

A Forester in the National Park Service

By W. H. HORNING

Professor of Forestry, Iowa State College, on leave of absence

WHEN a very unexpected opportunity to join the National Park Service presented itself I was at first inclined to reject it with scant consideration but the lure of the wilderness was strong. Recurring visions of high mountains, verdant forests and camping out under the stars held an irresistible appeal. Also, an unusually annoying lot of final exam papers were still cluttering up my desk; there was a very large question mark in my mind as to why I had ever undertaken to become a college professor; and it seemed possible that the students were puzzled over the same question. Finally, being of a very sympathetic nature and wishing to give the students a break, I secured a leave of absence from the college and set out to get a fresh point of view and material for some new yarns to spin at the Fall Campfire.

No doubt an exposition giving the low-down of some of the inner workings of a governmental organization such as the National Park Service would be of interest to undergraduate foresters who are faced with the problem of finding employment in a field for which their college training has fitted them. Unfortunately a year is too short a time in which to become sufficiently acquainted with the workings of such a far flung organization to permit the formulation of wholly reliable opinions, so this discussion will have to be limited to certain features which have come within my experience.

THE function of a forester in the national parks is normally restricted very largely to protection activities. This may include, not only protection from fire, insects and disease, but also, protection from unwise or excessive use of certain areas by man. The forester also finds himself engaged in type mapping and sample plot studies to determine what changes are occurring in the forest or other vegetative cover types. In

some of the more recently created parks in the eastern states there are large areas where the forest conditions are very abnormal as a result of past misuse, and it is desired to restore natural conditions as rapidly as possible. In some cases this involves the establishment of nurseries for the growing of planting stock of desired trees and plants for use in various kinds of plantings. This, too, is in the natural field of the forester.

My own work with the Park Service was supposed to be that of fire control in national parks east of the Mississippi River. It was thought that in order to function properly I would have to visit the various park areas and become acquainted with the conditions which I would be expected to deal with. The first area visited was the Great Smoky Mountains National Park, because of its size and the importance of its fire control problems.

THE Great Smokies are located in the states of North Carolina and Tennessee. This is one of the most beautiful mountain regions of the east and has a remarkably rich flora and fauna and for these reasons is especially interesting to the forester, the botanist, the biologist, and the landscape architect. Several weeks were spent there in making a detailed study of the protection organization, equipment and plans, all of which were already under rapid development. Under the stimulus of Emergency Conservation Work and the abundance of CCC labor, many interesting developments were being pushed to completion which will provide that park with quite an ideal protection against fire. Seven steel lookout towers were already constructed and in operation for fire detection. Several more, needed to complete the system, were under consideration, and I had a chance to use some of the well known visibility mapping in determining the proper locations and heights for these towers. This was complicated by the fact that landscape architects consider lookout towers a blot on the landscape. This was a new point of view to me but had to be accepted. Therefore, the number of towers was to be limited as much as possible and their heights held to the minimum consistent with efficient service. All necessary towers are now in place and equipped with modern devices for fire location and reporting. Osborne range finders are in use for fire location, and short wave radio equipment is used for communication.

THE radio system is quite complete and being improved from time to time as more efficient units are developed. At present the park headquarters have power equipment which is constantly in operation so that the smaller portable and semi-portable sets, carried by patrolmen, in their automobiles or by the lookout men on towers, may call headquarters at any time. Regular schedules are maintained so that the patrolmen and lookouts can be called by the headquarters operators. These schedules vary with fire weather conditions, twenty minute intervals being used in very hazardous weather and much longer intervals for less dangerous conditions.



An SP radiophone in action.

Interesting experimental work is being conducted in the hope of improving and perfecting the radio system. The semi-portable sets located on lookout towers are operated by dry batteries. As the batteries gradually lose their power, over a period of weeks, the sets become less efficient, and, finally, the batteries must be replaced. This sometimes involves inadequate communication and considerable expense. In the hope of overcoming such objections, storage batteries, with wind



motor charging equipment, are being tried and seem to offer hope of success. Another type of experiment is with very small, light-weight, portable sets of ultra high-frequency characteristics. They are of interest for the use of patrolmen because of their light weight and for communication between towers where unobstructed air line conditions exist. Such sets are more efficient and less affected by static than most other equipment. It is possible that they may come into general use.

FIRE control in this particular park and many others is being rapidly put on a very efficient basis.. Extinction crews fully equipped with modern fire tools are placed at practically every fire within a very short time after the fire is discovered. The result is that fire damage is being held to almost trifling amounts. This goes to show that the fire problem is one which can be whipped if adequate funds are made available.

During the Great Smokies study my photographic hobby was freely indulged. As a result I had many good photos to use in illustrating the required written report, and good photos are invaluable for such purposes. They aid very materially in justifying and gaining acceptance for perfectly good



recommendations which otherwise may be refused, because words fail to convey a complete picture.

AFTER having my Great Smokies report reviewed, criticized, and accepted by various interested branch chiefs, and most of my recommendations carried out, it seemed that I was well started on the road to recognition as fire control expert for the east. But, changes have a fashion of breaking out very unexpectedly in the Washington environment. I soon found myself on a special assignment, quite foreign to fire control work, and in many respects even more interesting. As a result of my having talked too much at the right time it became known that I had some knowledge of the Mount Olympus area in Washington state. Consequently I found myself assigned to the job of making a detailed study of the proposed Mount Olympus National Park. This proposal, if carried out, would involve the transfer of a large area of wilderness from Forest Service control to that of the Park Service. The change would also preclude any possibility of logging the timber on that area. The logging interests of the region who have hopes of being permitted to log some of the timber if it remains under Forest Service control are supporting the Forest Service vigorously

in opposing the park plan. It, therefore, became my job to study and report upon the probable effect that withdrawal of this forest from commercial exploitation would have upon the sustained yield plans of the Forest Service and the affiliated economic interests.

THIS proved to be a much larger task than was at first anticipated, but it was an extremely interesting one. The scene of the necessary field study was in a region of superb beauty, and during the course of the summer I enjoyed many miles of travel either by horse or on foot, covering practically all existing trails of the Olympics. Some of the longer trips were made in the company of others of the Park Service, interested in other phases of the problem. Several thousand feet of motion pictures were taken on these trips, and again I indulged my photographic hobby to good advantage. Altogether I had such a bully good time that it scarcely seemed like work. At various times, as I crossed trails traversed during the preceding season in company with the gang from Iowa State, there were pleasant recollections of interesting and enjoyable incidents of that other season when the old rallying cry of "Tally Ho!" reechoed in many a wild canyon.

VOLUMINOUS reports, memoranda and maps have been prepared as a result of the summer's explorations, and even yet that same problem continues to pop up for further consideration. Hearings before committees in Congress are in prospect and hold a promise of further interesting developments.

As one hears over the radio, "the wheel goes 'round and 'round and where she stops, nobody knows." My connection with the Mount Olympus project came largely by chance and seems now to have turned me from the field of fire control and into work of quite a different sort. I now find myself being transferred from the Branch of Forestry to the Branch of Planning with the prospect of having special investigations as a steady diet. For the approaching summer this will probably include a trip to California—and where else, nobody knows.

The preceding recital does not seem to describe the work of a forester, and yet the forestry training, even logging, forest products and timber preservation, is of frequent use in judging the merits of park projects. To any student, considering the National Park Service as a career, I would say that a general course in forestry forms one of the best possible preparations. Special work or electives taken in ecology, wild

life management, landscape design and geology will prove valuable to the forester who enters this field.

MANY foresters have entered the park service in recent years and are succeeding both in technical and administrative work. Some have entered as rangers, some as park naturalists and some as technicians connected with CCC work. In most cases where real ability has been demonstrated, through the performance of good work, it is rewarded by suitable advancements. Foresters now hold various sorts of positions such as ranger, chief ranger, park naturalist, park superintendent and branch chief. The organization has grown and expanded to such an extent in recent years that it is now being reorganized on a regional basis. It is possible that a man of forestry training may head one of these regions; and each regional office will probably have at least one assistant regional officer with forestry training. This development indicates that the Park Service will be comparable to the Forest Service in offering opportunities for the employment of men possessing good sound forestry training such as is offered at Iowa State College.

