## Diablo Mountain Lookout, Past and Present: Powell Ranger District, Idaho

by Harold W. Keller, Botanical Research Institute of Texas (BRIT)

## Note:

Recent Diablo Lookout volunteer coordinator Bill Moore was a significant contributor to this article, to the point of even being offered "co-authorship", which he graciously declined.

Diablo Mountain Lookout is located in the heart of the Bitterroot Mountains, in the Lochsa-Powell Ranger District of eastern Idaho near the Montana state border, now included as part of the Nez Perce-Clearwater National Forests. It is accessed via a trailhead from Elk Summit Guard Station. This lookout has a storied history, extending back to 1926 and still exists in 2023 as a ground station for observation of forest fires overlooking the Selway-Bitterroot Wilderness Area and the headwaters of the Lochsa Scenic and Wild River Corridor.

This is Lochsa country, famous for place names and landmarks, and is one of the most picturesque, scenic and strikingly beautiful wild places in North America. It is highlighted by the Bitterroot Mountains and Blodgett Pass, Diablo Mountain Lookout, Elk Summit Guard Station, Grave Peak, Powell Ranger District in the Nez Perce-Clearwater National Forests, Selway Bitterroot Wilderness Area, Lewis and Clark Trail, Lolo Divide, Idaho-Montana Border, Highway 12, Lolo Hot Springs, Hoodoo and Big Sand Lakes, among others.

In the 1930s this area was designated the Selway-Bitterroot Primitive Area and was part of the Lolo National Forest as included in articles published by Harold Keller in the LOOKOUT NETWORK, "Lookout and Trail Adventures in Powell Ranger District, Idaho" Part 1 and Part 2, online at http://ffla.org/uploads/3/4/3/2/34327758/lookout\_and\_trail\_adventures\_in\_powell\_ranger\_district\_idaho.pdf.

In the summer of 1957, Keller, then a student from Kansas Wesleyan University, spent the fire season on Diablo Mountain Lookout (Figure 1). He spotted several fires that smokejumpers fought by parachuting from a Ford Trimotor airplane with three engines dispatched from Johnson Flying Service at Missoula, Montana (Figure 2). Smokejumpers (Figure 3) were popularized in a 1952 movie starring Richard Widmark titled "Red Skies of Montana" filmed on location at Missoula, Montana. During this period a number of college and university students were on lookouts in the Powell



Figure 1. Northwesterly panoramic view from Diablo Mountain Lookout in 1957 showing grassy meadows and dense stands of timber covering surrounding areas. Elk herds were often seen grazing in the meadows in early evening hours. Photo by H.W. Keller.



Figure 2. Flying Ford Trimotor. Note propellers on each wing and nose of plane. Photo credit: Image 4352 from Bud Moore's film collection.



Figure 3. Ground based Ford Trimotor with smokejumpers. Photo credit: Mansfield Library, University of Montana, Archives & Special Collections, 93-3866.

Ranger District such as Bear Mountain, and Hidden Peak. Wes Jackson the founder and retired President of the worldfamous Land Institute at Salina, Kansas, spent his honeymoon the summer of 1958 on Rocky Point Lookout, easily reached by vehicle.

Keller's summer of 1958 was spent on a trail crew clearing and repairing trails, fighting fires as a smokechaser, and re-splicing and re-hanging telephone lines in the Elk Summit Guard Station area. Climbing trees resulted in starting his interest in plants and trees, eventually going to the University of Kansas to study the anatomy of prairie cone flowers (genus *Echinacea*) with Professor Dr. Ronald L. McGregor head of the Department of Botany. This led to a professional career and teacher of plant science (botany) at different universities and his association with the Botanical Research Institute of Texas since the early 1990s.

Bill Moore, the son of legendary William R. (Bud) Moore, Head Ranger at Powell Ranger District from 1950 to 1956, is part of the history of Diablo Mountain Lookout. Bill spent two summers staffing nearby Hidden Peak Lookout in 1962 and 1963. Jack Puckett served as Head Ranger of Powell Ranger District from 1957 to 1963, hiring Bill Moore and David Ellen in 1962, the latter staffing Diablo Mountain Lookout. These two were interviewed for their jobs by Jack Puckett with one sentence "What lookout do you guys want?" Bill selected Hidden Peak since it was the most remote lookout in Powell at that time. This brief interview and subsequent lookout service started a love affair with backcountry lookouts that persists in both men to this day. Jack Puckett still remains a longtime friend. This led to Bill Moore's long association with Diablo Mountain Lookout as a lookout coordinator preparing operational guidelines for lookout use.

Diablo Mountain Lookout, an L-4 cabin in the 1950s, was eventually burned and replaced in 1965 with a standard R-6 flat top lookout, measuring 14.5 feet square inside and sitting on a 10-foot-high blockhouse. Conventional construction commonly in use at that time consisted of single pane windows and non-insulated wooden walls. The old time #9 grounded telephone lines were not in service anymore and a portable radio sat on a base in a nook of the Alidade cabinet that the old crank telephone used to occupy. A shelf of batteries was located below the Alidade stand and one set could typically make it through the summer. The radio could be taken off of its base and it had a smaller portable battery that could be carried in a pack. Subsequently that radio was replaced by an Automatic Repeater radio powered by a solar panel with a bank of Gel Cell batteries for nighttime and cloudy day use.

Today the lookout uses a small hand-held radio for Diablo-specific traffic and the repeater can be used by all in the area that need a high remote radio to use. Diablo Mountain Lookout is a critical repeater location for backcountry communication, and if needed, can reach longer distances. Also, the lookout can use it in conjunction with the small hand-held radio. While the original repeaters required the lookout to manually turn the repeater on and off the present-day repeater is totally automatic and keeps the communication network going in the upper Lochsa country even when the lookout is not staffed. These repeaters are located on mountain tops or lookouts.

Centered in the lookout cabin is the Osborne Fire finder (aka Alidade) to accurately locate smokes (Figure 4). The surrounding lookout interior has a bed, cabinets for groceries, table, wood stove and gas range set against the walls to allow unfettered access to the Alidade. A small propane refrigerator is located down in the blockhouse.

Diablo Mountain Lookout was staffed for many years but eventually was put in standby status. It still housed the repeater radio but it was no longer used for fire detection. The next to the last full time person staffing Diablo was a manyvear veteran, Donna Bonzagni. Her last lookout season was 1978 with 1979 its last year of full-time scheduled operation. It sat for many years staffed only when there were a lot of fires in its seen area and then typically for short sessions. Donna would volunteer for most of those sessions.

Sarah Walker's photograph (Figure 5) taken August 30, 2019, standing northwest of the lookout and looking toward the southeast, highlights Diablo Mountain Lookout and how it looks today after being parged. Geo-reference coordinates mark the lookout location as T34N - R15E -SW 1/4 of SW1/4 S8 at an elevation of 7461 feet. It is still one of four active lookouts in the Powell Ranger District now operated from July 1 to September 30, in contrast to HWK's stay in 1957 that began in early July and ended in early September in time to return to college.

Diablo Mountain Lookout's seen area is shared by portions of other lookout areas and by communicating with nearby lookouts a fix with a cross azimuth gives an accurate fire location. Fires are reported to Grangeville Interagency Dispatch in Grangeville, Idaho. Training sessions are held at Powell Ranger District and staff provide updates on use of radios, fire reporting procedures, communication with Grangeville Dispatch, lookout history, and other topics of interest to visitors going to the lookout. Staff from the National Weather Service office in Missoula, Montana come to these training sessions to provide continuing education about fire weather, clouds, red flag alerts and predictions for the operating fire season.

Bill Moore served as a coordinator for a volunteer group of about 16 that currently operates Diablo Mountain Lookout during the summer fire season (Figure 6). His instructional training sessions include handouts that explain operational procedures while spotting fires and living for prolonged periods of time on the lookout. While unofficial these documents guide operators in the use of lookout equipment and amenities available for a summer work environment.

Figure 4. Interior view of Diablo Mountain Lookout today features Osborne Fire Finder floor center with table and cabinets around the outer

Figure 5. Exterior view of Diablo Mountain Lookout. Photo by Sarah Walker.

One document entitled "Diablo in a Nutshell" describes





Figure 6. Diablo Mountain Lookout photo by Bill Moore taken September 24, 2012 standing on the west side looking east. Bill's daughter Kris at base with backpack after hike.

a typical day on Diablo Mountain Lookout from sunrise to sunset. Staffing hours are from 08:30 AM until 5:00 PM and involve in part maintaining radio usage, weather reports (rainfall and relative humidity), and safety issues that always follow a safety-first emphasis, especially since the lookout is a ground station on a cliff precipice. The drop off on the north side is a 500foot fall (Figure 7). Stormy nights with



Figure 7. Diablo Mountain Lookout view from trail below. Note lofty rocky outcrop where lookout is located. Photo by Bill Moore.

active lightning strikes add an element of danger even though the lookout is grounded with copper wires. Other Powell lookouts likely to call are Bear Mountain (the lead lookout), Rocky Point, and Beaver Ridge. There is an operator's handbook started in 2012 and "Diablo Specific" instructional sheets as well as a "Fireman's Guide" that has a section on lookout duties. Some of the Diablo Specific sheets include the following: Bendix King Legacy Radio Check; Diablo Rules of God; Diablo Tracking Radio Procedures; Diablo Changeover Procedures; Diablo Closing Instructions; Diablo Morning Fire Weather Log; Diablo Lookout Operating Instructions; Active Watch List; Diablo Specific Radio Procedures; Nez-Clearwater Weather & Resource Lineup.

There is a lot to do on a lookout and this includes repairs from time to time that result from animals such as rats, chipmunks, and hoary marmots that live in rocky areas around the lookout (Figures 8, 9, 10), chewing on



Figure 8. Hoary marmot sunning on rocky ledge below Diablo Mountain Lookout. Photo by H.W. Keller in 1957.



Figure 9. Hoary marmot, a huge bulky ground squirrel (Marmota caligata), on catwalk chewing Diablo Mountain Lookout siding, photo by Steve Kalling.



Figure 10. Work detail fixing animal damage to siding around catwalk in 2015 on Diablo Mountain Lookout. Photo by Bill Moore.

wooden structures such as siding. Recent construction projects have added a new out-house (Figure 11).

Additional lookout activities and duties include staving up all night during stormv weather recording lightning strikes and scanning for next morning



smokes the Figure 11. Outhouse recently constructed from a kit packed in to Diablo Mountain Lookout. morning Photo by Bill Moore.

and all day when the higher temperatures stoke the fire in dead snags or in needle litter on the forest floor. Onsite lookout activity involved a water-haul by human back pack from a spring about one mile down trail until it stops flowing later in summer.

Wilderness fire policies have changed over time. The big burn during the fire season of 1910 resulted in the United States Forest Service implementing fire suppression as its key function. Over the ensuing years until the 1960's many lookouts were built (approximately 20 in the Powell Ranger District) and actively staffed with lookout personnel during the summer fire season to detect, suppress, and control fires effectively as a team effort with smokejumpers and ground crew smokechasers. These fire suppression policies resulted in an unnatural fuel loading buildup due to an effective philosophy of observation, location, and extinguish every fire as soon as possible.

Since Diablo Mountain Lookout's seen area is almost all in the Selway Bitterroot Wilderness (Figure 12), fire starts are analyzed with the Wilderness Act management goals in mind. All fires are subject to an analysis of threat to values, time of year, overall seasonal fuel conditions, and in most cases, this leads to management with limited human interference, consistent with Wilderness values. Around the clock observation by lookout observers on the mountains helps fire managers hold things together. With the exception of a rare human-caused fire, the vast majority of Diablo's fires are lightningcaused. Human-caused fires are not "natural" considered and are suppressed immediately.

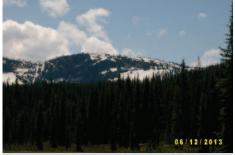


Figure 12. Diablo Mountain Lookout as seen from Salt Meadows on June 7, 2012 with snow still at higher elevations. Photo by Bill Moore.

How will landscapes in this area of the Powell Ranger District change in future years? Only time will tell!

## ACKNOWLEDGMENTS

In addition to Bill Moore providing details of current activities, construction of present-day Diablo Mountain Lookout, lookout operational guidelines, and photographs, Fire Managers provided more details about current firefighting operations. Our thanks go to Sarah Walker who provided details of her activities on Diablo Mountain Lookout.