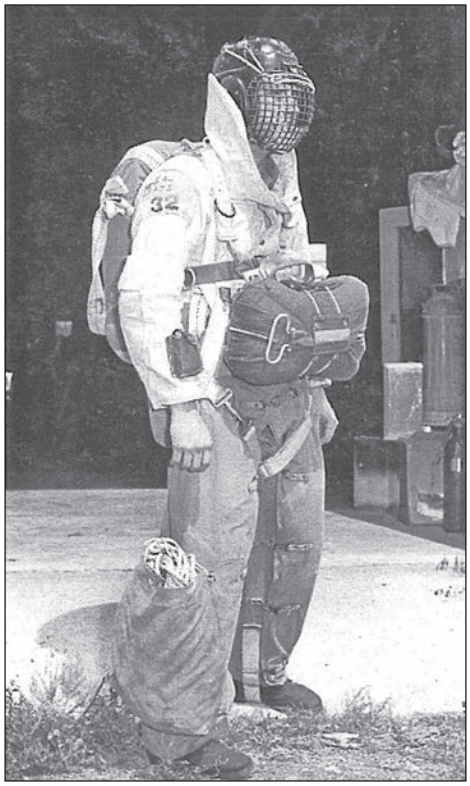
1999 on the other hand was relatively slow due to frequent wet thunderstorms. Year 2000 followed with an average season with 269 fire jumps on 59 fires. The live jump phase of Region 6 rookie training was conducted at NCSB.

In 2001 Base Manager Doug Houston retired and the fourth Base Manager in NCSB history, Steve Dickenson, took the reins. Steve trained at NCSB in 1978 as part of the La Grande rookie crew. In the spring and fall, 16 NCSB jumpers were detailed to the cities of Chicago and New York to climb urban trees infected with the Asian Longhorned Beetle. No parachute accidents were reported in 482 fire jumps. History was made when Dale Longanecker broke the national fire jump record, when he made his 278th fire jump.

By mid-April 2002, NCSB jumpers saw action in the Southwest and Great Basin. In addition to boosting bases throughout the western U S and Alaska, NCSB had plenty of action at home with 61 fires and 249 fire jumps. In the midst of the fire activity, NCSB hosted the Region 6 rookie jumper training. By the end of the season, NCSB fire and project details took NCSB jumpers to Oregon, Alaska, California, Utah, Colorado, New Mexico, South Carolina, Illinois, New York and Minnesota.

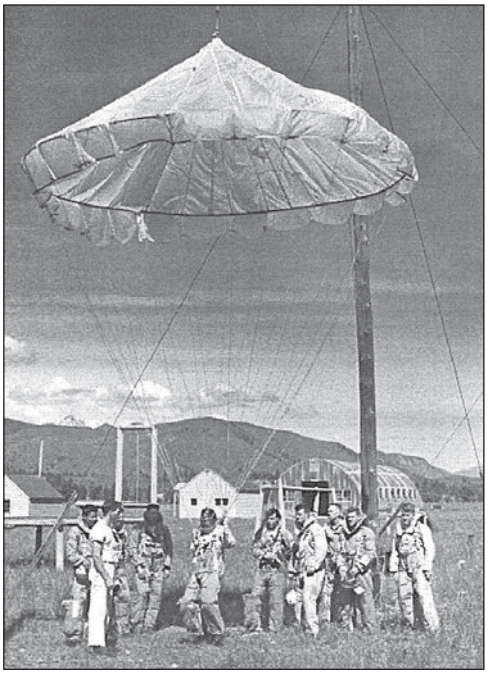
-Bill Moody

NCSB in 2000. Casa 212 ready for fire call



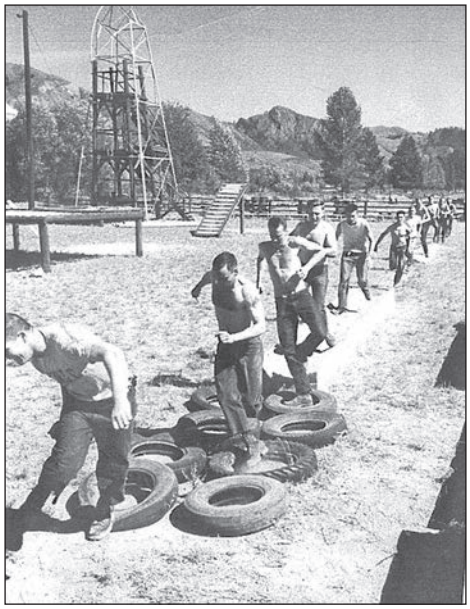
-*USFS*

Outfitted jumper–early 1950s



-*USFS*

Howard Betty instructing parachute manipulation, 1953

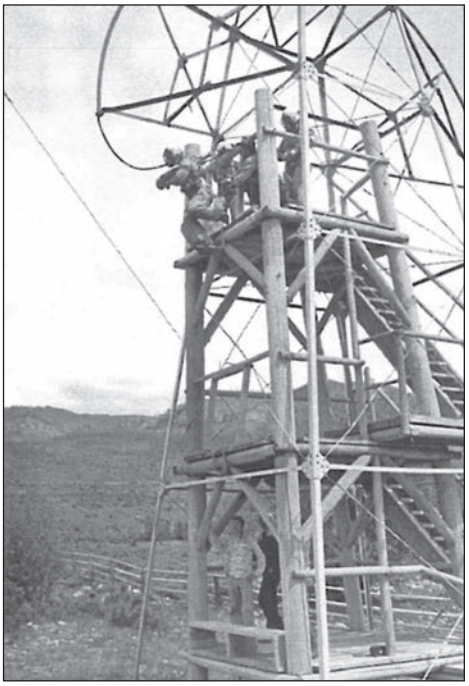


-*USFS*

PT sessions, mid-1960s

-*USFS*

The Torture Rack



-*USFS*

1950-1970s jump tower training

-*USFS*

Current jump tower and letdown tower

-*USFS*

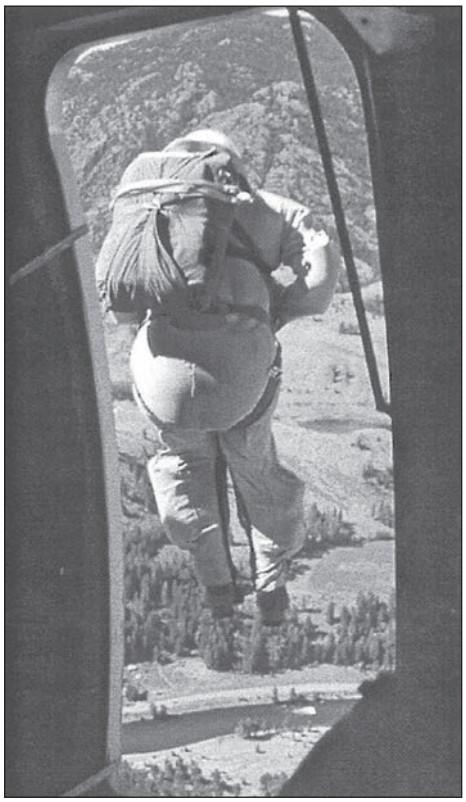
Letdown training

-*USFS*

Jumpers eating in the "best messhall in the west"– national concensus, 1959

-*Bill Moody*

Pioneer Deanne Shulman, McCall Smokejumper Base, first woman in the smokejumper program, pictured with Francis Lufkin

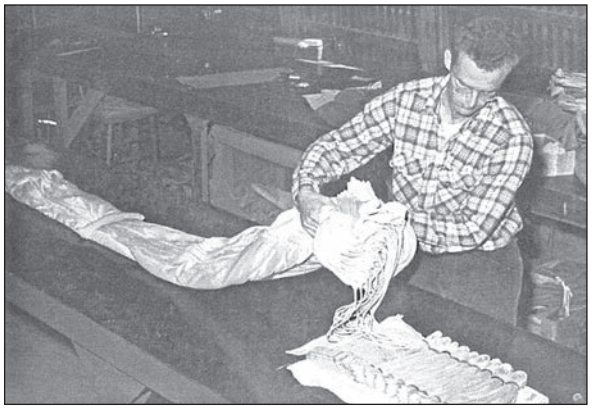


-*Scott Wicklund*

Exit from Casa 212

-*Hank Falcon*

Landing-Castle Pass area-Pasayten Wilderness fire, early 1980s



-*USFS*

(David) Skinny Beals, Paraloft foreman, 1950s-1960s, rigging an FS-2 28-foot main canopy

North Cascades Smokejumper Base Roster

1940 to 2002

Rookie Year or First Year on NSCB Crew

*Denotes base transferred from

1940
Derry, Virgil
Honey, George
Lufkin, Francis
Smith, Glenn

1945
Bartell, Otto
Bristol, Bill
Buller, Walt* (CJ)
Detweiler, Vince
Diller, Ken* (CJ)
Eigsti, Joe
Goering, Bob
Holden, Harold* (MYC)
Kenagy, Earl
King, Howard
Neufeld, Elmer* (CJ)
Penner, Arthur

1946
Allen, Jim
Barlett, Herbert
Beck, Jim
Dent, Charlie
Goss, Roy
Higbee, Art
Kahler, Lee
Larson, Jack
Morris, Orvil
ONeil, Larry
Sanders, Chuck
Tauschev, John

1947
Bartell, Leonard
Beals, David* (MYC)
Buhaly, Joe
Frank, Don
Hanson, Leonard
Hendrickson, Keith
Higbee, Clint
Littell, Wallace* (MSO)
Summerfield, Ed
Weinmann, Hal

1948
Betty, Howard
Campbell, James
Conner, Wilson
Corder, Ralph
Dent, Troy
Eicher, Bill
Fredrick, Herbert
Ferreira, Joe
Hauptner, Ed
Healy, Ralph
Kile, Les
Limeberry, Chas
Linn, Robert
McCauley, Joe
McDevitt, Less
Putnam, James
Schmidt, Carl
Schultz, Robert
Smith, Frank
Werner, Harold
Wood, Gordon

1949
Curran, Don
Graves, Tom
Holtzheimer, Ted
Lloyd, Walter
Morelli, Amold
Privette, Alvan
Rabideau, Jim
Rabideau, Philip
Sullivan, Jerry
Sutherland, Dean

1950
Dibble, Neal
Lince, Jack

1951
Buchert, Wayne
Chapman, Ken
Coody, Gil
Dibble, Danny
Dickie, Charles
Floyd, Spencer
Harris, Richard
Hendrickson, George
Hough, Bob
Hutchinson, Virg
Johnston, Jack
Kruckeberg, Bob
Lucas, Brad
Mays, Ed
Newberry, Bob
Pino, Robert
Snider, Rod
Stevens, Louis
Verbeck, Howard

1952
Crookham, Bill
Gregory, Carl
Harris, Richard
Hebrank, Al
Loudon, Wallace
McAllister, Robert
Meltvedt, Don
Miller, David
Putnam, Chet
Reed, Frank
Wagner, Paul
Wood, Steve

1953
Colbert, Don
Dibble, Steve
Helmer, Gerald
Pattison, Warren
Taipole, Denny
Tsunoda, Stanley
Verbeck, Richard
Wapato, Tim
White, Jim
Ziekle, Clair

1954
Brennan, Don
Crawford, Wayne
Fleming, Bob
Harding, Roger
Hindman, Forest
Johnson, Kay
Kessler, Byron
Limoges, Vincent
Percival, Tony
Pickering, Sterling
Pino, Frank
Roggow, Jim
White, Leron

1955
Bowman, Mike
Eastman, Bill
Honey, Ray
Imes, Virgil
Lawrence, Bob
Northcott, Mel
Speaks, Glen
Trotter, Sherwood
Zander, Rey

1956
Eagan, Jim
Hidu, Herb
lmeson, Norm
Keely, Earl
McCormack, Mike
Neal, Harry
Pell, Bob
Pino, Buck
Zander, Neil

1957
Atterbury, Toby
Benton, Hugh
Carlman, Robert
Casey, Ray
Gray, Leroy
Jessup, Gene
Johnson, Carl
Loney, Ron
Mayfield, Ted
McKay, Jack
Moody, Bill
Schwab, Warren
Morefield, Don
Percival, Roy
Roberts, Ron
Rolph, Don
Ruark, Sylvan
Schuette, Art
Sisler, Ken
Townsend, Richard
Wagner, Howard
Wescott, Jim

1958
Allen, Gray
Baird, Doug
Bemhard, Doug
Daniels, Steve
Gale, Leon
Gibford, Dick
Harnden, Richard
Jaderland, Loren
Kirchner, Sheryl
Lynch, Dan
McCabe, Terry
Monroe, Tom
Rhodes, Steve
Richter, Dennis
Roos, Don
Schaub, Fred
Starkovich, Daryl
Theubet, Jim
Westhoff, Jim
Wright, Jack

1959
Gale, Everet
Jessup, Gerry
Kimball, Earl
Martin, Denny
Pearson, Larry
Pratt, Steve
Rolfs, Don
Satterfield, Burr
Sulinski, Paul
Zasada, John

1960
Bentley, Larry
Casey, Chuck
Cook, Jim
Dearstyne, Paul
Duffy, Don
Harris, Abie
Haugsven, Lyle
Hill, Robbie
Lester, John
Moses, Ed
Newman, Nick
Palmer, Jerald
Primm, Joe
Simons, Dick
Torgerson, Lloyd

1961
Court, Phys
Fort, Mike
Galbraith, Art
Graw, John
Holcomb, Walt
Holtby, Ralph
Moore, Henry
Nielson, Dick
Rhodes, Phil
Rivera, Ray
Royer, Larry
Selby, Bill
Stevenson, Ed
Varner, Orville
Waldron, Larry
Wildman, Dick

1962
Cooper, Fred
Fitzjarrald, Don

Fitzjarrald, Jack
Flint, Larry
Furman, Bill
Gray, Lavern
Hicks, Cecil
Holmes, Robin
Kleinheksel, Russell
MacDonald, Glen
McClellan, Larry
Roundy, Elmo
Taylor, Ken
Thomas, Tom
Wagoner, Roy
Wheeler, Paul
Zutter, Larry

1963

Corum, Ken
Court, Ash
Culbertson, Steve
Decker, Jay
Fitzjanald, Keith
Gordon, John
Henderson, Bob
Hotchkiss, Lehman
Lysek, Joe
McCauley, Pat
McFarland, Don
Tower, Randy

1964

Ahern, Mike
Borg, Ken
Borst, Ron
Byrd, Ron
Domingos, Lester
Hull, Ben
Marcuson, Mike
Taylor, Dave

1965

Buzzard, Baynard
Cockrum, Jeff
Grant, Jim
Krane, Kjell
Percival, Dan
Ransom, Jim
Reynaud, Steve
Vancil, Ken
Wight, Steve

1966

Boesel, Craig
Burt, Gary
Davis, John
Kahl, Kim
Knechtel, John
McWhirter, Bruce
McWhirter, Frank
Nelson, Bill (Titus)
Pratt, Rich
Thornton, Dell

1967

Abrams, John
Burrows, Dan
Detro, Jim
EofI, Fred
Geohry, Mike
Hawley, Harold
Hillyer, Greg
Kemper, Bob
Ktane, Peer
Poulin, Vince
Rouse, Ron
Tabler, Mike
Veitch, Bob

1968

Blackbum, Charlie
Cotner, Harvey
Fenno, Mark
Hale, Chuck
Kosy, Jim
Lewis, Denny
Longanecker, Dean
Rockwell, Craig
Scholten, Ben
Weinert, Larry

1969

Baker, Jim (Dr. & S&R)
Belvill, Tom
Breslin, Dennis
Bumett, Steve
Darling, John
Hensel, Marty
Macy, Mike
Miller, Len (S&R, EMT)
Miller, Bob
Mills, Roy
Sutliff, Steve
Thornton, Darold

1970

Crowell, Chancey
Curtis, Bob
Fleagle, Bill
Fraser, Kirk
Freese, Mark
Gardner, Dwayne
Hyde, Larry
Longanecker, Ernie
Pino, John
Reister, Louis
Soderburg, Mike
Soria, Dale
Williams, Jim

1971

Bolin, Ted
Dammann, Carl
Horey, Mike
Larson, Swede
Lewis, Kenny
Utigard, Mike

1972

Anusewicz, Jack
Bickers, Bill
Bushnell, Jerry
Doran, John
Joiner, Bill
Longley, Larry
Lowden, Will
Perkins, Davis
Ratliff, John
Steele, George

1973

Christen, Paul
Floate, Ed
George, Barry

Kinyon, Bob
Lawson, Murray
Marcott, George
Nemore, Steve* (RAC)
Schonfeld, Eric* (CJ)
Shaw, Craig

1974

Adams, Mike
Burgett, Rich
Christian, Daryl
Lewman, Dave
Michael, Michael
Neely, Ron
Ross, Tim
Sheldon, Ben
Smith, Ray
Stroyan, Jerry
Wilson, Wayne

1975

Boucher, Don
Button, John
Cotner, Dave
Cutler, Pete
Duncan, Scott
Hutson, Mark
Jenne, Tim
Johnson, Mike
Kartevold, Rick
McWade, Greg
Peterson, Cary
Snider, John
Tackman, Jamie
Turner, Mark
Vaughn, John

1976

Brownlee, Bob
Brownlee, Craig
Bryan, Mark
Castellaw, Greg
Cooley, Fred
Juhl, Curt
Klein, Bill
Loomis, Steve
Pease, Bill
Picard, Jon
Ray, Chris
Robinson, Steve

1977

Longanecker, Dale *(RAC)
Risley, Rob * (Yukon)
Wright, Mike

1978

Alban, Jerry
Betty, Ned
Houston, Doug* (RAC)
Pontarolo, Steve
Robinson, Gary
Wise, Ted

1979

Grijalva, Emett * (CJ)
Healam, Chuck
Hinkley, Kirk
King, Tom
Pihl, Don

1980

Henderson, Ray* (MYC)

1981

No rookies

1982 (Volunteers)

Brownlee, Brian
Baker, Patrick
Brown, Gary
Paul, Chris

1983

No rookies

1984

Lund, Keith
Moomaw, Jay
Rivard, Bob
Short, Tim
Williams, Billie
Woosley, Matt

1985

No rookies
Smith, Brent* (RAC, MSO)

1986

Anders, Carlene
Belsby, Daren
Englelhart, Debbie
Fink, Deed
Goff, Brian
Gordon, Dick
Graves, Dave
Hughes, Brad
Montague, John
Ray, Ralph

1987

No rookies

1988

Baker, Steve
Browning, Marty
Clements, Frank
Colbert, Dave
Vinson, Randy
Wiseman, Sam

1989

Myers, Virgil
Rose, Kathleen
Weiche, Ralph

1990

Crook, Shelly
Hipke, Eric
Walton, Todd

1991

Belsby, Brian
Kitzman, Joe
Campbell, Neil
Stebbin, Mike
Wcklund, Scott

1992

Byrd, Tony
Dehart, Roger

Denham, John
Vanhemelrych, Mike

1993

No rookies

1994

No rookies

1995

Gold, Jesse
Little, Rod
Monsanto, Phil

1996

Knapp, J.P.

1997

Acosta, Lisa
Krieger, Bart
Lyons, Mat
Preston, Laeurn

1998

Baraibar, Inaki
Dale, Matt
Russell, Kathleen
Spencer, John

1999

Hill, Stuart
Noe, Michael
Pierce, Sara
Ramos, Jason
Szacik, Matt

2000

Friedman, Simon
Jordett, Jason
Muelbauer, Michael
Palmer, Sam
Taie, Ryan

2001

Desimone, Matt* (RAC)
Floyd, Nan *(RAC)

2002

Galassi, Scott
McCarthy, Charley

(CJ) Cave Junction
(MYC) McCall
(MSO) Missoula
(RAC) Redmond

Pilots & Co-Pilots

(includes Detailers)

King, Harold	1939
Hughes, Jack	1940
Johnson, Dick	1940
Vance, Earl	1940
Moyer, Don	1945-1946
Sproat, Jim	1945
Benesh, Robert	1987
Benesh, Ken	1947-1949
Tranell, Big Foot	1948
Pierce, Monte	Early 1950s
Harrel, Joe	1948
Myler, Red	1950s to 80s
Loney, Jack	1952
Emmons, Harold	1952
Tower, Walley	1953-1959
Cavanaugh, Robert	1958
Buchanan, Buck	1959
Cowan, John	1960-1962
Royce, Dave	1962
Cavin, Ken	1963-1974
Starky, Jim	1969-1974
Conine, Bob	1964-1965
Roberts, Bob	1967
Russell, Dave	1967-1979
Morrell, Ben	1968
Morton, Vic	1968
Thompson, Ernie	1969
Mattson, Larry	1970
Chavre, Dan	1971-1972
Butler, Bill	1973-1974
Smith, Bob	1975-1976
Caryl, Ray	1976-1977
Mentens, Bill	1976
Berry, Ron	1976
Menlove, Mel	1977
Bassett, Dick	1977
Greene, Jim	1977
Lockwood, Bill	1977
Madar, Joe	1978-1979
Hamm, Chuck	1978
Green, Steve	1978
Hunt, Gary	1979
Shaffer, Terry	1979
Glassburn, Hugh	1980-1982
Dearden, Dale	1980-1982
Bardell, Bill	1981-1982
Ratcliff, Bob	1980s
Ownby, Mike	1980s

Johnston, Andy	1990
Hinkle, Ben	1990s
McBride, Kevin	1998-present
McBride, K.T.	
Palmer, Earl Jr.	2000
Hammer, Butch	2002

Support Staff

Morris, Orvil
Keller, Don
Painter, Dee
Imes, Doris
Longnecker Sr., Ernie
Badger, Warren
Eggleston, Glenna
Jenne, Elaine
Spaulding, Carol Lee
Roach, Dorothy
Bryan, Marian
Boesel, Patti
Bushnell, Debbie
Tonseth, Judy
Allen, Anne
Bussler, Jeanette
Sonnichsen, Connie
Dulac, Linda
Perrow, Chrystal

Cooks

Dammann, Effie
Haltzheimer, Zelma
Burgert, Ciiff
Yockey, Gwenie
Lina, Shirley
Kahler, Frances
Morgan, Daisy
Pemberton, Ruby
Lyons, Ruth
Lyons, Truth
Lester, Emmie
Dammann, Jean
Waller, Frankie
Bowers, Catherine
Murphy, Ruth
Woodkey, Evie
Neubert, Donna
McHugh, Doreen

Sewing/Chute Riggers/Repair

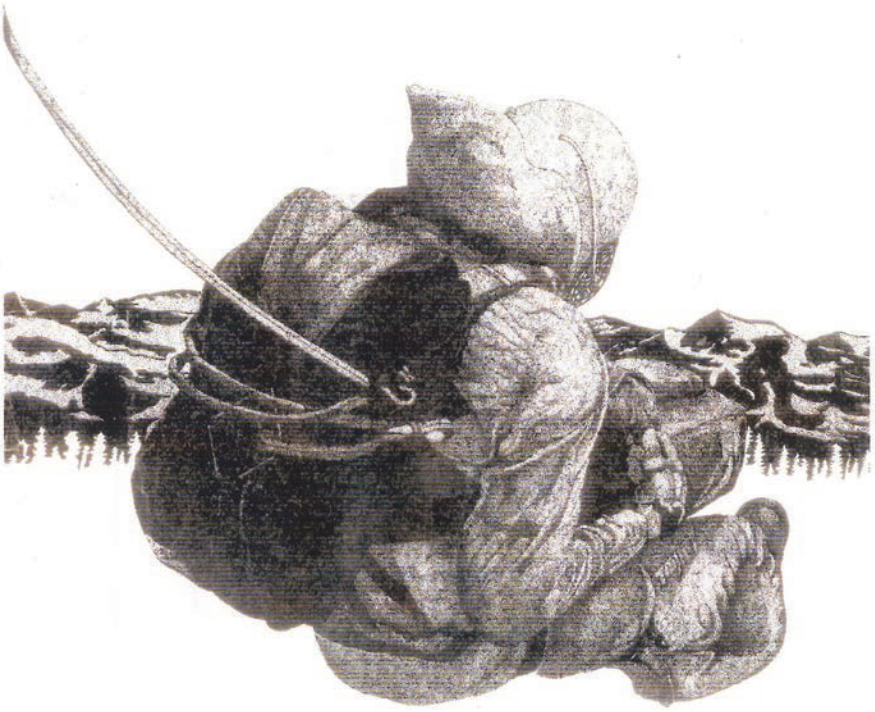
Dick, Stan
Hasse, Shirley
Keller, Deone
Whipple, Alice
Tonseth, Dale

Saw Shack

Hasse, George
Lufkin, Francis

Warehouse

Paul, Clyde
Hadfield, Duey
Brooks, John
Honey, George
Flagg, Charlie
McMeans, Mac
Forsythe, Dave
Acord, Allan
Rowland, Keith



Drawing by Kenneth Perkins

NATIONAL SMOKEJUMPER ASSOCIATION

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