The Selection of District Rangers
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Introduction

The District Ranger today is an integral part of the personnel of the U. S. F. S. His duties are becoming more complicated both in quantity and quality. The District Ranger is no longer the same man as he was when the U. S. F. S. was first organized.

In writing this thesis I have had two main objectives in mind, namely, one to evaluate the importance of the District Ranger to his particular place in the U. S. F. S., and the other in an attempt to evaluate and point out the criteria necessary in the selection process for District Rangers.

Before the attempted writing of this thesis I asked myself the following question: How is this thesis going to help me?

I personally believe that it will help others the same way as it has helped me.

It has helped me by increasing my knowledge for the job that I am training for, namely, the U. S. F. S. I have gone into the history of the U. S. F. S. from the beginning. I have attempted to explain the setup of the forest organization; I have pried into the District Ranger's part in the U. S. F. S. and his responsibilities therein. I have attempted to set up certain qualifications of a District Ranger; and finally an attempt to form some conclusions as to a selection process involved.

In general, I believe this thesis should be of value to those technical foresters who intend to follow the U. S. F. S. as a career.

So, with this brief introduction I present to you:-

The Selection of District Rangers
Thesis Topic
"The Selection of District Rangers"

I. History of the U. S. F. S.

From the very beginning of America there was a natural belief by the majority of the populace that our forests were absolutely invincible from the standpoint of exhaustibility. That great bounding resource, known as our forests, was pounced upon by explorers, hunters, navigators, settlers, statesmen, etc. who proclaimed it an everlasting resource. By so doing they were among the first to label our forests for destruction. For generations after the discovery of America, the people of America were informed that the forests of this great country were inexhaustible and given proof of such. (2)

At the close of the Civil War a new and greater period was introduced; it was a period of expansion, construction, railroad building, and unwanton destruction of our timber. A few men at this time comprehended this increased destruction, but their cries were made in vain. At this time there were many ineffectual attempts made by federal authorities, statesmen, and men interested in forestry to encourage forest conservation and to stimulate a more serious attitude among the people. (2)

However, in 1876 the first definite stride was made in this country to establish a definite forest policy. "In this year Congress appropriated a sum of $2000 to employ a competent man to investigate the timber conditions of the country and report upon them". The man was Dr. Franklin B. Hough who was appointed with investigational and informational duties. In the ensuing years, a series of national forest laws were placed into effect. (1)

On June 30, 1886, a Division of Forestry was created in the Department of Interior. This was the first definite step in the recognition of forestry as a problem. Prior to 1891, when President Harrison was author-
ized by congress to set aside forest reserves from the public domain, which later became known as National Forests; the public domain belonging to the government was given practically no care or protection by the people that occupied them. The property was recklessly stripped, and plundered by the general public. The people regarded the government property as belonging to no one in general, and free for exploitation as they saw fit. (1)

On June 4, 1896, the present National Forestry Act was passed, which provided for the acquisition and administration of our national forests under a definite workable law. By so doing, the national forests were closed to illegal entry and alienation by Mr. "John Destruction". (1)

On June 1, 1901, the title Division of Forestry was changed to the Bureau of Forestry, and this was changed on February 1, 1905, to the U. S. F. S. under Gifford Pinchot. During this administration of President Theodore Roosevelt, there was a great expansion in the area of National Forests created from the public domain in the Rocky Mountain and Pacific Coast states. President Theodore Roosevelt is noted for his profound attitude of liberal forest conservation, and may be listed among the first in this field of American history. (1)

Until 1908, all of the forestry work of the Federal Government was centralized in Washington, D. C. However, with the rapid expansion of National Forests in the West, a need arose for a better system of management. This was brought about by the decentralization of power in Washington, D. C. and the establishment of forest regions in the West. Those in the East followed later. (1)

On March 1, 1911, the Weeks Law was passed which provided for purchase of forest property at the headwaters of navigable streams. Heretofore, our National Forests could only be created from the public domain. This act also set up administration for a National Forest Reservation Commission,
and cooperation with the various states on phases of fire prevention, detection, and suppression. (3)

On June 7, 1924, the Clarke-McNary Bill was passed with a presidential signature. This bill had the significance of a forest policy itself. It provided for an authorized study of forest taxation, the cooperation with the various states in forest fire prevention and suppression, the production and distribution of forest seed trees and plants for reforestation purposes, assistance for the owners of woodlots in establishing, improving and renewing them, increased purchases of National Forest Lands. (1)

On March 22, 1928, the McSweeny-McNary Bill was passed which provided for a definite program of forest research. A fund was established for experimental research. (1)

On April 30, 1928, the McNary Woodruff Bill was passed authorizing appropriations of $8,000,000 for the further extension of our National Forest System in the following three years. (1)

On November 12, 1930, President Hoover appointed the United States Timber Conservation Board. The members after several meetings presented several conclusions and recommendations for the furtherance of a national forest policy. (1)

In 1933, the inauguration of President Franklin Delano Roosevelt brought about a succession of congressional acts which affected the forest service and had a direct bearing on federal forest activities. Among these may be mentioned the National Recovery Act, Emergency Conservation Work, Tennessee Valley Authority, The Soil Conservation Service, Great Plains Shelterbelt Project, etc. (1)
The Forest Organization:

The administration of the present United States Forest Service is centered at Washington, D. C. under the head of the chief forester of the United States. Under the chief forester, the forests of this country have been divided into nine separate regions with a regional forester at the head of each. Also one region has been set up in Alaska with a regional forester in charge.

In each of these regional headquarters, the work is proportioned similarly to that at Washington, D. C. except that research is administered directly from Washington, D. C. rather than from each of the regional offices.

The United States Forest Service has been divided for organization purposes into three distinct categories, namely: (a) "the protection, administration, and development of the National Forests; (b) research and technical investigations to improve the growing conditions and more efficient utilization of our forests, particularly on federal properties; (c) extension work, known also as public relations, including cooperation with the various State Forest services and private owners in promoting better forestry practice in the woods." (1)

The Forest Service includes about 3000 men who are permanent employees, of which 2/3 are directly employed in the National Forests as Supervisors, District Rangers, Junior Foresters, lumbermen, and other technical assistants. The remainder are employed as research men at Washington, D. C. and at the Forest Products Laboratory at Madison, Wisconsin.

In addition to the 3000 men who are employed permanently there is a force of approximately 3500 temporary fire guards who are hired for the duration of the extremely hazardous fire season.

The protection and administration of our National Forests involves many different phases of work. Among the foremost is the problem of protection from injurious agencies. The most important work in this particular phase is that of protecting our forests from fire, insects, and
disease. This is of fundamental value, because if a forest cannot be as-
sured for the future there is little use of planning for other phases of
management. The growing use of the forests has increased the hazard of
fire greatly, but more modern methods of fire fighting and efficient
personnel has decreased greatly this hazard. The white pine blister
rust and western pine beetles have caused a great deal of loss in both
ponderosa and lodgepole pine stands.

Timber growing and cutting is another very important phase in the
management of our forests. This phase is usually well controlled by
timber sales, and it is usually the case that the best silviculture
and utilization practice are used. The total stand of saw timber in our
National Forests is approximately 600 billion board feet, and the annual
cut of 1-2 billion board feet is much less than the annual growth. "The
principal timber sales are made in the states of Washington, Oregon, Cali-
ifornia, Arizona, Idaho, Colorado and Alaska, mentioned in order of quan-
titative importance". (1) A greatly increased planting program has been
inaugurated in the Lake States and the South. Large nurseries have been
established at Manistee and Manistique, Michigan, Alexandria, Louisiana
and Wind River, Washington. At the present time, there is approximat-
ely 2 million acres of forest land in need of planting, and it is estimat-
ed that the above mentioned nurseries will soon be producing from 100-150
million trees annually. (1)

Grazing and improvement of the range is a definite problem in many
states where timber growing is not the chief concern. The following
figures will make this plain to see. Grazing permits on National Forests
were recently granted annual to over 1,300,000 cattle, 6,000,000 sheep,
32,000 horses and 11,000 goats. Range improvement for a typical year
included the building of 615 miles of fencing, 34 corrals, 79 driveways,
5 bridges, and 516 water developments. The maintenance of these and many
other improvements already installed require the services of a large num-
ber of experienced men.
Recreation and game also play a very important part in many of our National Forests. The forests themselves offer excellent opportunities for outdoor recreation because of their spaciousness, wide distribution over many parts of the country, scenic beauty, favorable climatic conditions, etc. In one year over 35,000,000 people enjoyed the recreational facilities of our National Forests. Many primitive areas have been set aside for future recreational enjoyment. Under proper permit leases are given for hotels, campsites, summer cabins, and other recreational developments. There are over 60,000 miles of fishing streams in our National Forests, and hunting has been improved three fold. (1)

Water power is another important phase of regulation that has been developed in the National Forests, mainly in cooperation with the Federal Power Commission.

The development of roads and trails is another definite policy of the United States Forest Service. The C. C. C. have been very effective along this line and have made the forest more quickly and readily available to the public and have insured better fire protection.

Research plays a very important and integral part of the work of the Forest Service. "The chief activities in research are in the fields of forest economics, such as forest taxation, forest management investigations to improve the growing conditions of the forests, studies on fire hazard, improvement of the growing and utilization conditions in the naval stores industries of the south, erosion and stream flow investigations". The Forest Products research laboratory located at Madison, Wisconsin is doing great work in discovering better and more efficient utilization of our forest products. Effective research work is also carried on in correlation with range management, disastrous floods, forest fires, etc.

Public relations is the third phase of the management of our National Forests. It is primarily educational and cooperative in text and attempts to secure the cooperation and attention of the public in the firmation of sound forest policies as applied to federal, state, and private forests. It actively cooperates with the various states, municipalities and individuals owning timber land. It handles most state work through the Clarke-McNary Act. (1)
A. Chief Forester

In the following list of U. S. F. S. personnel, I will attempt to only briefly outline each job and what it means to the U. S. F. S.

The chief forester is the main spring and the principal cog in the U. S. F. S. organization. He has charge of the combined activities of the various phases of work involved. It is the job of the chief forester to co-ordinate the activities of the forest regions into one of harmony and coordination.

The chief forester represents the U. S. F. S. in the legislative matters pertaining to legislative action.

The chief forester should be a man with a well trained background, one who can understand the principals, methods, strivings, etc. of the Forest Service in this country. He should be capable of handling all problems that confront him in a satisfactory and logical manner.

B. Regional Forester

The Regional Forester is under the general direction of the Chief Forester, but has a great deal of leeway in the line of duty providing he keeps within the laws and regulations provided. He is to have charge of from 7-28 million acres of National Forest land in from 1-14 states. He is to be responsible for the task of protecting, developing, and utilizing conservatively the resources of this land, and the handling of expenditures and receipts.

Some of the typical tasks performed by a Regional Forester are: handling of personnel management and general administration, caring for development and utilization, the handling of land exchange, and general land management, matters concerning protection, and matters in public relations.

To be qualified for the job of regional forester it is required that you have a recognized degree in forestry from some major forestry school of the United States.
Another minimum qualification is that he must have at least 15 years of actual experience in the management of forest land, and at least 10 of these must have been with the U. S. F. S. He should have a high degree of skill, abilities, and knowledge. He must have a high degree of personal attributes. (5)

C. Forest Supervisor

The Forest Supervisor is under the general direction of the Regional Forester, but with wide latitude for independent judgment and action.

He is to have charge of a National Forest unit averaging 1% million acres, and a staff of 10-30 technical, administrative, and clerical employees, and temporary labor forces ranging up to 500. He has numerous duties and responsibilities that he is supposed to live up to. Some of the typical tasks he has charge of are developments and utilization, timber management, range management, lands work, protection work, public relations, and other phases of administration.

The minimum qualifications are that a supervisor must have a training equivalent to that represented by graduation from a college or university of recognized standing with major work in forestry or range management. He must have had at least 5 years experience as District Ranger or Assistant Supervisor. Besides the above mentioned qualifications he should have certain knowledges, abilities and skill, and personal attributes of high quality. (5)

D. Deputy Forest Supervisor

Like the District Ranger, the Deputy Forest Supervisor or Assistant Forest Supervisor is under the general direction of the Forest Supervisor, with a great deal of freedom for independent and unrestrained action. Some of his duties and responsibilities are to formulate protection, timber management, range management and improvement plans for a National Forest. He carries plans into effect for the organization of certain re-
sources, and the general supervision along certain lines of work on the National Forest.

Some of the typical tasks that he performs are:— to share with the Forest Supervisor in handling administrative employees, to direct or supervise the cruising of important timber tracts, to take charge of drafting rules governing marking of timber sales, to have charge of the issuance of grazing permits, to check and correlate game-census data submitted by District Rangers, etc.

The minimum qualifications for a Deputy Forest Supervisor are that he must have training equivalent to that represented by graduation from a college or university of recognized standing with major work in forestry, range management, or civil engineering, four years of general experience in National Forestry work, etc. (5)

E. Junior Forester

The Junior Forester is under the immediate supervision to perform the more elementary professional, scientific, and administrative work in forestry, requiring less training.

Some of the typical tasks that he may be assigned to are listed as follows: he will be under close guidance to carry out plans, instructions, etc. with little or no opportunity for independent or unrestrained action or decision, he will serve as an assistant to an Assistant Forester, Associate Forester, Forester, District Ranger, Assistant Forest Supervisor or Forest Supervisor, he may be called upon to mark timber for cutting, following approved silvicultural methods, to survey and map forest areas, and to assist in the administration of large timber sales.

The minimum qualifications of a Junior Forester call for training equal to that of graduation from a college or university of recognized standing with major work in Forestry; a general and scientific knowledge of practical forestry; keenness of observation; and interest in scientific research. (4)
F. Forest Guard

The Forest Guard is under the general direction of the District Ranger, and is usually employed under a 4-months authority as a Forest Guard, Lookout, Fireman, Patrolman, etc. During the summer months he assists the District Ranger in carrying out the presuppression and suppression plans of the district. In most cases the forest guard is the eyes of the district, and he is on his own from the start to be a useful employee.

The Forest Guard is responsible for apprehension of game violators, forest violators, supervision of various campgrounds, resorts, etc. He is responsible for the detection of fires, cooperation among forest users, etc.

The Forest Guard is usually a forestry student or a local employee who is hired for the summer only. Forest Guard training is very valuable to the individual who expects to go into the forest service later on.

G. Forest Ranger

The District Ranger is under the general direction of the Forest Supervisor, but has considerable latitude for independent action. He is responsible for protecting, developing, and utilizing National Forest resources on an average of about 230,000 acres. He assists in making and carrying out comprehensive plans for handling such resources, protection and managing timber lands, range lands, recreation areas. He is liable for disseminating information among the public, and obtains the cooperation of forest users in the National Forests. He should promote forestry among the land owners of his district and should represent the U. S. F. S. in the communities served by his Ranger District.

Some of the typical tasks that he is called on to perform may be listed as follows: formulation of administrative plans, matters concerning protection of his district, timber management, handling of lands
on his district, matters concerning range management, and improvements on the district.

The District Ranger should be a college graduate of recognized forestry school of the United States. He should have a thorough knowledge of the principles and techniques of the general administration of a ranger district, besides numerous other phases of administration. (5)
III. The District Ranger's Part

A. Duties and Responsibilities

The District Ranger is under the general direction and supervision of the Forest Supervisor, however, he has considerable latitude for independent action. The District Ranger is responsible for the protection, developing, and utilizing a National Forest area with an average acreage of 230,000 acres. The District Ranger is to make or help in carrying out detailed and comprehensive written plans for handling these resources, managing and protecting timbered land, range land, recreation areas, etc. It is the District Ranger's part to spread and disseminate such information among the general public and obtain the cooperation of the same in the righteous use of National Forest land. It is the District Ranger's part to promote knowledge of forestry among the adjacent land owners, and to creditably represent and serve the Forest Service in the communities served by his Ranger district. (5)

B. Typical Tasks

The typical tasks of any one given District Ranger job will not be the same. All the tasks described in this particular section are found in some Ranger Districts, but not necessarily in all.

As a rule the District Ranger has no year long assistant, but he does have from 2-50 helpers during the critical part of the fire season; these helpers include forest school students, common labor, and skilled workers. As to whether the District Ranger will perform or direct the performance of tasks mentioned herein depends on the circumstances. (4)

1. Administrative Plans

It is the District Ranger's duty and job to coordinate his activities along with the Forest Supervisor in classifying the land of Ranger Districts according to its highest usefulness, and to formulate basic land use plans
so that the land of the district may be devoted to its most practical use such as timber production, forage production, recreation work, scientific research, etc. It is the District Ranger's part to make a yearly survey to ascertain the amount of work that has to be done for the ensuing year in the various activities of timber management, range management, forest protection, land occupancy, claims, acquisition, improvement construction and maintenance, forest extension, and public relations.

It is the District Ranger's part to see that these are carried out by foreswing and listing necessary jobs, revising and formulating objectives, policies, standards, and priorities for application on his district. It is the job of the District Ranger to check yearly systematically the accomplishments against certain job lists, objectives, policies, standards, and priorities, making such adjustments as may be better to meet the needs of public service and to reorganize his methods if achievement is falling behind schedule. (5)

2. Protection

It is the District Ranger's part to analyze and have a complete understanding of the various phases and angles of the fire control problem of his Ranger District. This should include causes of fires, motives of incendiary fires, the relative future, danger on various parts of his district, and reasons for successive failures in handling past fires.

The District Ranger should keep informed of developments in the technique of fire prevention and suppression.

The District Ranger should supervise educational methods to minimize or overcome particular fire risks of human origin to which his district is exposed, such as incendiarism, carelessness on the part of hunters, fishermen, campers, etc.

The District Ranger should make talks before local schools, civic organizations, and other gatherings, and to keep forest and game protection before the local public.
The District Ranger should make it his duty to feel out possible and existent fire traps on his district, and to inform those responsible of such existing hazards that may result from trash along forest roads and trails, dead snags on hazardous areas, dangerous areas around campgrounds, etc.

It is the District Ranger's part to make visibility studies of his district from various points and to determine the area seen from each. From these visibility studies it is the duty of the Ranger to determine the number of lookouts needed and the best location for them in order to discover all fires within an allotted time. It is the Ranger's duty to determine any additional discovery service that may be needed to supplement the lookouts because of certain areas that the lookouts are not able to see. He is to make appropriate changes and recommendations known to the Forest Supervisor.

It is the duty of the District Ranger to locate his guards in the most suitable spots in relation to his risks, from the standpoint of travel time to various points on the district, probable zones of lightning strikes, etc. From the above he should be able to determine the number of fire guards needed, periods of need, and their respective wage scales in order to get the most adequate set up of fire control for the district. Along with this the Ranger should determine the type, number, and distribution of tools to their respective places and to maintain such equipment at a high standard.

It is the District Ranger's part to take a hand in the formation of plans that are designed to prevent forest fires and to execute such plans as well as to discover and suppress promptly fires that do start. However, along with this he should take into account the established forest policies, standards, and all approved methods developed by the Forest Service or himself.
The District Ranger should select and arrange with men for employment during the fire season of from two to seven months. This force is to be composed of fire lookouts, fire guards, and others employed for the temporary season.

It is the District Ranger's part to check by frequent inspections in the field the quality and effectiveness of the short term force, particularly the suppression work on small fires. The Ranger should act as an instructor at training camps and should assist in the formulation of a program of subjects for training of short-time fire-control forces. He should prepare written instructions to each and every member of his protection force at to the detail of the work involved in each position.

The District Ranger should be alert to increased fire danger and to frequent changes in weather which may make forest litter and vegetation more susceptible to fire. He should be able to act on reports of fires discovered by lookouts and other agencies, and he should be able to take definite charge of fire fighting on the line of action. He should be able to organize a fire fighting organization of from 10-200 men into crew units, designating jobs, rates of pay, identifying critical points along the line, and numerous other duties to numerous to mention.

It is the duty of the District Ranger to check time, collect bills, check them, and prepare accounts concerning cost of fire fighting.

He should be ever on the alert for evidence of clues that may lead to the discovery of man caused fires. He should cooperate to the fullest extent and with local authorities and courts on matters of this nature.

The District Ranger should be on the alert for threatened infestations of forest insects and tree disease and he should inform the Forest supervisor immediately of such attacks. (5)

3. Timber Management

The District Ranger has many tasks to perform in the job of timber management. It is the job of the District Ranger to play a large part
in the determination of logical boundaries of working circles. He should take an active part in gathering technical and administrative information that may be used in the management of timber stands, or to determine the silvicultural systems to be used.

The District Ranger should take a hand in gathering the basis data needed to make sales of National Forest timber. This should include the determination of species of a given sales unit, collection of data as to logging and milling cost, etc.

The District Ranger should maintain records of timber sale chances awaiting buyers, and to induce operators to buy timber that should be cut. Along with this he should assist in the selection of individual trees to be marked for cutting on sales, and to select areas to be cut as stated under the timber management plans. He should be able to handle all the necessary details in handling from one to three large sales made under the approval of the Forest Supervisor.

The District Ranger should supervise crews in the burning of slash in correlation with the cutting of timber on sale areas in order to remove the danger to remaining crops. He should be able to handle the crews in relation to silvicultural improvement work, carry into effect the policy worked out by the Forest Supervisor.

It is the job of the District Ranger to carry out experimental investigations in silvicultural operations such as thinning, density, rate of growth, extent of fire damage, etc. (5)

4. Land Use

It is the job of the District Ranger to handle all applications for occupancy of sites on recreational areas for hotels, homes, stores, etc. He should examine the lands for which application has been filed to determine if the proposals for application are reasonably proper.

The District Ranger is to estimate and appraise the value of timber to be taken or destroyed in connection with land use. He is to examine
claims filed upon National Forest land under the mineral laws or the Forest Homestead Act of June 11, 1906.

It is the duty of the District Ranger to cooperate with the agents of the United States Land Office in presenting cases of law violation of certain land requirements and to act as a witness for the United States if called on.

He should assist in the survey of recreational areas in advance of applications, and to inspect all permit areas at least once each year to determine if the permittees are complying with the terms of their permits. (5)

5. Range Management

It is the duty of the District Ranger to take an important part in determining the boundaries of stock ranges and grazing allotments. He is to take an active part in the assembling and the collection of data essential to range management plans. He should be able to determine the character, density, etc., of different forage types, and determining the palatability of each species and type, and when each are ready for utilization.

It is his duty to see that the proper utilization of forage on his Ranger District is maintained by having field inspections at least twice a year; to count the stock before it is sent out on National Forest land, that all stock is salted according to plan, that the stock does not trespass on to allotments to which it is not assigned, that salt boxes, water developments, corrals, fences, etc., are constructed wherever needed.

It is the District Ranger's job to make an annual grazing report on the completion and execution of range management plans, and along with proper recommendations in regards to open and closing of grazing season, capacity of ranges, classes of stock, etc. He should attempt to discover any attempts to trespass stock on National Forest land and issue prompt
action for its removal. He should stimulate the organization of stock associations made up of permittees with the thought in mind of securing better range management.

The District Ranger should be on the alert against outbreaks of diseases among permitted stock, and to act appropriately. He should be on the lookout for plants poisonous to stock on the National Forest ranges and should look to the eradication of such plants or the removal of stock from such areas.

It is the District Ranger's job to lay out sample plots in the light of better range management such as seasonal grazing, carrying capacity, different classes of stock, etc. (5)

6. Improvements

On every Ranger District there is always a need for improvement. It is the task of the District Ranger to foresee the need for trails in order to reduce the travel time to various points in the Ranger district. He should anticipate the needs of various roads for timber management, recreation, etc. He should organize and select trail and minor road projects for a fiscal year from the transportation plan and secure the approval of the Forest Supervisor, and if approved organize and approve the season's construction program. It is his duty to see that an adequate communication plan is in effect for the district. To see that the District communication setup is completely overhauled at least once each year, in some cases to take charge and direct the crews, but in other cases to supervise them. To show owners of rural lines the proper methods of upkeep and installation of telephones, and the value they are to the administration in serving and doing their part.

It is the District Ranger's duty to install and keep in working order, telephone instruments, repeating coils, extension balls, and simple switch boards. He should be able to trace trouble in the communication
system by using the various technical testing methods. He must be able to calculate the line load capacity of the telephone systems of the Ranger District, and when overburdened, work out details to better satisfaction.

It is a task of the District Ranger to organize crews, establish wage scales, procure supplies and to take charge of, or supervise the construction and maintenance of all buildings on the District. He should keep a record of the expenditures, and the allotments for a fiscal year. During periods of low fire hazard he is to keep his protection force busy by doing work close to their headquarters and to plan for a job list for each under his supervision. (5)
IV. Qualifications of a District Ranger

A. The Past

The District Ranger of the past compared to those of today, might be
classified as a backwoods farmer. His position was not held in esteem by
many and his pay was low.

His duties were limited mainly to those of protection and game en-
forcement work. His quarters consisted of a one-room shack in some re-
mote wilderness spot of the forest, and often not even this. He was con-
sistently forced to be on his own initiative, with very little help from
the outside. He was often times marooned for months at a time, without
the slightest sign of civilization to keep him company.

Contrasted with the District Ranger of today, there has been more
than a change, there has been a revolution in the management of Ranger
Districts.

The qualifications of Rangers in the past was limited to mostly
physical characteristics, and very little education of any sort was
needed.

If a person even looked like a backwoodsman, he had the qualifica-
tions of a ranger.

Today, the requirements are greatly different and probably no two
are alike.

B. The Present

1. Education

To be a District Ranger with the U. S. F. S. a person must have
training equivalent to that of graduation from a recognized forestry
school of the United States, or a graduate of a recognized school in
the field of Range Management.

2. Junior Forester Examination

The Job of District Ranger with the U. S. F. S. is now classified
as a Civil Service job. Every year the U. S. Civil Service Commission
gives the Junior Forester Examination which entitles the individual taking the exam to a place on the Civil Service Roll, providing he receives a passing grade of 70. This standing is only good for one year and then the examination has to be taken again.

The requirements for District Ranger are becoming stricter every day. At the present time there is a great many on the waiting list, with not enough jobs to go around. However, there is a possibility that after war conditions will open up a greater field of employment for the young graduate on the Civil Service list.

3. Experience

The minimum requirements of a District Forest Ranger in the line of experience should be at least two summers of field experience. Besides this his training should include timber survey or range survey work, timber sale work, improvement work, fire control jobs, as much fire fighting as possible. The training should be rounded out by assignment to a ranger district for at least six months as an assistant to the District Ranger in all lines as the work occurs. The minimum time to qualify an average forest school graduate as a district ranger would be one full year plus two previous field seasons. (5)

4. Abilities, skills, and knowledge

The District Ranger of any Ranger District should have the ability of foreseeing, planning and coordinating the various activities of a Ranger District; he should have an ability to influence the local public in a sentiment of the evils of forest burning.

The District Ranger should be a skilled technician in botany or silviculture as it is applied to forest and range management.

The District Ranger should have the ability to withstand adverse influences, weight and determine evidence that has been brought before him, and blend and harmonize divergent points of view.
The District Ranger should have the ability to influence grazing operators to accept new theories and methods of handling stock on the National Forest lands, and to convince timber sale operators to accept Forest Service methods of timber utilization and forest protection.

The District Ranger should have ability and skill as an organizer and executive in charge of crews engaged in improvement work or other activities. (3)

5. Personal Attributes

A District Ranger should have a rugged physique, good eye-sight, and be absent of physical impairments which may interfere with standing up under severe physical and mental strains for long periods of time.

It is essential that a District Ranger have a strong personality, good observation, initiative, versatility, good workmanship, a professional viewpoint, cooperative spirit, a high quality of leadership expressed as either a foreman, or inspiring others to a high standard of performance. He should be willing to work alone or live away from large centers of population and the comforts of the cities and towns, and he should have good tact and presentation in dealing with the public.

The District Ranger should have a high degree of physical courage and technical skill in planning the strategy, technique, and methods to be used in fighting forest fires. (5)
V. The Selection Process

This thesis in general has had two main objectives; namely, one to evaluate the importance of the District Ranger to his particular place in the U. S. F. S., and the other to attempt a selection process of the best possible men for employment with the U. S. F. S.

In the article, "The Selection of Junior Foresters" by John B. Hatcher, I believe I have found the solution for a fair basis of this selection process.

A. Procedure

1. Analysis of Junior Foresters

A sound basis was established by sending a Junior Forester Type Analysis form to all the regions and experiment stations requesting a detailed analysis of the ten best and the ten poorest Junior Foresters employed within the past few years. Some 300 men were rated on some twenty-odd factors of education, scholastic record, experience, background, and personal qualifications. These analyses were studied by individual factors and related groups of factors in an effort to locate discriminating indices. Composites were then set up by consensus for a best and poorest man.

2. Personnel Records

The active personnel records of all Junior Foresters appointed from 1924 through 1934 were examined for key characteristics, with special attention accorded to outstanding men. In addition all resignations, dismissals, and disciplinary personnel cases during the past ten years were studied in an attempt to determine the underlying causes.

3. The average yearly salary increase was plotted against grade received on the Junior Forester examination for each man, and a straight line correlation by statistical analysis was run.

(a) for the entire groups
(b) by yearly registers
(c) for appointees from 1924-1931 (discussion type examination)
(d) for appointees from 1933-1934 register (short answer type)
(e) for grades 64.27-70.00 versus 70.01-75.73 when eligibles were certified from below 70 because of exhausted register.

These data were checked for significance, reliability and chance of error.

4. The Junior Forester examinations from 1917 through 1937 were closely compared by type, scope of subject matter, difficulty of questions, per cent of passes, and average passing grade in order to disclose any variation in severity.
B. Conclusions

1. There is no significance between the grade made on the Junior Forester examination and subsequent advancement in the U. S. Forest Service.

2. The following factors afford no selectivity:
   (a) occupational classification of parents
   (b) early environment, city, small towns, farm plains, wooded section, or forest
   (c) extra-curricular activities in college
   (d) judgment of comparisons
   (e) interests in man, or things
   (f) relative devotion to study, objective activity

3. Prior experience in general woods, farm, or engineering work is advantageous when contrasted with miscellaneous work experience or lack of such experience, but it is not a good criteria for differentiating between the best and the poorest prospects.

4. The relationship between successful work and good health and vitality is close, but of limited selective value.

5. The groups of characteristics listed below are excellent selective indices.
   (a) A work-business division of executive and organizing ability, judgment, and common sense, reliability, practicability, and persistence.
   (b) A personal-qualities group of leadership, cooperation, ambition, adaptability, and personality.
   (c) A mental reactions group of intelligence, mental curiosity, imagination, and enthusiasm.

6. The man's scholastic record in the college furnishes a reliable index for his future success in the service.

7. The completion of graduate work has good selective value.

8. The scholastic rating of the forestry school attended is sufficiently selective to encourage preferences.

C. Recommendations

Every man who has taken the Junior Forester Examination is a product of forestry education, experience, examination, and probationary work, have gone through a period of testing and training.

To improve the Forest Service method of advising, evaluating and placing incoming men, it is recommended that the following data be furnished.

1. A scholastic, personal, and general appraisal of each man by the dean of the forestry school.
2. A transcript of the courses taken and the grades earned.

3. A comprehensive job application to be submitted to the recruitment officer by each man before being interviewed.

4. A report on each prospective Junior Forester by a permanent recruitment officer.

5. Utilization of the annual analysis of the Junior Forester examination questions made by the Division of Research, Forest Service.

D. Summary

This study has shown a lack of relation between grades and advancement of men in the Forest Service. It has shown that a high scholastic record, personality, work business traits, and mental qualities are the most reliable indicators in measuring the future success of those men. It has disclosed a need for more complete personnel records, improved recruitment procedure, a broader scholastic training, a more selective Junior Forester examination, and an extension of career services."
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