UNITED STATES

DEPARTMENT OF THE INTERIOR

NATIONAL PARK SERVICE

Joshua Tree National Monument
Twentynine Palms, California

July 17, 1945.

MEMORANDUM for the Director.

CUSTODIAN'S ANNUAL REPORT FOR JOSHUA TREE NATIONAL MONUMENT

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Introduction

The monument survived another year with another small appropriation. Not much was accomplished, but we held on and did not lose too much ground. We have tried hard to retain the prestige of the Park Service, but we are reluctant to report that we are locally losing face. When individuals and civic organizations start making jokes about the Government's custodianship of an area, it is about time to expect unpleasant criticism.

War Requests

There have been no requests by the military forces for special use of the monument. This office was verbally requested for permission to use parts of the eastern portion of the monument for rocket bombing ranges, but when it was pointed out that such use was incompatible with monument status, the Navy engineers found other areas.

The local naval personnel have used the monument quite extensively. Several times a week a convoy of ten-wheeled two-ton trucks transported enlisted men into Indian Cove and other parts of the monument. These big trucks have rutted the roads considerably, but it was for a good cause.

Weather Conditions

The best time to write about the weather is during a hot spell such as exists now. With the thermometer standing at 108 degrees in the shade, it does not require any imagination to know it is hot.

The heat does not bother so much as does the long period over which hot weather prevails. Last year there were 150 days when the official shade temperature at Twentynine Palms was above 90 degrees. On 81 of these days the thermometer stood above 100 degrees. In other words, temperatures above 100 degrees may be expected for the next two and a half months. By the middle of September anyone who has constantly to remain and work in this heat is physically and mentally worn out.

Temperatures in the monument are both higher and lower than at Twenty-

nine Palms. Pinto Basin will average ten degrees hotter and the higher areas in the western part of the monument are generally about 18 degrees cooler. The greatest difference occurs at night. Most of the old-timers know that it requires a drive of only twelve miles into the monument to find weather sufficiently cool at night necessitate additional clothing.

The saving feature of this area is the low humidity. During June 1945 the average low humidity reading which occurs about 5 p.m. was 11.7%. The lowest reading was 4% which occurred twice during the month.

Precipitation for the year was decidedly below normal, if there is such a thing as normal precipitation in an arid region. On the basis of ten years records, the average rainfall is five inches. The precipitation for the twelve months period starting last July was 3.12 inches, or roughly two-thirds the normal amount.

Of the total rainfall two-thirds fell during the month of November. It would present a better understanding of the aridity of this area to state this another way. The precipitation on November 5 was more than one-third of the total yearly rain. Another third occurred from November 12 to 15. About one-sixth of the yearly total fell on November 12. In other words, over half the yearly rain fell in two days.

Maximum temperature for the year, 115 on August 12.
Minimum temperature for the year, 28 on Jan. 30 and Nov. 26.
Average maximum for the year, 81.
Average minimum for the year, 52.
Total rainfall at Twentynine Palms, 3.12 inches.
There were 242 clear days, 76 partly cloudy, and 47 cloudy.

Boundary Changes

Considerable study has been made on boundary adjustments but no action has resulted. The Custodian recommended, from a map study only, the deletion of 280,000 acres from the monument. The Regional Director does not believe this is a propitious time for the Park Service to relinquish land.

This office has not been directed to continue the boundary study, consequently we are not in a position to make final recommendations. We would not wish to recommend a boundary until we had traced it on the ground. Since it is going to take several months of hard work in the field to locate a suggested boundary, we do not desire to start the job until some agreement has been reached as to the approximate boundaries.

There is no easy or simple solution to locating a final boundary at Joshua Tree. The topography of our base map is so inaccurate that a boundary cannot be established from it. The Army Engineers topographic sheets do not show the public land survey, and the General Land Office survey over much of the area under consideration for deletion is either unsurveyed, or was sur-

veyed in the 1850s, and but few of the corners can now be found. Moreover, we do not have a vehicle which we can depend upon to get us over this rough terrain. The pick-up truck has had 42905 miles of hard use, and it was not designed for such rough work. Also, it is the only light truck we have and it has to be used for fire patrol. We cannot take any chances on wrecking it because from the past history of allotments for Joshua Tree we certainly cannot expect a replacement should anything happen to this one.

Status of Private Lands

There are no definite changes now to report concerning private lands. However, there is considerable interest in the Southern Pacific lands in the monument. Last year this office learned directly or indirectly about five propositions wherein individuals or concerns planned on making developments within the monument. Two of these have been the subject of special memorands. Information regarding the other three has been obtained indirectly with insufficient data upon which to report.

In general, there is much real estate activity in the Twentynine Palms area. Land around this community and at Joshua Tree (western entrance to the monument) is selling for $100 an acre. A month ago the District Land Office at Los Angeles had filed over 3000 applications for 5-acre recreational homesites in and around Twentynine Palms. Two more townships, 46,080 acres, were recently resurveyed so they could be opened for filing.

These homesites are leased at $1.00 an acre a year with the understanding that sometime the land will be sold and patent given. The cost per acre will probably not be less than $2.50. In addition, a $10.00 advertising fee will be required. If a person carries the lease for three years, (the Department has not yet decided when patent will be issued) the land will cost $7.50 an acre.

This is to be contrasted with the asking price of from $2.00 to $3.00 an acre for Southern Pacific lands within the monument. Add to this the fact that these lands are not only much more desirable for recreational desert homesites, that they are located in the most scenic part of the monument, and that thousands of people are interested in obtaining desert homesites, and we have all the necessary conditions for another land promotion scheme.

If this does not happen within a few months, there will be only one reason--lack of water. Should the lands in Lost Horse Valley be purchased there will be many more such promotions because there will be considerable money to be made from them. Also, several local real estate operators know about this opportunity. They state frankly they have restrained from endangering the monument, but if others start it they too will take advantage of the opportunity.

We have no way of knowing if any of these projects will materialize. We do know the Service is sitting on a powder keg.

Plans, Maps, and Surveys

There is very little to report on these subjects. A few preliminary detailed plans were locally produced, but their completion has not been p pushed because we do not anticipate any improvements in the monument until the private land situation is settled. Since the alienated land situation is worse now than it was nine years ago when the monument was established, and since there appears to be no prospect of improvement, there is no reason for making detailed plans.

During the year U. S. Army Engineers completed topographic sheets were received for portions of the monument. Unfortunately, the sheets cover only about two-thirds of the area. The field work has been completed on the remainder of the area and sometime after the war is over the Army Engineers will produce the rest of the sheets. Meanwhile we are still struggling along with a very inadequate base map. Lack of engineering assistance in the Regional Office has made impossible the revision of this map. The current edition, for instance, shows graded roads where such do not exist, and does not show even trails where there are graded roads. The supply of these base maps is practically exhausted. This office does not have any copies and we are informed Region Four Office is practically out of them. Since the information on the map is so inaccurate, it has been recommended that we go without maps rather than have copies made of a map containing so many errors.

The first map that should be produced for Joshua Tree is one showing the location of the several hundred triangulation stations which have been established by agencies other than the Park Service in the monument. This is the real "base map" for the area and all other survey and map work should be tied to these stations. This office has on hand practically all the required data for the production of such a map.

Maintenance

Under this heading there is one subject only that requires discussion. With the exception of a few tools and four pieces of automotive equipment, roads are the only improvements the Park Service has made in the monument which need maintenance.

Due to the absence of cloudbursts and the below normal rainfall, the roads held up better last year than was expected. However, they still are very vulnerable to a heavy rain. Each year wind, water, and traffic erosion removes about an inch of soil from the roads. Since this lost dirt has not been replaced, the roads are becoming better channels for run-off water. The drains which were sufficiently deep to carry off this water when the roads were improved, now are not deep or long enough. On a few stretches of the roads the drains were widened and deepened, but due to the lack of funds the job was poorly done and only a few of them were improved.

Last years allotments were simply insufficient to properly maintain the improved roads. Unfortunately, since the combined administrative and protection accounts did not cover the fixed expenses of running this office, it was necessary to transfer $200 from the road allotment. This left $800 with which to maintain about 85 miles of roads. Desert dirt roads that are used the year round cannot be maintained for $9.41 a mile.

The problems of road maintenance have been stated in several memoranda/ It is believed desirable to restate them.

All road engineers, both Service and otherwise, think it is a big joke that anyone could be expected to maintain desert dirt roads for $10 a mile. We could quote figures of amounts received by other Service areas, State, and County agencies for maintenance of such roads which are from five to fifteen times greater. The Regional Engineer recently estimated that it would take about $300 a mile to put some of our roads in good condition.

Another difficulty last year involved the procurement of qualified workers. An experienced motor patrol operator could not be obtained at the wages we were permitted to pay. The result was we took a truck driver who had had road building experience and tried to make a grader operator out of him. It didn't work, with the result that the Custodian, who likewise had never operated a motor patrol, had to take over. The present condition of the roads well illustrates the known fact that only skilled workmen can produce a finished job.

Constantly having to break in new men is a waste of time and effort. Maintaining desert dirt roads is a difficult problem which requires experience in arid regions before a satisfactory job can be done. Joshua Tree should have a permanent road foreman who could devote his energies and thoughts to the improvement of these roads.

The conditions which prevailed last year illustrates the need for a permanent position. This desert sand will not pack unless it is wet, consequently the roads cannot be graded until there is moisture in the ground or unless there is some probability that rain will fall. Last year two-thirds of the total yearly rainfall occurred during the first part of November. It is unusual to have such early rains. Not having a grader operator, it would not have been possible to get one on the job before the soil dried out. Fortunately the Custodian and Clerk-Ranger graded the roads, because there has not been sufficient rainfall since to properly work the roads, and none can now be expected excepting cloudbursts for six months. It is necessary to have a man on the job who has previously prepared the road so that the soil can be laid down when it is wet. If, after a rain, we have to spend time/[illegible] hiring an operator and then prepare the soil, it will again be dried out before any good can be accomplished.

The meager allotment and low man-power ceiling makes it impossible to maintain some sections of the roads. In sandy soil where there are a few rocks only or where rocks in the upper part of the road bed were removed at the time the roads were improved, a grader operator working alone can do a good job. Some sections of the roads are very rocky and on these sections it is necessary

to have a crew of about four men to follow the grader and bounce rocks. An alternative, which we are very much opposed to doing, is to use the blade to work the oversized rocks off the road. This procedure can be done by reaching out on either side of the road pulling in soil and then working the oversized rocks back out. This results in the destruction of plant life near the roads and an unsightly accumulation of rocks along the shoulders. It is our desire to have as small a road shoulder as possible so that the desert will start right at the edge of the road. But this cannot be done without additional assistance. Last year these sections were not graded. Maintenance consisted of dragging with a broom drag. This helps a great deal but does not remove the larger rocks which are sprouting up all along these sections. Removing them by hand would be more expensive than removing them with a grader and crew.

Last year we did not keep up with the roads. We were constantly, both actually and figuratively, losing ground. This year we will have no funds for road work. Next year we may have no roads, at least no roads that the Service can be proud of.

Cooperating Government Agencies

Two Field Examiners of the General Land Office spent several months investigating mining claims in the Dale mining district. Many mines were examined, quite a few of which they believe are valid locations. This office was able to obtain from these men much valuable information about the exact location of mining claims and section corners.

The disappointing part about these investigations is that this office has not received information about the critical areas. These areas we know have been worked but apparently not yet reported. Many of Mr. William Keys' holdings are critical, but the Regional Field Examiner will not hold hearings to determine the validity of these claims as long as Mr. Keys is confined in the penitentiary. Mr. Keys' sentence was one to ten years, so it is possible that no action will be taken until 1953. We cannot help but wonder if the Regional Field Examiner would feel the same way if Mr. Keys had received a life sentence.

Research and Observation

Wildlife is definitely increasing in the monument. During the period from the fall of 1940 to the summer of 1942 the Custodian did not see any Desert Bighorns in the monument. Last year he saw over fifty sheep. This summer is the first year that mule deer have regularly been seen in the monument. Other game animals are increasing in proportion.

As pointed out in this report under another section, we do not take credit for providing the protection which has made this increase possible. We believe it is due primarily to the cessation of mining operations. The individual miners always have felt they had a right to live on the country. The larger operators, however, were the greatest offenders. The regularly hired hunters to supply the camps with meat. An informant reported on one occasion in which one

on which one of the hunters killed twelve bighorn sheep at one water-hole.

Restricted grazing has left its mark on the monument. Within a few years the over-grazed areas will be greatly improved.

A spring of very low rainfall -- 0.97 inches -- does not appear to have affected plant life other than a much reduced production of annuals.

Protection

We would like to take credit for having provided some protection for wildlife which is very definitely increasing in the monument. However, with one-fourth of a Ranger for 1310 square miles, we know we cannot take any great amount of credit.

The increase of animal life is due to the lack of miners and other residents in the monument, and to the gasoline and rubber shortage.

Actually, with the present status of privately-owned lands, the monument cannot be protected. Even with a large protective force it would be impossible to prohibit hunting on one square mile when the four adjacent square miles were open. As long as the general public does not know that monument regulations do not apply toprivately-owned lands, there will not be too much hunting. If this fact were to become known, as there is a good chance it will, the Park Service may as well give up and admit that the dictates of the Congress are not and cannot be complied with. This situation certainly puts the local administration on the spot.

Forest Fire Protection

The fire protection problem was helped considerably with the establishment by the County of San Bernardino and the State Division of Forestry of a fire station at Twentynine Palms and a fire patrol in Morongo Valley. These installations make available for fire suppression in the monument one large and one small pumper and two experienced fire-truck operators.

The monument, however, lacks fire detection facilities. Due to topography and the monument road system, the one fire patrol cannot cover but about a half of the high fire hazardous area. Moreover, because of poor radio transmission and reception in this general region, we are unable to keep in communication with the patrol car which is equipped with a 10-watt transmitter. The Navy finds that at times their 125-watt set will not get through to any military establishment, the nearest of which is at Palm Springs. It may require a 50-watt mobile set for consistent results.

James E. Cole,
Custodian.