The Hebgen Lake Quake

Near midnight, August 17, 1959, in the quiet of a soft summer night, Mother Earth chose to reshape her mountains in violent response to deep-seated stresses no longer bearable. An eight-State area felt the first heavy jolt of the Hebgen Lake Earthquake, estimated at 7.9 on the Richter Scale by U.C. Berkeley Seismologist Charles Richter. The heaviest damage and most spectacular impact of the earthquake occurred in southwestern Montana within the Gallatin National Forest.

Hundreds of vacationers were asleep in tents, camps, trailers, and lodges near Hebgen Lake and along the Madison River. Forest Service campgrounds were crowded long before dark; other campers simply pulled off the highway and set up their own camps near the river. Downstream from the Hebgen dam, State Highway 287 and the Madison River occupied a narrow valley floor between steep, towering canyon walls. This particular sector of the canyon, from the dam downstream to the mouth, had always been a favorite camping site, and the Forest Service had constructed and maintained campgrounds along the highway.

Following the main shock of the earthquake, escape routes were blocked. Most of the campers were asleep when the earthquake struck. Within half a minute after the main tremor a major landslide occurred in the Madison River Canyon. The slide, about 5.5 miles downstream from the dam, buried an area directly west of the Rock Creek campground. Slip-outs in the highway skirtsing Hebgen Lake effectively stopped escape in that direction. Hours of darkness and ordeal faced most of the trapped vacationers.

As the debris of the slide crossed the valley, it almost instantly displaced the Madison River. This sudden change, like dropping a flat rock in a shallow gutter of water but infinitely more powerful and destructive, caused water to surge both up and down the canyon. Tents and vehicles in the area were crushed and swept aside and debris scattered far and wide. Within 6.5 hours, the water impounded behind the slide had engulfed the cars left in the campground. In all, 9 people were known dead as a result of this slide and many more were missing, presumed buried beneath it.

One of the more tragic incidents involved the F. R. Bennett family of Coeur d’Alene, Idaho. Mr. and Mrs. Bennett and their four children, en route to Yellowstone National Park, reached the western end of the Madison River Canyon late in the afternoon of August 17 and decided to spend the night there. Mr. and Mrs. Bennett occupied their house trailer, while the children slept in bedrolls nearby. The Bennetts were awakened by the jiggling of the trailer and wondered what had caused it. Some time later, Mrs. Bennett recalls, she heard a tremendous roar. She and her husband, alarmed, left the trailer to check on the children. Suddenly they were struck by a violent blast of air. Mrs. Bennett saw her husband grasp a tree
FROM THE PRESIDENT
Gary G. Brown

You are aware, 2005 is the 100th anniversary of the USDA Forest Service. Activities are being planned to commemorate this important happening. Examples are the Folk Life Festival on the National Capitol Mall sponsored by the Smithsonian, the National Forest Retirees Reunion in Portland, Oregon, and activities generated by the Washington Office of the Forest Service’s New Century of Service Celebration. This Celebration is “to highlight and share the organizational excellence, change, and Forest Service contributions to the American and worldwide landscape”. All of these activities will take place in 2005, and there will likely be many others around the country.

Every year that goes by, no, every day that goes by, a part of the history and culture that was a part of the Forest Service is lost. How can we forget that the Forest Service has played a central role in the protection and management of forests and range-lands in the United States and has influenced resource management in many countries of the world? Also the lives of nearly all Americans have been influenced by the National Forests or by products derived from National Forests. The history of the Forest Service is a part of our American heritage. It must not be lost.

The Museum’s Board of Directors has chosen to commemorate this 100-year anniversary as well. Last February the Board approved a concept to build a larger, more permanent Museum building and attendant infrastructure on site, and to dedicate this new facility during 2005. The financial campaign is being developed. You will be hearing more about this effort in the not too distant future.

From The Executive Director
Frank McKinney

On the 28th of October, Board Member Lorin Hearst and I took a trip to the location of the Bungalow Ranger Station in the Clearwater National Forest in Idaho, to satisfy our curiosity about the original location of our beloved Ranger’s Residence. Most of you will remember that the Bungalow Ranger Station’s Ranger Residence has been moved to Missoula and restored by the NMFSH.

From Missoula it was about a 375 mile round trip through some very beautiful country. The first snows of the season were beginning to settle on the ground. We drove through about 4 inches of snow in the higher, more rugged locations. Lorin had grown up in the area and knew the route over Forest Service roads very well. Lorin told me that the road we were traveling was a very busy route until the 1980s with logging trucks traveling at regular intervals. He pointed out the location of an old logging camp, no longer standing, where one could stop for coffee. There was also an old sawmill which had been removed years ago, the only remnant being the mill pond. There were old mining claims and road sidings where logs were loaded onto trucks.

The thing that struck me about the area was that it looked as though none of this had ever occurred there. Sure, you could see an occasional abandoned road. You could see the areas that had been graded for construction of buildings, roads and parking areas. You could see logged areas that showed great regeneration. In my lay opinion, for an area that had been intensely logged in the mid 20th century, the recovery was wonderful. I can’t help but think of how, over time, nature can do wonderful things to heal itself. I’m sure that much of this recovery was due to the work of the USDA Forest Service and professional foresters from the private lumber companies—back to the trip.

We arrived at the old Bungalow Station site at about noon. The place was deserted. The buildings were gone and the location of the residence noted with an old interpretive sign. It looked as though the area was used as a campground but there were no campers since it was Monday, the weather was turning to winter and the hunting season was all but finished in Idaho.

The location of the old Station struck me as dramatic and isolated. Orogrande Creek tumbles out of the mountains to the south. And the North Fork of the Clearwater flows to the west with a large sand beach on the opposite side of the river, downstream about 100 yards. The one thing that distracts from the sense of isolation is the modern bridge across...
for support; then as his feet were swept out from beneath him, he was strung out "like a flag" for a moment before his hold was broken and he was blown away. Before Mrs. Bennett lost consciousness, she recalls seeing one of her children blown past her, and a car being tumbled along by the air blast. Philip Bennett, her son, was buffeted by the wind and washed downstream by a wave of water. Although his leg was broken, Philip managed to crawl into a clump of trees, where he burrowed into the mud for warmth and awaited daybreak. Mrs. Bennett and Philip, the only survivors, were rescued early the next morning and taken to the hospital at Ennis, Montana.

About 38 million cubic yards of rock slid into the canyon from the south valley wall. The flank of a mountain, whose crest was about 1,300 feet above the river floor, broke loose, and the entire mass moved across the canyon as a sheet. When the slide came to rest, its surface was still covered by soil and trees, and the various rock types were arranged as they had been on the mountainside.

Communication lines were out. First reports of the disaster came from a "ham" radio operator in badly damaged West Yellowstone. He had little knowledge of what had happened in the Madison Canyon. All that was known for sure was that there was chaos; there was a threat of flood; and there were trapped people desperately in need of help.

Help was on the way before dawn. Rescue units from many agencies in Idaho and Montana were on the move. At dawn a plane made a reconnaissance flight. Forest Service smokejumpers parachuted into the canyon to give first aid and to set up communications. Men on foot, on horseback, and in helicopters moved in to give assistance to survivors. Among the refugees themselves there were many outstanding acts of brotherhood and mutual help. Rescue workers treated the injured and evacuated them to nearby towns and ranches. Other volunteers provided food and shelter. By evening, bulldozer roads had been built around highway slip-outs; the immediate emergency was over, and all who wished to leave were able to get out of the canyon.

Some 34 Federal, State, county, and local agencies and organizations participated in the emergency work immediately following the earthquake. Neighboring States and Canadian Provinces offered further assistance. The search and rescue efforts of all groups, coordinated by Forest Service officers, continued until there could be no doubt that anyone was still stranded or lost.

Over the next few days and weeks, water flowing down the Madison River and over Hebgen Lake Dam was slowly rising behind the slide. The U.S. Forest Service and the U.S. Army Corps of Engineers dug a spillway through the slide to prevent flooding downstream due to the possible catastrophic failure of the natural dam created by the slide. However, even with the spillway, a new lake was formed behind the slide, "Earthquake Lake."

The quake also shifted Hebgen Lake several feet to the north leaving the south side of the lake high and dry and flooding areas on the north side.

A year later, on August 17, 1960, the Madison River Canyon Earthquake Area was dedicated by former Chief of the Forest Service, Dr. Richard E. McArdle, "in memory of the events which took place here...as a dramatic example of earth-shaping forces ...[and] for all its values...its resources, its geologic history, and its deep human meanings." Montana's Governor J. Hugo Aronson unveiled a bronze plaque dedicated to the memory of the 28 men, women, and children whose lives were lost as a result of the earthquake.

From the Museum’s Collection

I am putting this picture in the newsletter because we need of some good stories associated with it. This is a cotton muslin bag or sack about 9.5 inches wide and 17 inches in length

This object came from the Don Nelson Sr. Collection at the National Museum of Forest Service History. Many of you may remember these during your fire fighting days with the Forest Service. Let’s hear from you about the contents, the quality of the food, where they came from, manufacturer etc., etc. and any other interesting or funny stories associated with these rations. Your comments will be much appreciated.
Every non-profit organization needs for many things to help keep the operation moving forward. This little section of the newsletter is to let the membership know of items we need. Our hope is that members will see this list and make monetary donations toward these specific needs. Things we need this month:

5 horse or better lawn mower………….$300.00
String trimmer…………………………$150.00
Various hand tools for work around the Collections Storage building and the Bungalow…. $150.00

Thanks so much for your help.
Plains Shelterbelt Project Revisited

Since the printing of the August Newsletter, we have received additional information on the Plains Shelterbelt Project of the 1930s. Don Nelson Jr. of Florence, MT has donated his father’s files. Don Nelson Sr. worked as a Junior Forester in the Nebraska Office of the Plains Shelterbelt Project.

When going through these files you find that there were two key points to making the project a success. The first was the science of the project. Soil surveys were undertaken. The Forest Service also had to find out what combinations of trees were suited for the varying soil types and moisture levels.

The other was the negotiations with land owners. H.M. Goldberg, presumably from the Texas office of the Shelterbelt Project, sums up the importance of negotiations and the tough job in the following excerpt from the “Plains Forester,” the official newsletter of the FS Shelterbelt project dated February, 1939.

“The Project itself--planting shelterbelts--is interesting. The most interesting phase, however, is not the planting itself. To me, the negotiators and their work sound the keynote of the whole Project. I have had very little opportunity to see the actual negotiation in progress, yet my talks with the men in the field and in the Wichita Falls office have stirred in me a keen interest and appreciation of their work.

I realize that the success or failure of the negotiators may mean the success or failure of the Project, although it was not so much this that impressed me as the equipment these men had to work with. Even with four years of planted belts behind them with a fair modicum of success, here was a group of young men out to sell a gift of trees to individuals who insisted on looking a gift horse in the mouth. Instead of owners of the small tracts common farther north to contact, the negotiators here have to contact owners of a half-section or several sections of land where, in at least an equal number of cases, the land is cropped by a tenant who as a rule cares little about the benefits to be derived from a shelterbelt. After all, they reason, a year or two may find them somewhere else, so why cultivate and protect a patch of trees from which someone else may benefit.”

Don W. Nelson, USDA FS Junior Ranger with the Plains Shelterbelt Project. Texas, 1937. From the NMFSH Collection.

A Shelterbelt Nursery in Nebraska

Memorial Memberships

For several years the National Museum of Forest Service History has been offering what we have called “Memorial Memberships” for former employees of the USFS or those who have helped with the mission of the FS and are now deceased.

The Board of the NMFSH has changed the name and criteria for listing on this Memorial. Now, for a one-time donation of $100 or more, the National Museum of Forest Service History (NMFSH) offers a special Forest Service History Memorial for living and deceased persons. Current, former or retired employees, individuals or groups of people who have contributed to the mission of the Forest Service are eligible. A memorial grove has been planted on the museum grounds honoring everyone accepted for the Memorial. People are recognized in a memorial book and on the Museum’s web site rather than having names on individual trees in the memorial grove. Nominations are subject to approval by the NMFSH.

With this change we have combined what used to be our “Memorial Memberships” and our “Honor Roll.” See page six for the new updated application for this Memorial. When sending Forest Service History Memorials, please use the application or provide biographical information with the donation. Please contact the NMFSH if you have any questions.
Forest Service History Memorial Nomination

For a one-time donation of $100 or more, the National Museum of Forest Service History (NMFSH) offers a special *Forest Service History Memorial* for living and deceased persons. Current, former or retired employees, individuals or groups of people who have contributed to the mission of the Forest Service are eligible. A memorial grove has been planted on the museum grounds honoring everyone accepted for the *Forest Service History Memorial*. People are recognized in a memorial book and on the Museum’s web site rather than having names on individual trees in the memorial grove. Nominations are subject to approval by the NMFSH. Please contact the NMFSH if you have any questions.

Please provide the following information and add additional sheets if needed:

**Person or Group to be Honored**

Name:

Date of Birth:

Date of Death:

**Date of Nomination:**

_________________

**Check Category**

☐ Former/Current Forest Service Employee ☐ Volunteer/Partner/Cooperator ☐ Group

**Brief Biography**

Please include those items, or events, that illustrate the person's connection to the Forest Service.

**Places and/or units or projects where person served:**

Ranger Districts, National Forests, Regions, or Stations as appropriate. When were they there?

**Please enclose Photo(s) of Nominee if available:**

Please provide identification with date and location

**Name of person completing this nomination form:**

Name: __________________ Address: __________________ City: ______ State: ______ ZIP: ______

Telephone: __________________ Email: __________________

**Donation enclosed ($100 or more):** $___________

The NMFSH is a 501(c)(3) nonprofit corporation and all donations are deductible from the donor's federally taxable income as described in the Internal Revenue Code.

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Membership Application
Fill out, detach, and mail to: National Museum of Forest Service History, P.O. Box 2772
Missoula, MT 59806-2772

Name: __Mr.__Ms.__Dr._______________________________ Address: ________________________________________

City/State/Zip: ____________________________________ Daytime Ph.: __________________

E-mail: ____________________ □ New □ Renewal

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Profession*:__________________ Age*:______________________

Income Range*: $__________/yr. Educational level*:____________________

*These are optional

The Company Store

Get your NMFSH merchandise here!

“Guardian of the Headwaters” by Monte Dolack: A print dedicated to the men and women of the Forest Service on the 100th Anniversary of the USDA Forest Service. $30.00+$6 S&H unsigned, $100.00+$6 S&H signed and numbered, 50¢ for postcards.

NMFSH Cap: White w/ forest green bill and NMFSN logo, or solid green w/ white logo, cotton, adjustable, $12 ppd.

NMFSH Sweatshirt: Stylish, heavyweight, cotton/polyester sweatshirt. Forest green with cream logo. (L&XL only) $25 ppd.

NMFSH Tee: Comfortable, cotton/polyester white tee with logo in green. (L&XL only) $12 ppd.

They Hired Out to be Tough Tee: Cotton/polyester, white with green graphics. (L&XL only) $12 ppd.


“Conservation Motifs” Notecards: same design as the poster (with envelope) $1 each ppd.

Send check or money order only to: National Museum of Forest Service History
P.O. Box 2772
Missoula, MT 59806-2772

Please allow 3 weeks for delivery of all items
NMFSH Annual Reports are available upon request by calling 406-829-1763, e-mailing at nationalforest@montana.com or writing us at P.O. Box 2772, Missoula, MT 59806-2772.