

LESSONS FROM LARGER FIRES ON THE SISKIYOU

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A 3-day electrical storm in July 1938 started more than 60 fires on the Siskiyou—an all-time high for this forest for concentration of lightning fires in time. The spring had been exceptionally dry; winds were ruinous; the country was rough; and there was a serious lack of roads. Before the resulting "war" was over the 5 fires of more than 300 acres in size had burned over 48,000 acres—22 percent of the total area lost on all the national forests. The author was in charge of the largest of these 5 fires—the Chetco or Cedar Camp fire. Inspectors, who usually find many things wrong, could find no serious fault with his management of the job. But the fact remains that it took 26 days to corral the fire, which finally grew to more than 34,000 acres. Such fires afford priceless opportunities to learn the art of fire-suppression management.

Several important lessons were learned on the five large fires which occurred on the Siskiyou National Forest in the 1938 season:

1. *Regional office fire plan.*—These fires gave us a new conception of what constitutes "the worst probable situation," and the fire-suppression plan will require expansion to take care of another such occurrence, with particular reference to listing increased numbers of:

(a) *Pack and saddle horses.*—I believe it would be desirable for the regional office fire plan to include a list of pack stock available within the region, since it is not possible to obtain locally the number required for a situation such as developed on the Siskiyou last season.

(b) *Airplane facilities for transport purposes.*—Considerable delay was experienced in obtaining airplanes suitable for dropping supplies, and this indicates the need for more careful planning for and listing of this type of transportation.

(c) *S O S units.*—There is an apparent need for more S O S and scouting units. It would probably be best to utilize the regional office personnel for these units, since they are most likely to be available when needed. Also, in order to have men experienced in at least the key positions, suggest utilizing present S O S personnel in key positions and complete with "pick-ups" selected at time of fire from best available source. Experience for key positions is essential.

2. *We need to give more attention to the physical fitness of our fire-line overhead* when selecting and listing men in our fire plans for fire-fighting work. This is particularly true of C. C. C. foremen in charge of C. C. C. crews. Many examples could be cited on the Chetco and Siskiyou Fork fires where disability of overhead, such as weak heart, recent operations, or previous injuries of permanent nature seriously handicapped the organization of suppression crews. But probably more important is the irreparable damage to one's health which may result from the strenuous conditions required by this type of work. It is realized that the requirements of the C. C. C. camp work projects and restrictions limiting selection of C. C. C. foremen often result in a compromise detrimental to fire suppression.

3. *Leadership.*—Whenever choice permits, selection of foremen for fire-fighting work, especially C. C. C. foremen, should be based on their ability to provide inspired leadership, loyal to the management. Again, examples could be cited on the Lone Tree, Chetco, and Siskiyou

Fork fires of C. C. C. boys striking and walking off the job, principally because of poor leadership.

4. *Burning out.*—There is need for emphasis on technique of burning out fire line as work progresses, so as to eliminate the necessity for excessive clearing and width of trench.

5. *Feeding men.*—Provisioning fire fighters on the Chetco fire was not satisfactory, and suggested the need for one agency to handle all rationing. Provisioning fire fighters involves many problems characteristic only of this type of work, such as providing rations best suited to transportation, especially by pack horse and airplane, and the preparation of large quantities of tasty, wholesome food, in many cases over open fires and under adverse sanitary conditions, which requires experienced cooks seldom obtainable from a C. C. C. kitchen. Logically, since the Forest Service is responsible for the control of the fire, it should have complete control of all contributing functions, of which the provision of supplies is one of the most important.

6. *Civilian fire fighters for back country.*—Increased requirements and restrictions, dual administration, and inexperience of Army officers assigned to fire camps make employment of C. C. C. inefficient and infeasible on fires in the back country requiring pack horse or airplane transportation, and a larger number of civilian fire fighters must be depended upon to supply the necessary manpower.

7. *Camp management experience.*—Employment of large numbers of FF men requires experienced fire-line-camp managers trained in all phases of the job. The functioning of Army officers in C. C. C. fire camps has reduced the opportunity for Forest Service employees to gain experience in handling food supplies and kitchen set-up, and our efficiency has been reduced accordingly.

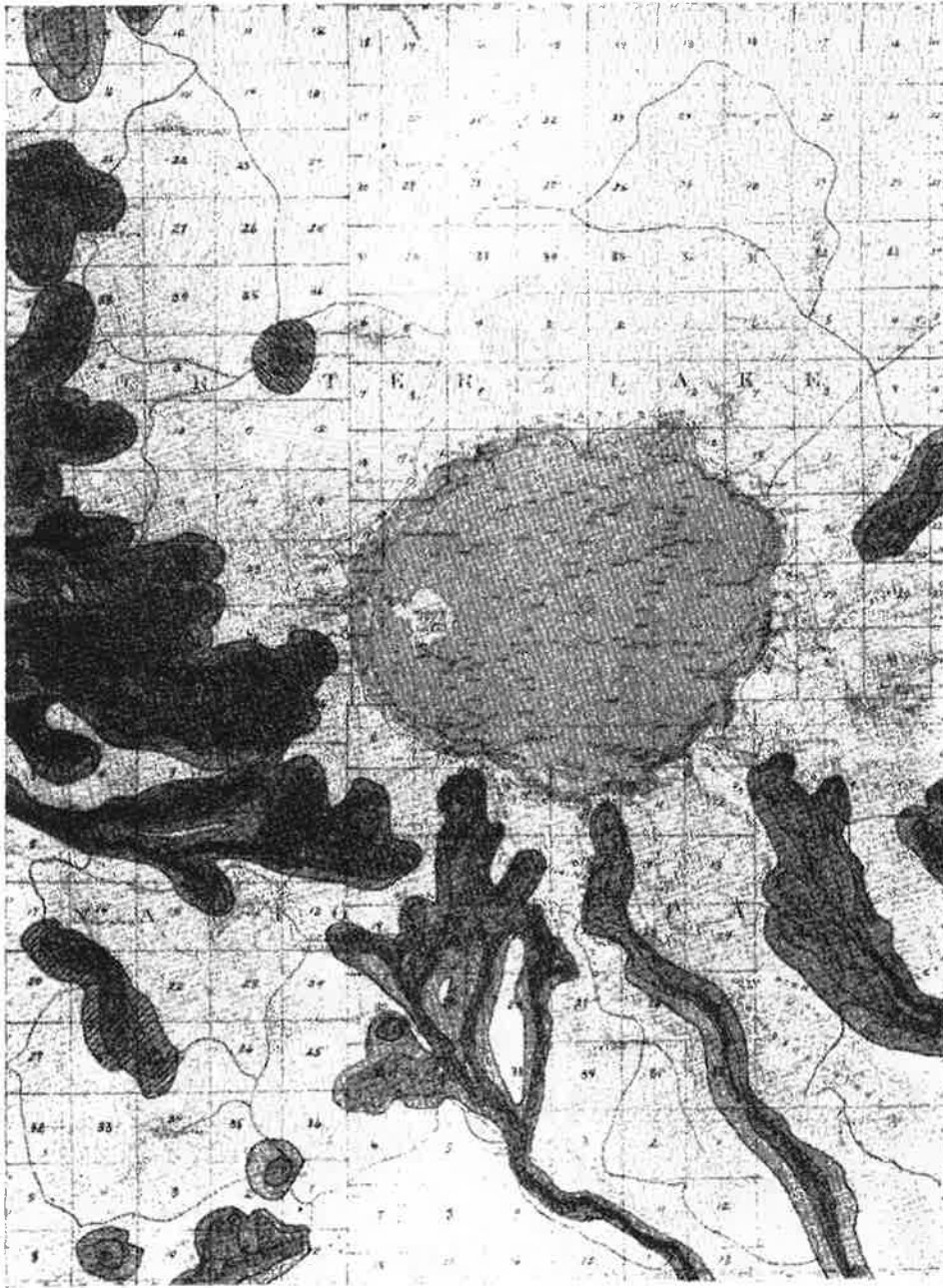
8. *Aerial troubles.*—New problems arose in connection with airplane transportation involving organization to meet the needs for large scale operations: Preparing chutes, packing loads, weighing and listing of contents, transportation of loads to landing fields, loading and preparation of load lists, dropping and retrieving loads, tabulating damages, and assembling chutes for return to landing field.

Dense smoke and fog over the landing and dropping fields proved a serious handicap to airplane transportation, and indicated the need for research to find some dependable device for locating the landing and dropping fields when such conditions prevail. Suggestions advanced so far include use of radio to provide communication between pilot and crew located at dropping field, operating a radio beam by use of a portable storage battery located at the dropping field, and the casting of a light beam from a semispherically shaped mirror located at the field.

9. *Need for "40-man crew."*—In rough and inaccessible areas, there is an apparent need for trained crews of physically supermen capable of sustaining themselves on the fire line for periods of several days with a minimum of S O S. Two methods offer possibilities for securing these crews. They could be hired in advance of the fire season and employed on construction work in the above-mentioned areas; or they could be hired when the need arose, in which case it would be necessary to pay a much higher rate to obtain men meeting the requirements.

Dependable airplane service would materially increase the possibilities of maintaining a larger number of fire fighters on the line continually, by making it possible to deliver cooked food and lunches to them, thus eliminating the fatigue factor of hiking to and from camp.

The preparation of the map was not only interesting, but most helpful in formulating fire-protection plans. It will, no doubt, prove a valuable complement of the fire-protection data now available.



Topographic map showing pumper data. The inner darker area is located within reach of one pumper, the outer darker area can be reached with two pumpers operating in tandem. The cross-hatched areas are located within reach of water supplies which are not dependable for pump operations throughout the fire season.