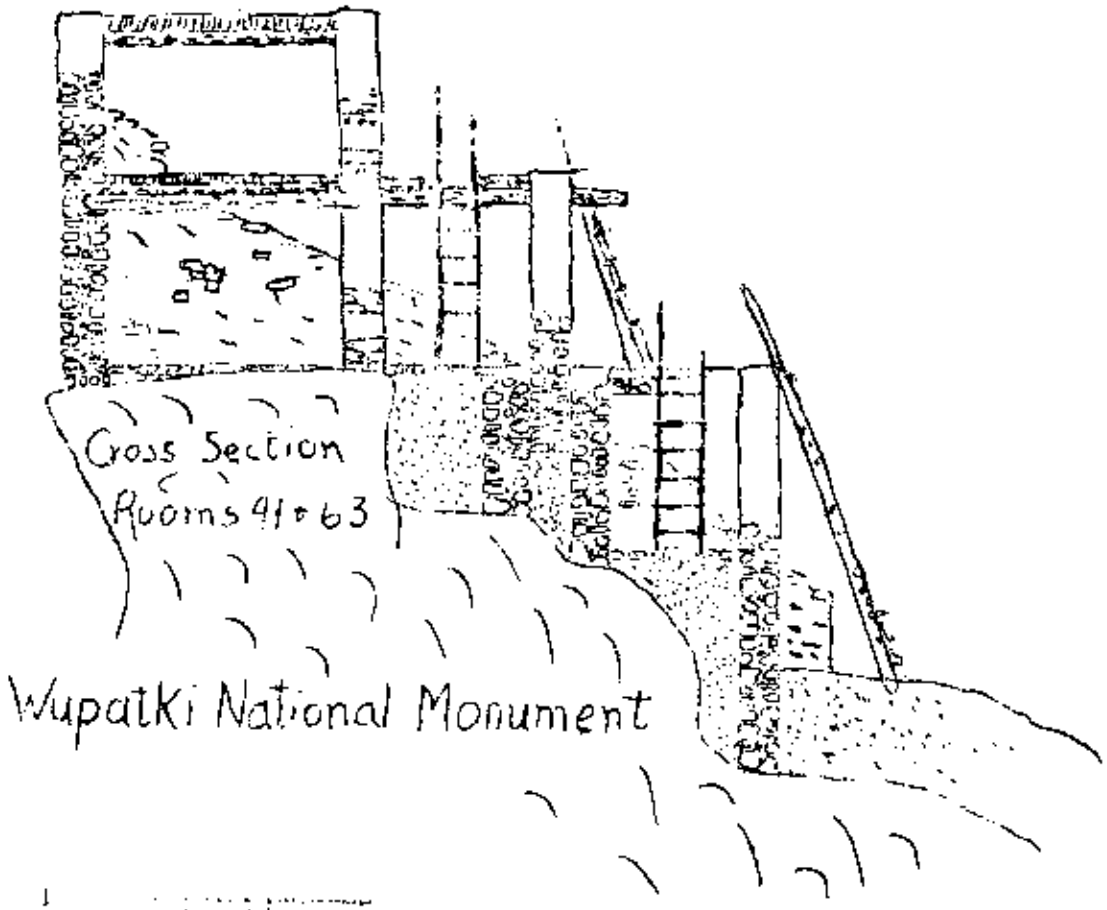
Southwestern Monuments

Report for June, 1934



Wupatki National Monument

SOUTHWESTERN MONUMENTS
REPORT FOR JUNE
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UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
SOUTHWESTERN MONUMENTS

Coolidge, Arizona, July 1, 1934

The Director,
National Park Service,
Washington, D. C.

Dear Mr. Director:

A very busy June is disappearing around the corner and the following report will present an account of what has been happening during the month among 25 Southwestern Monuments. First, we will outline some general activities not related to any particular monument, then follow with the reports from custodians telling what has been going on in their various bailiwicks.

At the time of preparation of the report for last month we were in the midst of preparing our Six Year Program. This work carried over into the first few days of June before it was completed. Justifications for 25 monuments ran into sizeable volume before we were through.

Added to the Six Year Program, there came the call for final estimates for the fiscal year 1936. These were prepared and sent to the Washington Office during the month.

One June 4, news broke upon us that CCC Camp SP-6A of Tucson was ours and that it was to be moved to Chiricahua National Monument becoming our CCC Camp NM-2A. The Boss and Chief Clerk Hugh Miller made a trip to Chiricahua on the 6th, returning the 7th, on business pertaining to the organization and work program of this camp.

On the 12th, Asst. Sup't. Bob Rose left for Chaco Canyon National Monument on business connected with the close of the Public Works Program, equipment inventories and other matters. He returned to headquarters on the evening of the 17th.

The Boss left headquarters on the 14th meeting Mr. Vreeland on the ground at Navajo National Monument. After reviewing problems there, he circled around to Aztec, Bandelier and thence home. Enroute to Navajo he included Montezuma Castle where Ranger Frank Fish and family have been during the month and found them enjoying their new assignment very much. The Boss will give his own account of his field trip later in this report.

For several weeks requests have been coming in for information circulars on Montezuma Castle National Monument. Some 2000 of these have been

prepared, most of them going to Montezuma Castle for distribution to visitors. These circulars are appreciated by peolle who like them as a souvenir. Upon arriving home, these information sheets give a brief review of the story of the Castle and serve to fix the more important highlights correctly in the visitors' minds. Several hundred of the circulars were sent to Miss Grace Sparkes, Secretary of the Prescott Chamber of Commerce. She writes that their "Official Greeter" finds them of great value. This man meets all out-of-county and out-of-State people and informs them of the interesting things to see in that part of Arizona. Miss Sparks has just ask for an additional supply for distribution to visitors to the "Frontier Days" celebration to be held early in July.

For some time the subject of a manual for new rangers and other members of our personnel, has been under discussion. This manual would contain a well written article on each of the monuments together with such general information and instructions as would be appropriate. From the various letters and articles in monthly reports and other files, much of value is already available. Two articles entitled "Some Problems on Guided Trips" and "Some Problems on Public Speaking" which you will find attached to this report, were mimeographed with this special manual idea in mind.

We were pleased to have Dr. H. L. Shantz, President of the University of Arizona, visit us at headquarters for about an hour and a half on the 10th. Matters pertaining to personnel and developments at Saguaro National Monument were discussed. Early in the month we also had the pleasure of a visit from Carl A. Moesberg of the Department of Agriculture at Sacaton who is the donor of the Moesberg Archeological Collection on display at Casa Grande.

The most important personnel matters during the month consisted of the appointment of Mr. Earl Jackson as Custodian of Bandelier National Monument. Earl was on the archeology register of the Junior Park Naturalist list of eligibles. He has had several seasons experience as temporary ranger and is not new to us. He completed requirements for the degree of Master of Arts at the University of Arizona in June. We want to take this occasion to welcome Earl in our organization. Reference to the report from Bandelier will show Earl is rapidly getting the drop on his problems there.

Each winter the Heard Museum of Phoenix conducts a series of special lectures for people interested in Archeology, History, Geology, Art and other subjects. An invitation has been extended to us to supply one of these programs taking as our subject the activities of the National Park Service in the Southwest.

The employment of Miss Mabel Blake as emergency stenographer at headquarters was approved for one month while approval on the employment of Mrs. Viola Turner as Public Works Clerk-Stenographer at Aztec was received.

By June 30th all office work was current but was so only because we worked long hours, nights and Sundays, took no days off for several weeks, and employed an emergency clerk during the month. Without this clerical assistance, it would have been impossible to have work current with our Six Year Program, final estimates for fiscal year 1936, business matters pertaining to two CCC Camps, necessary trips afield previously referred to, keeping up matters relating to the regular appropriations and closing the books for June and the Fiscal Year just past. I think the fine spirit of cooperation and willingness of all to see us through the month with its volume of work is deserving of mention and is appreciated.

This month by way of a welcome we are going to lead off with Earl Jackson's report from Bandelier:

BANDELIER NATIONAL MONUMENT: Earl Jackson, Custodian, Box 669, Santa Fe, New Mexico.

"Dear Mr. Pinkley: - I arrived at Bandelier National Monument on June 21, and took up my duties as custodian on June 22. The last few days have been spent primarily in getting acquainted with that portion of the Monument readily accessible from the Park Service office and the parking area. This month's report cannot be as complete as it is hoped to make those of the future.

"During the first half of the month no accurate travel record was kept; however, from June 16th to June 25th, inclusive, we have a complete travel record which shows visitors for the ten days included to be 662. Proportionately, we would reckon travel for the month to be 2052.2 (of course we could drop the .2) In June of 1933 Bandelier had only601 visitors for the whole period, but that, of course, was before the days the road entered Frijoles Canyon.

"Roads of the district are all passable and in fair condition, but are quite dusty and corrugated. The first light rain of the month fell on the 24th, settling the dust for a few hours and relieving the oppressive heat of mid-day, but not of sufficient duration to help much in reducing or preventing fire hazards. The Rito de los Frijoles is said to be the lowest in many years, having practically ceased running at that unusually beautiful waterfall, the Lower Falls.

"Two fire calls were answered during the month by the C.C.C. fire crew, which is by now quite a well-organized unit. Both blazes were started as lightning fires. The first, on June 1, was a burning snag, was reported at 4:00 P.M. and suppressed by 6:00 P.M. The second was reported on June 17 from the lookout at St. Peter's Dome, sighted near the Los Alamos road on the Ramon Vigil Grant at about 2:00 P.M. The fire crew found a burning snag caused by lightning. The fire was out by 6:00 P.M.

BANDELIER CONTD:

"Mr. Pinkley arrived here on the 22nd, joined on the 23rd by Mr. Attwell, and they spent two busy days going over active and projected development in the Canyon. Herbert Chase, the new C.C.C. Camp superintendent, arrived on the 23rd for a preliminary sizing up of his job.

"Our visitors seem to have the habit of bestowing themselves upon us in large groups. On June 17 a party of 125 nurses from the Indian School at Santa Fe were in. This group came before I arrived, but on the 23rd came a group of 45 students from the University of New Mexico Summer School Session. They were all live wires, and made a long trip up the Canyon to Ceremonial Cave. Here, most of them made the arduous climb up the four flights of long ladders and enjoyed the view in literally breathless interest.

"I have to break down and confess I might find myself severely handicapped trying to meet, talk to, guide, and entertain a run of two thousand visitors a month, were it not for the help of the C.C.C. Camp. Two are helping me on special occasions like Sundays and holidays, while one helps most of the time during the week. With this valuable assistance I have the chance to greet and talk to almost everyone who comes, and know that all will receive some service.

"While rummaging through the files this evening I have run across that for which I was almost desperately seeking, a large envelope left by the late Edgar Rogers containing a number of pamphlets and scientific papers setting forth practically all the available scientific and historic data on the pueblo aborigines of this district. In no time now I can have some well organized sets of information to confide to and hurl at the tourist.

"People are still having difficulty finding enough signs leading to Bandelier. I believe most of the confusing points along the road have been located, and within a week we expect to have signs up which will end the trouble.

"First impressions of the Ritl de los Frijoles Canyon, which struck me the other day for the first time as I suppose they would the average tourist, were 100% favorable. The road leading down the slope to the Canyon floor is excellent, the frowning cave-pitted cliffs and green tree-studded floor of the Rito are beautiful, the drinking water is superlative,--but I must sign off or be accused of trying to be a poet. I must say, however, that the people of this country around Santa Fe are exceedingly hospitable and friendly, and appear to want to help this monument grow. Until next month, Sincerely, Earl Jackson, Custodian."

for July is going to be. If Earl's count for 10 days can be taken as an index, I think we can say the travel is going to be at least three times what it was in the old days of the 5/8 mile trail. In all probability, as it becomes more generally known that the roads are open to the floor of the Canyon, the index is going to swing to 4-to-1, or even 5-to-one.

In regard to people visiting the canyon, their length of stay, the number desiring to camp over night, and etc., Earl has a new field for work and observation. Specifically, is the fact that people can reach the Canyon floor by car in a matter of minutes going to make them want to stay much longer than before ? Are there going to be campers every night to warrant a regular schedule of campfire talks and entertainment ? Is the daily turnover of campers going to be 80%, 100%, 50%, or some other figure? These are facts we need to know before we are masters of the situation, and the new road to the Canyon floor makes them entirely different from the days of the trail, but just how different ?

WUPATKI NATIONAL MONUMENT: Dr. H. S. Colton, Custodian, Flagstaff, Arizona

"Since the C.W.A. projects ended on the 12th of April, no one has been stationed on the Monument. There is no ranger or Resident Custodian, and the Monument is open to vandalism. Since there is no one appointed to see that visitors sign in the registration books that are placed at Nalakihu and at Wupatki, and not everyone signs. One hundred visitors signed at Wupatki alone in May which means the travel count would have been a great many more. The book has not been looked at for June. All pencils placed by the book are stolen as fast as they are supplied, even when tied with a string. The Custodian made two visits during the month and members of the Staff of the Museum of Northern Arizona made several other visits. So far, no vandalism has been reported.

The Museum of Northern Arizona has made an exhibit of Wupatki material in a store window next to the Monte Vista Hotel with a striking drawing of Wupatki in pastel by Virgil Hubbert, as a background.

The Custodian recently explored the country across the Little Colorado fromWupatki and discovered a point of a mesa covered with hundreds of petroglyphs, some of the finest in this part of the Southwest. He has sent Milton Snow, who was photographer on the C.W.A. Wupatki Project and who is now employed by the Museum, down there to make a series of photographs as a record. The pictures range from Basket Maker through the Pueblos to Navajo. Unofficially, we are calling the point, Inscription Point. There are three important places near Highway 89 containing some of the finest petroglyphs in the Southwest. These are Picture Cove near Crack-in-rock, Picture Rock near Willow Springs on Highway 89, and this newly discovered place. What can we do about it ? Harold S. Colton, Custodian."

WHITE SANDS NATIONAL MONUMENT: Tom Charles, Custodian, Alamogordo, New Mexico.

"Dear Boss: - We were counting on a vacation this month, so far as visitors were concerned but they have still been coming in an uninterrupted stream. The only difference that we can notice is that on the hot days they hold their partiesmin the evenings or at night instead of in the heat of the day.

"The summer evenings are delightfully cool at the Sands. It seems strange that one can go out and climb up on a big sand hill at Sundown and find it cool where only a few hours before the same place was scorching hot. These travelling scientists tell us that this fact is due to the exceptionally rapid evaporation there. One of them, this month, claimed that there is amonia in the sand and that it is really a natural refrigeration plant. It is a fact, at any rate, that even in the hottest part of the day the Sands are damp and cool a few inches below the surface. One day this month I took two thermometers along with me to do a little experimenting. At the top of the ground it was 110 degrees F; at the bottom of an eight inch hole about a foot from the other thermometer it was 23 degrees cooler, and down at the bottom of the hill at the water's edge it was 70 degrees, or 40 degrees cooler than it was on top of the hill.

"On account of the cool evenings at the Sands many groups gather there almost every night. Most of them take their lunch; many stay until midnight, and some roll down their beds and sleep in the cool sands until morning. They invariably report a peaceful rest for they have the assur- of neither snakes or insects of any kind.

"We took a picnic supper to the Sands one Sunday evening this month and found 13 carloads, 65 people there eating their lunch. On the 12th of June, 75 young people of the M. E. Sunday School had a picnic there. Twenty five or thirty of the Girl Scouts were out one night this month; The District Court officials, in session in Otero County have spent several nights at the Sands, one time there were 38 in the party. The New Mexico School for the Blind gave a farewell party there the first of the month, numbering about 100. The Superintendent of the School claims that no place else can the blind children turn themselves loose with such freedom. Here they may run and jump from the top of the tallest hills without fear of injury. It is a new life to them.

"We have been especially interested in our scientific visitors this month. Early in the month Dr. and Mrs. A. H. Wright drove in from Cornell University, Ithica, N. Y. The Doctor was in search of something with a name as long as this sheet. He said that for identification I might call it "Dr. Brown's Pugnosed Snake". About six or seven of these snakes have been seen in the United States, one of them being at "Walter's Lake" near the White Sands, 1927". The snake is small, harmless and nocturnal. The

WHITE SANDS CONTD:

Doctor did not report as to his findings but the description sounds like this pugnosed snake might be out here with our white mice which are also nocturnal.

"A few days after Dr. Wright's visit Alice Ottley, Botanist from Wellesley College, Massachusetts, with two assistants spent several days with us. These ladies were deeply interested in the unusual plant growth in the Sands. They purchased almost every different picture of the Sands that they could find, took samples of the flora, then drove on bound for Mexico City.

"Mrs. Grace A. Walker of Pennsylvania was another interesting visitor. A well known traveller, lecturer and singer, Mrs. Walker has visited practically every place of interest in the world, having gone twice around the world on lecture tours. After visiting the Sands she writes back: "Words cannot express our surprise on viewing this 9th wonder of the World, the White Sands National Monument. I enjoyed the Sands by sunset and by moonlight--I was simply enthralled by this beautiful white way. I have never enjoyed a moonlight picnic as I did this one on the White Sands. I shall return."

"There seems to be a notion extant that the public determines the policy of these national monuments. If so, then we are slated for a "swimmin hole" at the Sands. Last week a group of boys dug a hole down two feet to water, fixed 'em up a regular beaver slide, They would run and play over the soft dunes until they would get to fever heat and then cool off in the pool. It looked inviting, we must admit. But swimming pool or no swimming pool, the youngsters always enjoy the White Sands. They cry to go back and they are never willing to leave.

"But there is always "a fly in the ointment". These crowds leave trash and decayed food at the favorite camp ground. It is constantly getting worse. The Chamber of Commerce is getting in full swing with the distribution of their "gadgets" - a small cellophane sack of White Sand attached to a card of description on which is printed "no snakes, flies or other insects." When the Chamber of Commerce first put out their statements they were true but last Sunday I found a plate full of spoiled meat tucked away in the shade of the table. I discovered that the statement about flies was not true. Something has to be done. It looks as if I am going to have to ask the Chamber of Commerce to withdraw their gadgets or some way must be worked out for the Park Service cleaning their kitchen a bit.

"Well Boss, our last child was married last week. An incident proved to me that a prophet is not without honor save in his own sand hills. The girl wanted to be married out in the prettiest spot of the snow white sand dunes, just as the Moon came over the mountain, but the boy said "No, I've been raised on White Sand." So, what a beautiful piece of publicity we

had to forego. But what matters ? We had six children; they have doubled and now we have twelve. We had the pleasure of putting the six through all of the grades - 48 years, then all of them through high school - 24 years- then 26 years of college--a century run. It is worthwhile, every day of it, even though the last boy did not want to be married out at the White Sands. But there is still some consolation. Our two year old granddaughter frequently comes over from Las Cruces with her parents and as far as she can see the White Sands she cries, "Granddaddy's Sand Pile". It is a rule that she may stop and play there and last week when her father refused she cried most of the way into town. The grandchildren are still loyal. Yours, Tom Charles."

We wonder if Tom won't also have to take back something about snakes too ? While it would be intensely interesting scientifically, to find "Dr. Brown's Pugnosed Snake" in White Sands National Monument, it would be a little hard on the advertizong!

Referring to Van Denburgh's "The Reptiles of Western North America", Vol. 2 (1922), pg. 777, we find "Pug-nosed Snake" as the accepted common name for these snakes. Up to that time five specimens were known. Of these, three were reported from Arizona, one from near El Paso, Texas and the one Tom refers to from the shores of Lake Walters near White Sands.

In regard to the explanation as to why the Sands area quickly cools as soon as the Sun disappears, there are other interesting angles. In the study of Physics we find various principles that might be expressed as follows:

"Low absorbers of heat are low radiators"

"Low absorbers and low radiators may be excellent reflectors"

"High radiators are high absorbers"

Let us speculate a few moments on the meaning of these statements. Most of you are familiar with how a snow-covered area will reflect a dazzling glare of sunlight even in zero weather. One can get parched and burned from this glare of reflected light from the snow, yet the snow itself will be so low in temperature as not to melt at all. Further, you are most of you familiar with how a match can be lighted with a reading glass, or a mirror concave in surface in shape, yet neither the lens nor the mirror get as hot as a burning match, or even change much in temperature. It is even possible to reflect brilliant light from a smoothly polished surface of ice, or to make a lens that will converge light and heat into a spot. The great ice fields of polar regions reflect a great portion of sunlight reaching them back into space.

WHITE SANDS CONTD:

This explanation would largely apply to the White Sands. The white gypsum sands are high in their quality as a reflector of light and heat. This means that a great part of the light and heat energy striking these sands during the day is reflected back into space. During the day this reflected light and heat makes it uncomfortably warm for people on the Sands.

Now, while the Sands will reflect this great amount of heat and light and make people uncomfortable on them in the daytime, this does not mean that the sands themselves become "sizzling hot", for like the ice and snow-covered regions on a zero day, they can reflect this heat and light without the Sands themselves rising to excessive temperatures. With most of the heat being reflected back into space there is not enough retained by the sands to penetrate and heat them at any great depth. This would explain why Tom got quite low temperatures in those shallow holes which he dug. Too, doubtless as Tom suggested, evaporation of underground water will contribute somewhat to the cooling. This would be a factor particularly where the sands, gravels or other formations permit of circulation of air.

It is interesting to speculate on what difference it would make if the White Sands were coal black and had to be called the "Black Sands". How would temperatures and other conditions be affected ? This one thing would be true. Black materials like black cinders or lampblack are good absorbers of heat. After a long stretch of warm sunny days, a great deal of the heat and light energy would be absorbed by these black areas leaving little to be reflected back into space. Absorbing this heat energy, the "Black Sands" would rise to high temperatures. Days on end of this would probably mean the Sands would hardly radiate enough heat during the night to account for all received during the day, and after a few summer months the sands would become warm at considerable depths. Too, after sundown, the rather highly heated "black sands" would have absorbed so much heat as to take perhaps several hours after sundown before temperatures would be comfortable. Where on White Sands the sands are cool immediately after sundown, on Black Sands it would be several hours before crowds could enjoy themselves. Too, on "Black Sands", Tom would find it pretty hot 12 to 24 inches below surface at midday where on his White Sands which are fine reflectors, he finds it delightfully cool.

These points are discussed at length to show that the principles of Heat Engineering and Physics applied to the problem will show that those conditions of "Delightful temperature immediately after sundown"; "Cool at midday some 12-24 inches below ground surface"; "Picnicers can spread their dinners on sands after sunset and find Sands comfortable to sit upon"; - these principles show us that these conditions are what are to be expected. Other special factors such as Amonia, etc., may enter, but I believe these specialized conditions aren't absolutely necessary and that

WHITE SANDS CONTD:

the mere facts that Tom's Sands are WHITE and not "black", and that light colored surfaces such as the Sands are excellent REFLECTORS of heat and POOR ABSORBERS will just about explain all of the problems about temperatures thus far brought up. (R.H.R)

CHACO CANYON NATIONAL MONUMENT: J. L. Patterson, Acting Custodian, Crownpoint, New Mexico.

We have the following good report from the Chaco:
"Dear Mr. Pinkley: - As Custodian Julian is on annual leave this month's report will be an amateur attempt.

"Weather conditions here have been almost perfect. A heavy rain fell during the last days of May and a few light showers in June have relieved us from any excessive heat. Approach roads are all in good condition. Assistant Sup't. Rose visited the Monument on the 14th and 15th and arranged for supervision of the Chaco during the Custodian's absence. Mr. Rose assisted in a survey of C.W.A. tools and equipment at this time.

"A small drain ditch to carry off rainfall has been dug back of the reconstructed rooms in Pueblo Bonito which are being used as a museum and an office. During the recent heavy rains the water collected back of these rooms and ran through the walls flooding the office and depositing mud on official files and, worst of all, on some of Hurst's cherished books. A Navajo workman was employed for two and one half days cutting unsightly weeds from the courtyard and the are a adjacent to Bonito.

"Our Public Works Program was brought to a close on June 7th as only a small balance of our appropriation was left on that date. This project was the first step toward the building of the much needed fence for the protection of the Monument from overgrazing. A shipment of posts and wire was hauled 65 miles from the railroad point of Thoreau and stored on the Monument. As the boundary line crosses high mesas and deep canyons it will be necessary to construct some roads and trails in order to get fencing material to the points where it will be used. These roads were located and campsites selected with reference to water and fuel supplies. About two miles of line were cleared through brush and a heavy growth of Juniper trees. Approximately one mile of posts were set extending east from the corner between Sections 2 and 3 on the north boundary line. As soon as funds are made available we are all ready to go to building fence with little loss of time on account of further preliminary work.

"A group of FERA workers are on the ground today and will begin erosion control work along Chaco Arroyo on alienated lands. This work will be much appreciated by the Service as the first projects undertaken will look to the protection of Kin Kletsoi and the trading post at Del Arroyo.

CHACO CANYON CONTD:

"This month our visitors numbered 204 coming from thirteen states. Only one foreign country was represented on our register but visitors from Japan are not frequent so Mr. Watanabe of Sappovo(?) Japan gets special mention. Dr. and Mrs. J. H. Stewart of the Department of Anthropology, University of California at Berkeley, arrived on June 1st and went through the museum and the ruins on the following day.

"Ranger Gay Rogers of Aztec accompanied Mr. and Mrs. Wm. H. Hunt of Cleveland Ohio on a visit which will be long remembered by the writer as one of the most enjoyable in his experience. A recent visitor (a woman of course) remarked "Just to think that we would have missed seeing these wonderful ruins if that lovely little lady at Aztec had not insisted that we go to Chaco Canyon". Team work is what counts. Some day we're going to send a party to Aztec just at lunch time and have them insist on Gay showing them all of those 500 rooms and 2 kivas.

"An interesting visitor was Jake Edway, an educated Navajo who, as a boy, worked for Richard Wetherill on his homestead which originally included the sites of the Bonito and Del Arroyo ruins. Edway had not visited the Canyon for many years and expressed surprise at the extent of the erosion which has taken place. He described the Chaco Arroyo as being , in his boyhood days, about two feet deep and six or eight feet wide. Now it is thirty feet deep and in places two hundred feet wide.

"A letter from the Acting Director advises us of the gift to the Park Service of the tools and minor equipment left at Chaco by the National Geographic Society's expedition after excavating Pueblo Bonito. Needless to say, this donation is highly appreciated.

"I am seriously concerned about the condition of the high wall on the north side of Bonito. During heavy rains considerable water runs under this wall and finds its way into what is apparently an unexcavated room below the present floor level. I believe that this condition should be remedied soon and steps taken to protect this high wall by better drainage and perhaps by a pier set on solid ground below. I am digging (during spare time between visitors) a small surface drain as a temporary measure until such time as some more experienced person can examine the wall. Respectfully submitted, J. E. Patterson, Acting Custodian."

Calling himself an amateur at report writing at the beginning, I think we'll agree that Mr. Patterson calls attention to some pretty interesting and important happenings in the Chaco. Fighting the development of meander loops in the Chaco stream is an interesting and important problem. It appears that in recent years the stream is torrential at intervals during and following rains whereas in years past the waterflow was more moderate

AND LASTED over a greater portion of the year. It is interesting to see a geologic process which materially modifies a region so much even over 25 to 50 years time. Checking such rapid erosion and stream meander development will be a real problem.

PIPE SPRING NATIONAL MONUMENT: Leonard Heaton, Acting Custodian, Moccasin, Arizona.

"Dear Boss:- In reporting for this month I want to say that I was away a week at Navajo Lake attending the annual Scout Week in Camp which began June 18th and closed the 23rd. It is worth anyone's time to take a week off with the boys in Camp as it is conducted under the Boy Scout Camping Program. And what an inspiring sight it is to see those 12 year old boys, 328 of them, stand at attention when Old Glory was raised and lowered each day. I am sure that the Good Old Flag will have defenders as long as there are boys being taught as are those in the Scout movement of America.

"The Travel record is as follows:

Record #1 (Other than local)

N.P.S.	10
Arizona	46
N.F.S.	2
California	20
Utah	22
Texas	6
Iowa	1
TOTAL	107

Record #2 (Locals)

By cars	496
Horseback	57
TOTAL	553

TOTAL #1	107
" #2	553
TOTAL FOR MONTH	660

"Travel last month was 632 which gives us an increase of 28 over last month. I feel that the people are showing greater interest in the place this year than last, especially local people as there has been several donations made to the Monument of pioneer value and age. One of these gifts came from the decendants of Anson P. Winsor, of his picture. You will recall that Mr. Winsor was the man that was in charge of the building of the Fort and lived here for several years.

"We have not completed the division of the water as yet the reason being that the division plateis being made up at the San Francisco Office and we have not yet received it, nor have we heard from Mr. Cowell as to when it will get here.

"I have had the water running through the pipeline as mentioned in my last report, carrying out some of the irrigation. My fears that it would be impossible to get the water to the campground were relieved when Engineer Cowell came out on May 30th and made measurements for the plate and we are

PIPE SPRING CONTD:

making the Weir so that the water will go over it at four inches below the surface of the ponds. This will give us the head necessary to get the water to the upper end of the camp ground. From the way that Mr. Hall left the division box and said what the height of the water would be, I knew that our water would not go where we wanted it to. We will now overcome that difficulty with the tall weir which will be made of sheet brass.

"The Indian Service has had delivered here 5 miles of 16 gage sheet-iron pipe, tarred to carry the 1/3, or cattlemens' water to the south side of the Reservation. I gather from talk that the pipe will not be put in by the cattlemen, one of the reasons being that they feel that the pipe will not last more than 3 to 5 years in this mineralized soil and another reason they advance is that the Indian Service they say told them that the pipe would be galvanized, screw-jointed, and be 4 inches in diameter.

"Well, the pipe is here and the tar under the hot sun is running together and lessening the value of the pipe for large pieces of tar will be broken off when it is moved.

"We have had some good rains on the 5th and 6th, and some more on the 24th of the month but still more is needed to fill up the water holes on the desert. The feed was almost burned up and many cattle were getting so poor that they would not last much longer. With the rains we have been having, they will come through in fine shape for the Fall market.

"Mr. Langley stopped in for a few minutes on the 23rd on his way back from Tonoweap and asked about the FISH. He said he would ask the Govt. hatchery at Springdale, Utah to get us some more. Well, I hope he can get them as I have now not more than 25 in the three ponds. Sincerely yours, Leonard Heaton, Acting Custodian."

We're glad to see the interest of local people aroused in the old Fort, Winsor Castle, as Leonard states. In that locality pioneer history seems to live in the minds of the people to this day. The placing of old historical museum materials in Winsor Castle for display will increase peoples interest in the place. We're hoping for a residence to be allowed at Pipe Spring for at present the best we can do is to supply living quarters in the Old Fort. That's undesirable to say the least, but will have to hold until the housing problem is solved.

MONTEZUMA CASTLE NATIONAL MONUMENT: Martin L. Jawkson, Custodian, Camp Verde, Arizona.

Dear Pink: - Montezuma Castle is getting to be itself again. We have

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had 1698 visitors for the month compared with 1448 for June, 1933, or an increase of 17 percent. Our out-of-State count for this month is also higher than usual for this time of year. The report that some research work has been done here is bringing in quite a few visitors and that is as it should be. However, this puts us right jam up against a stone wall as to giving the visitor the service to which we think he is entitled. This is for the reason that two thirds of the visitors are looking over the newly excavated Ledge Rooms and the other third up in the Castle, making it a physical impossibility for a ranger to conduct both parties through at the same time when they are several hundred feet apart. In years past we have been in a position to press one or both of our sons into service during the summer months whether or not we had any funds with which to pay them. But now neither of these are available any more, and with the added work brought on by the newly excavated rooms we are entirely at a loss to know how we are going to deliver better than about 50% services for the next 60 days which will be our peak time in number of visitors.

"Superintendent Pinkley of the Southwestern Monuments spent part of the afternoon and the night with us during the month. Most of the afternoon was spent in inspecting the work that is going on here along with some proposed work. We did have an opportunity to take up some administrative matters in the evening. We have thought of a lot more things since he left, so come again, Pink..

"Associate Engineer Attwell, his assistant, Borden, and Construction Foreman Harry Brown arrived on the 4th to begin construction on our three stall garage along with preparing for other projects that have not yet been approved. Attwell and Brown put in a couple of days running down employment agents to get their men from and finally found that they would have to go to Prescott, 65 miles, to get them. But 65 miles doesn't mean a thing to Walt and Brown, so to Prescott they went. However, Walt said that 65 miles was entirely too far to drive just to hire a few men so inorder to make the trip worthwhile, appeared before the County Relief Board and persuaded them to send out 15 F.E.R.A. men to work on the revetment wall along Beaver Creek. The men are to be on hand the 1st of July. Jackson."

We now have a word from Construction Foreman Harry Brown on the progress of the work. "My dear Mr. Pinkley:- Just a word in regard to the work. The garage building is progressing nicely. We are delayed somewhat for lack of material but if we get confirmation on the contract for material from Washington within the next day or two we will be alright. The walls are about 50% completed.

"The revetment work is beginning to shape up. We will have completed by the end of the month about 200 feet of the bank revetment. I believe that it is solid enough to withstand any floods than they may have here. Before we can start on the dyke revetment we will have to have the engineers

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give us the grade and line. I am expecting Mr. Attwell any day now for this work.

"Is there any way to hurry the Landscapers into approving the trail and steps to the ruins.? I would like to get that job started as soon as possible. Very truly yours, Harry F. Brown, Foreman."

Mr. Jackson adds an extra sheet to his report with the following:

"On the 7th, Brown had a bunch of laborers at work on the foundation for the garage and on the 11th, the stone masons were put to work. Ath this time the walls are about two thirds completed. Plans were gotten out for the steps to the ledge rooms but have not yet been approved.

"Landscape Architect Langley made us a short visit during the month and has since made some good recommendations concerning the water situation here. We are hoping he will feel better on his next trip as we have managed to cover up the white dirt that we dumped into the arroyo in front of the Castle during the recent C.W.A. work. While Langley agreed that the arroyo should be filled, he complained very bitterly about the white dirt marring the landscape.

"Norman Jackson was working as extra ranger during the first part of May. He was showing visitors through the Castle at the time of Dr. H. A. Kelly's visit (Dr. Kelly's visit was mentioned in my last month's report. He was connected with the Johns Hopkins Hospital that later developed into the Medical School of fame). The Doctor has since forwarded to Norman a very interesting book "Birds of New Mexico" by Dr. Florence M. Bailey who is an authority on the birds of the Southwest. He also sent a year's subscription to "Bird Lore", the official organ of the Audubon Society. Both the book and the magazine will be a great help to us in classifying the birds of the Monument and we all join Norman in extending our thanks to Dr. Kelly.

"Ranger Fish is inclined to think that the Castle put one over on us in that we have been believing that all the material used in the construction of the building was carried up from below. He has found a stratum of clay in the formation that is in the same level as the Castle and insists that they used this clay in their mortar and saved the labor of carrying that much up from below. I am inclined to agree with Mr. Fish and believe that you will back me up saying that in doing the repair work on the Castle several years ago that we found numerous instances where the Montezuma inhabitants had taken several shortcuts to save labor.

"Engineer Attwell, accompanied by Mrs. Attwell and son Jim, were in to see us again on the 18th, and while here, authorized us toespend $4000

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on the revetment wall along Beaver Creek. Men were immediately put to work on this wall. The work here seems to be progressing nicely, and to date have found nothing to start an argument about. Jackson".

We wonder if some of the increased travel count at Montezuma Castle National Monument ? These signs give the tourist assurance that he is headed in the right direction where formerly, if he was persistent enough he might have found a filling station operator who could give him directions that could be followed. Of course these signs mean little to those of us who know every little road in the Southwest but they surely do to the motorist who is quite uneasy in launching off on a 50 to 75 mile trip over unsigned roads.

EL MORRO NATIONAL MONUMENT: E. Z. Vogt, Custodian, Ramah, New Mexico.

"Dear Frank: - In looking over my last monthly reports to You I have decided that they are the worst that I have ever written. There seems to be no rhyme, reason or regulation to my wandering fancy when it comes to pecking off what I have to say. So I have reformed, and hereby promise to keep myself more closely to Monument subjects.

"The month is that one hardest month of the year for moisture conditions. The roads are dry and dusty and are more travelled than at any time of the year. The grass is losing its Spring verdure and the sky remains unresponsive, though cumulus clouds and east winds on some days fill us with hope. While cattle and sheep are suffering in many parts of the state, in this favored region of the mountain foothills I would say that, despite the drying up of wells and weakening of springs and parching of grass and weeds, we are still in a strong position. Compared to other years I have seen in my 30 years in New Mexico, it's not so bad. In fact, in this isolated spot, perhaps 100 miles wide, there is nothing to worry over for another 15 days and by that time we thing the Summer rains will come along.

"Visitors continue to increase at the Monument. More parties are coming all of the time from El Paso, Las Cruces, Silver City and other southern points including Tucson and Southwern Arizona cities. Also many more are coming from Highway #66 via Grants and the Ice Cave. The last week or so, we have had many college folk including teachers, professors and students, not to forget the Indian Service, Forest Service, and Soil Erosion Survey people, including Mr. Hugh Calkins, head of the important Soil Erosion operations on the Navajo Reservation. Some evenings there are as many as four or five parties camped in our coves and sheltered nooks.

"Ranger Peterson has been very busy showing people around our Monument. Most of them take the trail trip of 1½ miles which includes the petroglyph

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and Spanish Inscriptions area. It is difficult without a headquarters building and parking area to group people into parties. While the first party is viewing the inscriptions with the ranger, several other parties arrive and start out to explore for themselves. There are a few who have read about our Monument, or who are with people who have been here before, and they get an adequate idea of the place. Some see but the trail; others the Inscriptions on one side only, while to our surprise, others drive in and view the cliff thinking that there is nothing to be seen at all but the great multicolored sandstone cliff. The efforts of Mr. Peterson and myself to contact all the people and not have them leave without getting a fairly complete idea of what it is all about, are sometimes rather frantic and wearing. We do not like to have anyone leave without pleasant memories and a definite desire to return with their friends and other visitors.

"The road from El Morro all the way through to Gallup, is now completed, while the road to Marque and the South Via Techado has been more improved. Several short bridges and more culverts are serving the traveller and your Custodian has about arranged for the County FERA organization to take over additional work on all approach roads with a plan for up-keep.

"The only piece of road now offering a serious handicap to our visitors is that 12 mile Nature Road from the end of the Forest Service road 30 miles south of Grants to the Monument. We are hoping that either the State or a C.C.C. Camp may come along this summer and complete this pine forest drive into a graded highway. As far as surfacing is concerned, we know that is a long way off we know, but just as we have been trying to get the grading done for 20 years, we will now agitate and scheme for surfacing even though it may take that long to get the gravel and oil. We are not losing sight of the interesting possibility of having the Petrified Forest, Zuni, El Morro, the Ice Cave and Acoma, all lined up on a beautiful road which would lead to these premier spots of varied and unique interest, a drive of 150 miles which would not be matched in all the world.

"Resident Landscape Architect "Chuck" Richey and wife, Ruth, came last Sunday and spent that day and night with us, and part of Monday. We picnicked at El Morro and slowly examined all the features needed to be discussed. Finishing our stone-carved trail, the areas in front of the Inscriptions to accommodate 50 people, approximately, each, the erecting of natural rock and brush barriers in front of the escrituras, the stone steps up to the Governor Martinez Inscriptions, 1726, were considered the projects which might be undertaken at once if we get an approval of FERA work. The slight erosion that has started from the prehistoric hand-and-foot trail cove to the south of the water cove concerns us greatly, but Mr. Richey thought that a dam built to catch the run-off water and shoot it under the ground through an 8-inch pipe into a hole which might be chisel-

ed through the concrete dam into the reservoir, would at least stop the rush of water. The water from the reservoir we plan to draw off regularly through siphoning it out over our filled area now showing green with oats, yellow clover and incipient grass and weeds.

"The administration building, parking area, camp grounds, residence, together with a water well, we think should be brought into being soon but perhaps it will take means from the Public Works Administration to do this.

"On June 12th I went to Atarque and brought up Juan Chavito, half Hopi, half Spanish, and general all around worker, and with him and my son who is back from his year in high school at Santa Fe, started work on moving the blacksmith and tool house we built against the ranger's cabin during the C.W.A. Program. With 1000 feet more lumber which we bought we have about finished moving the old lumber around to a hidden spot near the new and only entrance to the Monument and have almost completed a garage and tool house 20 by 26 feet with a partition in it. All of the nails were salvaged and used so we did not have to buy any new nails.

"Mr. Richey liked the site we had selected to build this useful building and indicated hard by the place he would like to tuck the ranger's cabin when we move it. Thus far, I have not been able to get anyone yo make me a bid to jack up the log cabin and pull it around 1/2 mile to the new site. We think that we will be able to get it moved without taking the logs apart and rebuilding it.

"On June 18 Mr. Richey and I attended the Convention of the Highway 66 Association and were the guests of the Board of Directors along with Assistant Superintendent Lloyd of Grand Canyon, and Superintendent White Mountain Smith of Petrified Forest National Monument. Messrs. Richey, Smith and Lloyd spoke at the meetings though I managed to avoid the honor. In the evening at a banquet, General Hay, Soldier of Fortune and Irish Wit, was the principal speaker.

"During the week before, I went to Santa Fe with the special train of road boosters who invaded the Capital . Some 200 strong, our train attacked the capital with bannered parade, "Finish 66", led by a Hill Billy String band. In the House of Representatives we cornered the five members of the State Highway Commission and the chief engineers, and the need for finishing and oiling Highway 66 was clearly presented to them. Out of a clear sky I was called upon and I did my darndest to unfold the need of an adequate road over good riding surface to the 1000 miles of wonderland from Santa Fe to California, including all our parks and monuments in that vast stretch. Some pledges were made to us by the State Highway officials which we hope will be carried out without much delay.

"The yucca flowers have now withered on our ruins and higher areas, but the grass looks greener at the Monument than at other places, owing to

its protection. The presence of pingue which causes the death of thousands of sheep and some cattle in New Mexico, was detected on our mesa top, though it is so closely akin to snake weed ("yerba de la bibora") that but few detect it.

"The jack rabbits hold nightly feast on our oats and scarcely turn their heads or lift their ears when the coyotes howl down in the valley on these moonlight nights.

"This is one of the rare times of the year and one of the rare years when one can point out to our visitors the three generations of pinon nuts. One of last year's nut bearing cones remain on the trees alongside of nutladen cones, green and sticky with glistening pitch, now the size of apricots, these to bear next fall, while overhead on the very tips of the branches perched on slender spikes one can point out the little cones no larger than a pea forming now for the coming year's product.

"We still look forward to a visit and fresh person-to-person lineup from you but you seem to visit everyplace but here. We hope the day will come when they will give you additional help you should have in the office so you can come up here and enjoy a regular climate and a cool breeze once in awhile. With regards to all, E. Z. Vogt, Custodian."

RANGER ALFRED PETERSON'S REPORT ON EL MORRO:

Alfred Peterson, better known as "Pete", spends the summer months showing visitors El Morro and the Inscriptions, and it is good again to have the usual word from him:

"Visitors: - For the first 23 days of the month there has been an average of about 13 visitors per day, with the number increasing with the approach of the end of the month. The indications are that the number of visitors may equal or exceed, the averages for the summer of 1931 which was the big summer of my experience at El Morro. For this period we have 296 visitors from 16 states and England.

"On Sunday June 17, 75 people visited the Monument. Needless to say, not all of these people received ranger service. They began to come in droves about 10:00 A.M., and continued arriving at irregular periods until the Ranger bid his last party good night after 7:30 P.M. when, hungry and more than tired, said ranger had some much needed nourishment.

"We have had a number of camping parties, the largest group being four parties composed of five cars carrying 13 people, each of which wanted an exclusive spot in which to spend the night. They were finally tucked in various coves, nooks and sheltered places, but none used the little cave - Clam Shell Cave-, the favorite roosting place of Chuck and Ruth Richey. Chuck and Ruth were with us again on Sunday June 17th.

"One charming young lady, on June 23rd, handed the ranger two pictures

of inscriptions and said, "Please autograph these and be sure to put on U.S. Park Ranger." Said I in surprise, because it was the first time I had been approached as an autographing celebrity, "What do you mean, Autograph?" and her mother said sweetly, "Why, put your name on them". I've stayed told ever since.

"Taking visitors from our new entrance which is sonfar from the Inscriptions, over the mesa before seeing the Inscriptions, is not practical nor is it satisfactory to visitors as often as it is merely acceptable. Example:- one party, expecting to make the round in a half hour, found themselves still not seeing inscriptions when over an hour had passed (and the pace had even then been too fast for some members), with the result that they saw three or four inscriptions and missed the bulk of them in their haste to be on their way. This means that the main feature was practically missed. One lady experienced an "altitude nose-bleed" making this trip.

"Wild Life:- Jack rabbits and cotton-tails are more numerous than ever. If natural enemies do not check their increase within the fenced area, they may become a problem. They are consuming a lot of new growth on the freshly seeded area where the large arroyo was filled during the CWA work. The cliff swallows have numerous little adobe houses clinging to the underside of ledges along the cliff, and many bluebirds and some mockingbirds, add a most cheerful note to the Monument in general.

"Miscellaneous:- The weather is very dry and the local people need water for domestic and stock use. Many of these people are reported to be very much displeased with the orders prohibiting hauling water from our rincon as had been their custom in years past. The dry weather, however, leaves the roads in good condition, and we think now would be a good time for the Superintendent to visit this Monument.

"I have made no mention of special visitors as the Custodian has taken care of that point. In fact, the greater part of the visitors are noteworthy, because they have the intelligence to appreciate the features of the Monument as well as the intestinal fortitude to leave the main highways and follow the by-ways to the points of interest of which they have been informed. P.S. Sunday, June 24th, brought 49 more visitors to El Morro, which makes the total number for 24 days in June, 345, with six days to go to complete the month. Alfred Peterson, Ranger."

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NATURAL BRIDGES NATIONAL MONUMENT: Zeke Johnson, Custodian, Blanding, Utah.

"Dear Frank: - All is well at Blanding and the Bridges. Not many people are coming now. June is always our off month. The Associated Civic Clubs of Southern Utah representing 14 counties, are holding a meeting at Kanab on June 23rd. The big object of this meeting is to work for the road connecting Blanding with Western Utah Via Wayne County Wonderland. They have

written me to be sure and be there as they want more information on distances and estimated costs and many other items pertaining to route and crossing the Colorado River. They seem to be very insistent that I be there so I have about made up my mind to go. I will put Junior on the job for 4 or 5 days. I feel that I ought to be there for this connecting link seems to be one of their major and pet jobs, and all of the counties are working for it. The Survey continues on the road to the Monument and sounds like work on the road that I started will soon be going again.

"It is very dry and windy, looking some like rain today(15th). The Chamber of Commerce here has offered to pay my gas expense for the trip to Kanab and insist that I go. Are you coming over to see me this season ? I hope so, for I feel that you owe me a visit. P.S. One of my greatest ambitions is to see the road connecting Mesa Verde, Natural Bridges, and Southern Utah parks put through, and believe me, I am working for it, and when it is all completed, I will have felt well paid for my efforts. Yours very truly, Zeke Johnson."

Zeke writes us 12 days later on the 27th as follows: - Dear Frank: - Well, here I am in Salt Lake City, after having attended the meetings of the Associated Civic Clubs of Southern Utah at Kanab, in company with the President of the Chamber of Commerce of Blanding, Mr. J. E. Adams, and our wives. We had a very enthusiastic gathering of the 14 counties who are all boosting for that Blanding-Hanksville road.

"We came to Salt Lake City and have met Mr. Harry Finch of Ogden, State Chairman of Federal Roads, who was down to Blanding just prior to my leaving. He assures us that the engineers now at work will continue to survey to the Natural Bridges. We have also visited the State Capitol with the unemployment officers and the State Road Commission and they assured us that the work on this new project which I started, would resume operations after July 1st with at least 50 men so of course you will know that I feel very happy over the outlook. I am returning to Blanding tomorrow.

"Just before leaving the Monument for this trip we had some very fine showers which made everything look beautiful and the water supply has never been better. We have had a great many interesting visitors, in fact there being more out here this year so far than ever before. Letters are being received everyday about the best time to visit the Monuments.

"Say, Frank, do you have an extra typewriter kicking around your ranch? If so, please ship to me as Mrs. Johnson could be a great help with my correspondence. Very truly yours, Zeke Johnson."

CASA GRANDE NATIONAL MONUMENT: H. F. Palmer, Custodian, Coolidge, Arizona.

Immediately following is the report of Mr. Palmer for June which leads off with an analysis of travel and visitors compiled by Ranger Robert Budlong:

[illegible] of [illegible] SERVICE
at
CASA GRANDE NATIONAL MONUMENT
June, 1934.

During the month of June a time-clock was installed at Casa Grande National Monument, each party of visitors was assigned a "trip number" on the register, and a separate slip of paper bearing the trip number was stamped with the hour and minute each trip through the ruins and museum commenced and ended.

From the 172 complete trips through both ruins and museum, the following table has been prepared, the column on the left indicating the time the parties started, and the column on the right indicating the percentage of the 172 trips starting between the hours indicated:

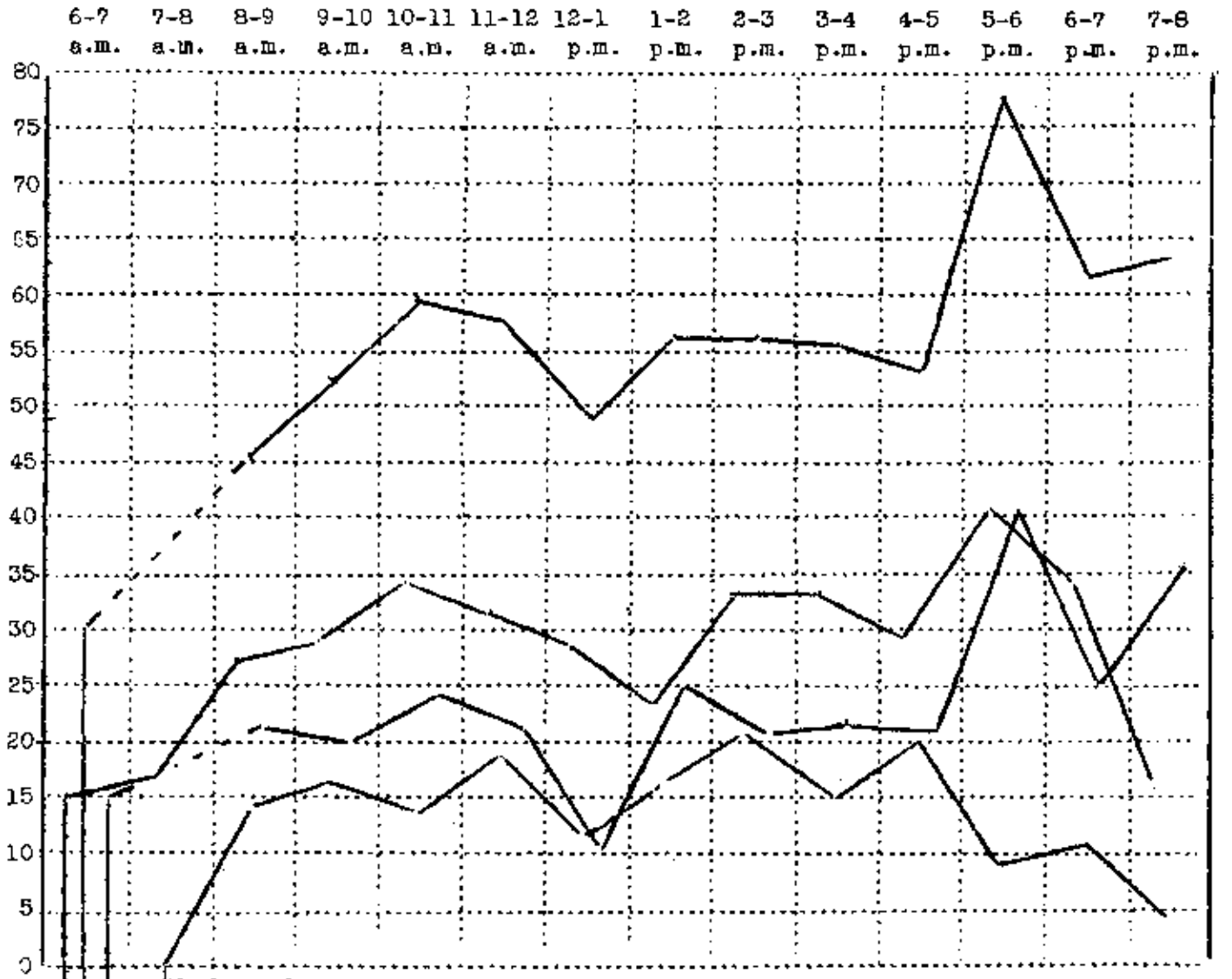
2 p.m.	to	3 p.m.		12.2%
4 p.m.	to	5 p.m.		11.6%
11 a.m.	to	12 noon		10.5%
9 a.m.	to	10 a.m.		9.9%
1 p.m.	to	2 p.m.		9.9%
3 p.m.	to	4 p.m.		8.8%
8 a.m.	to	9 a.m.		7.6%
10 a.m.	to	11 a.m.		7.6%
12 noon	to	1 p.m.		7.0%
6 p.m.	to	7 p.m.		6.4%
5 p.m.	to	6 p.m.		5.2%
7 p.m.	to	8 p.m.		2.3%
6 a.m.	to	7 a.m.		.6%
7 a.m.	to	8 a.m.		.6%

Average time devoted to complete trip through both ruins and museum..... 55 minutes.
Average time devoted to ruins trip only..... 28 minutes.
Average time devoted to museum trip only.... 23 minutes.
(The last two figures were obtained from the 172 complete trips, and, in addition, the numerous trips made by groups visiting either ruins or museum, but not both.)

Of the 172 complete trips, 15.116% were started before or after the hours of 8 a.m. to 5 p.m. The latest trip necessitated service until 9:10 p.m.

The graph on the opposite page has been prepared from these 172 trips, each horizontal line representing 5, the vertical columns representing the hourly intervals during which the trips started.

CASA GRANDE NATIONAL MONUMENT



Number of parties starting between hours indicated.
Average length of museum trips, in minutes.
Average length of complete trips (both ruins and museum) in minutes.
Average length of ruins trip, in minutes.

NUMBER OF PARTIES CHARTED: 172
June 14, 1934 to June 28,1934.

A study of the graph develops several interesting points:

The "low" areas, indicating the hours during which the least number of trips started:

8 a.m. to 9 a.m.
10 a.m. to 11 a.m.
12 noon to 1 p.m.
3 p.m. to 4 p.m.
After 5 p.m.

The "high" areas, indicating the hours during which the greatest number of trips started:

9 a.m. to 10 a.m.
11 a.m. to 12 noon
1 p.m. to 3 p.m.
4 p.m. to 5 p.m.

The coinciding of few parties and brief trips through both ruins and museum between the hours of noon and 1 p.m.

The sudden falling-off in number of parties, occurring between 5 and 6 p.m., and the great increase in the average length of both museum and ruins trips during this time.

The sharp decline in length of ruins trips, compared with increase in length of museum trips, together with the decline in the number of parties starting between 7 and 8 p.m.

Of course, this is for but half of the month of June, one of our hottest months. The temperature was high during this month, the mean maximum being 100°F. in the hour from 5 to 6 p.m., during which hour but 5.2% of the trips started, and this was the hour during which both ruins and museum trips were the longest.

While it is too early to draw any definite conclusions from this report, this data is given for the period of June 14th to 28th, inclusive. Similar statistics will be given in subsequent monthly reports.

*

This month we have an increase of 265 visitors over the same month last year. There were 1434 visitors during this month, compared with 1169 during the month of June, 1933, an increase of approximately 22%. These 1434 visitors came in 418 cars from 34 States, Washington, D.C., the Philippine Islands, England, Scotland, Wales, Canada, and Mexico. Arizona was first,

[illegible], on the total number of visitors, California [illegible], with 13%; Texas third, with 6%; and Illinois fourth, with 2%. These visitors received personally-conducted tours in every case, there being 295 Ruins trips through Compound A, and 265 Museum lectures. We had 507 other visitors who did not visit ruins or museum, but who used the picnic grounds, campground, and playground, or who merely drove into the grounds, looked at the Casa Grande without getting out of their cars, and drove away. We had an average of 5.1 persons per trip. A large "get-together" picnic was held during the month by people from Kansas, and there were several other large picnics held.

The summer months at this Monument constitute our "off-season." The visitors during the month of June were, in the majority of cases (especially during the last half of the month) of a rather low grade. We had a great many tourists driving antiquated models of automobiles, who said they observed the sign "Free Guide Service" and could not pass by anything that was free; there were many groups of young people on school vacation whose greatest interest appeared to be the entertainment of their companions by would-be witty remarks; there were many people who desired "only five minutes to see everything"; and the usual number of visitors who had been here once before and were bringing friends, but who did not desire guide service, since they knew all about the ruins from their previous trips, and would prefer to explain it to their friends. They received guide service, and the rangers spent most of the time correcting misstatements of facts made by the individuals who had been here once before and knew all about the ruins. On the other hand, there were many parties of highly intelligent persons, who were attentive, keenly interested, and a great pleasure to conduct through both ruins and museum. The percentage of such persons, however, appears to be much lower during the summer months than during the winter months.

The weather has been both hot and dry, with but .35 inch of rainfall on the 23rd of the month. Mean Maximum temperature for the month was 100.79°F., mean Minimum temperature 59.02°F., and mean temperature 79.90°F. Maximum temperature for the month was 110°F., on the 10th; and Minimum temperature 46°F., on the 7th of the month. There were 25 clear days and 5 partly cloudy days.

* *

Work on the new employee's quarters being built under the Public Works program has proceeded satisfactorily during the month, and will be completed by July 15th. All exterior work

is completed with the exception of the color coat to the stucco. Carpenters and painters are now busily engaged in finishing the interior. The contractor has done a very fine job and we are going to have a fine employee's quarters when it is completed.

A gang of six FERA men furnished by the Pinal County Welfare Board has been kept busy grading around Compound A and erecting a fence on the south and west boundaries.

The grading in Compound A was started under CWA but was not completed. It has now all been finished and presents a very much improved appearance and all water falling inside the compound walls will be drained away from the walls to the outside of the compound.

The fencing was purchased for us by the State from CWA funds and is being erected in a satisfactory manner by FERA labor. It matches our fence on the north and east sides, being 45 inches of woven wire with two strands of barb wire on top, all erected on metal posts. This fence has been needed for a long time and will stop the crossing of the Monument by people who form new roads and paths, and keep them out of our utility area.

I have the sad duty of informing you that George A. Nowlin, Jr., who has been the foreman in charge of this FERA labor, when returning from Florence, Arizona, early Sunday morning to his home in Coolidge, ran into the headwall of an irrigation ditch and was injured so badly that he died the next day without ever regaining consciousness.

Assistant Architect Langley made an official inspection trip during the month and gave us the benefit of his advice and criticisms. Engineer Attwell has been in and out several times during the month, lending his assistance on engineering problems.

J. L. L. Baehr, our janitor, has taken six weeks' leave and is spending it in Chicago and other points east. His place is being taken efficiently by another local man, but we miss "Teddy."

Our picnic area, recently improved and enlarged under Public Works, has been the scene of many picnic parties during the past month. Local organizations are using it to hold their meetings on, and every Sunday brings many people from Phoenix, Tucson, and other towns, who bring their lunches and stay most of the day. This enlargement of our picnic area is one of the most important improvements we have made here.

* * * * *

NAVAJO NATIONAL MONUMENT: John Wetherill, Custodian, Kayenta, Arizona.

From Hosteen John we have two letters; the first dated June 19th and the other June 28th. Roads and trails improvements have brought new problems in John's domain:

"Dear Natany:- You notice that I'm not using a high-powered way of spelling "Natany" but am trying to spell it in a way that anyone can pronounce.

"I have just returned from a trip to Kit Siel and Betatakin. Quite a few people have been here including a large number of the Hiking Club of Flagstaff, It was rather discouraging to see the vandalism that has gone on since I was last there. At Betatakin vandals had taken off a large number of pottery sherds and all of the metates and manos that they could carry off. At Kit Siel they have spoiled a room that had been left after it had been cleaned out to show to the tourists, with the pots, pot-rings and cedar bark rope in position. The rope and all of the pot rings had been carried off and the lintel of the door of a side room removed. The trash of the room that had been used as filling was scattered over the floor of the exhibit room. Two of the potnocked Sipapu had been dug out by people thinking they had found pots. And much more destruction has been carried on that will develop after we have a change for further investigation. You'll agree that this is enough to discourage anyone who is trying to make something for the public not like anything they will find elsewhere in the world.

"We have been in luck. We have hadmour "Natany" here to see the ruins. He came back like a locomotive after a sixteen mile ride on a mule. We also had Mr. Frederick Vroeland with us. He is a man who is more interested in the ruins than any man outside of the Park Service that I have met. He is trying to do everything that can possibly be done to preserve our Western parks and monuments, keeping their natural beauty intact.

"Mr. Ansel Hall's Rainbow Bridge and Monument Valley Educational Expedition arrived here on the 16th. They are now working out some mounds of Pueblo I and II in Doguoshe Boco, one of the branches of the Tsaigie. Mr. Lyndon Hargrave of the Museum of Northern Arizona is in charge of the archeological work with Ben Wetherill to handle the excavations and to act as chief of the party! The party has its archeologists, its geologists, its biologists and other "Ologists" too numerous to mention. The party consists now of twenty-six teachers and students. They are all greatly interested in the work. They are in acountry new to them and they are very enthusiastic. We are in hopes that they accomplish much to reveal the history of the former inhabitants of the country from the Cliff Dwellers back to the Dinosaur, who was one of the former inhabitants of this same region. Yours truly, John Wetherill."

On the 28 John again writes: "Dear Frank:- I have just returned from the ruins. There has been some 25 visitors at Betatakin since you were here. The vandalism is still going on. Two of the metates have been taken

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from the grinding bins. The bins had to be partially destroyed to get them out of the plaster. A lot of excavation has been going on. Someone dug out a mummy or skeleton partially mummified taking the head and the artifacts and leaving the remainder of the bones on the camp ground. I gathered them up and carried them back to the ruins. Dr. Marsh of the Rainbow Bridge and Monument Valley Expedition visited us and not knowing the former condition of the ruins he did not realize the damage that had been done as much as I did.- but he did see enough to telegraph Mr. Ansel Hall to see if something could be done to stop it. I showed him your copy to me of your letter to Director Cammerer and he could see that you were doing everything that could be done in regard to the vandalism.

"If you have a copy of the Southwestern Monuments Report for April I wish you would send me one if you can spare it. I need it to complete my set of copies. With best wishes for a warm and prosperous summer, I am yours truly, John Wetherill."

(For a detailed report of the vandalism and just why it as a problem has come up at this particular time, turn to the index of this report and find "THE MONTH OF THE BOSS". In his report he explains reasons why the problem comes to the fore just now, and the temporary measures that have been adopted to meet it.)

CAPULIN MOUNTAIN NATIONAL MONUMENT: Homer J. Farr, Custodian
Capulin, New Mexico.

"Dear Mr. Pinkley:- I have the following report to make for Capulin Mountain National Monument for June 1934.

"Visitors:- A little over twelve hundred have called on the Monument this month and have viewed the dry and dusty remains of the once wet and happy volcano. I doubt if it was any dryer at the termination of the last eruption than now. Knox Borden and Bob Harris, Attwell's assistants in engineering, arrived here on the 19th of June and have been locating and establishing the Monument boundary which has been no little job as the corner stones, most of them, set in the original survey in this entire township, have been removed. These gentlemen expect to complete their work here this week. I hate to lose them-good, bright genial lads who know their lines.

"Mr. and Mrs. W. G. Attwell and Jimmy were our welcome guests on the 25th. They are always welcome at this Monument and Mr. Attwell is always giving us some good advice and valuable information.

"Working Activities:-On June 19th a FERA Work Project was begun here for this Monument. The parking area is to be leveled and walled with lava set in cement, and the entire area of the Monument fenced cattle-proof, material having been secured last April and is now on the grounds. This project will last about six weeks.

"Mr. Rose, I am sorry I did not get your kind request to make out my report a little earlier, until today (the 26th). I shall try to make it out next month about the 23rd or 24th. Very Respectfully, Homer J. Farr."

Stewart, the fellow who got away with 1000 feet of Homer's mountain, is at Wind Cave now. It is pretty fine to see Borden and Harris getting along so good on that job, except if Homer doesn't watch them they will get away with a couple of sections of the area !

This matter of fencing our monument areas is certainly worthwhile. Wild life conditions may be seriously disturbed all around, but fencing serves to keep conditions within the monuments natural.

Homer's report shows that a parking area on Capulin will serve between 1000 and 1500 visitors each month who drive out to see the Volcano.

TUMACACORI NATIONAL MONUMENT: George L. Boundey, Custodian, Tubac, Arizona.

"Dear Mr. Pinkley: - Visitors to Tumacacori for the month number 764. The month as a whole has been very hot with one slight shower on the 21st. Many cattle are dying on account of the drought, one man losing as many as 700.

"We cleaned out our well and put an extension on the lower pipe. We are using so much water for the cement work that the water level has lowered considerably.

"We are working about 100 men here in shifts of 20 each. Each shift works three days the first half of the month and three days the last half, giving them six days labor, or $21.00 a month, which is more than the majority of them have earned in years.

"We hope to make enough adobe blocks to complete the wall entirely around the Monument. As we have to furnish all supplies other than labor, the making of the adobe requires nothing but a little straw which is the item that has to be purchased.

"On account of many of the springs and water holes having dried up the cattlemen are having much trouble among themselves over the water-rights and the neighborhood is almost like an armed camp. Sincerely, George."

Showing that we don't always stick to alphabetical order, we will put (A)ztec in the "Z" position this time.

AZTEC RUINS NATIONAL MONUMENT:- Johnwill Faris, Custodian, Aztec, New Mexico.

"Dear Boss: - The depression is over ! Visitors for the month total 1435, which is the biggest June with the exception of 1930, since my term as Custodian at the Aztec Ruins. Of this number some 369 were shown through yesterday as a result of a Masonic Picnic of the San Juan Basin being held in Aztec. We were quite elated over the efficient manner with which all of these visitors were handled.

"Plans had been laid for nearly 600 people but a threatening day prob-

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ably caused many of them to postpone any trip. Silverton, Ouray, Pagosa Springs, and other towns all reporting rains which, by the way, were of much more importance and benefit probably than a trip through our ruin. Everyone in the office was drafted into service and plans were made to place a guide in each room and allow the visitors to pass through rather rapidly and in large groups. The limited number arriving, however, altered these preparations to where each guide was given a group and the group members were given more or less the same individual attention that any party might receive. Many favorable comments, and not one complaint, were received.

"It is surprising what an experienced crew can be gathered from our force: Gay Rogers, Tommy Thompson, Oscar Tatman, Don Gay, Frank Kohl having all taken parties off and on and Madelene Scranton, Miss Adams, Mrs. Turner and another local girl, we can handle about any number of visitors that might come in on us.

"June has also been a month very much appreciated from the standpoint of visitors in whom we are particularly interested. On the 2nd Dr. and Mrs. Julian Steward of the Department of Anthropology, University of California, stopped in, spending Saturday night and a part of Sunday with us. It was most pleasant to spend several hours with the Doctor going over details of museum plans and future developments. We hope they enjoyed their visit here and will see fit to make us another when opportunity presents itself.

"On the 13th of June, Bob Rose was up and we enjoyed a visit with him. On the 19th Dr. Douglass of the University of Arizona, who contributed to our museum interest with his ring growth charts whereby we can determine ages of early ruins, was here. Your coming in later that same day was quite an event and if you only knew how much we enjoy having you, you would repeat the occasion more often. Both "Chuck" Richey and J. B. Hamilton came down on Wednesday to confer with you and, incidentially all our problems of Aztec Ruins were discussed.

"On the 24th, of course, we had some of the Masonic Picnic people of rather high standing in both Colorado and New Mexico.

"All in all, our visitors contacts have been most enjoyed, and with Mrs. Rogers having the situation well in hand, each visitor, I believe, has been given our regular brand of service.

"All Public Works Projects are progressing in a satisfactory manner. We are particularly gratefull and relieved in finishing our drain ditch. We are planning to make frequent tests to determine just the amount of water we can get from this drain and also watch our kiva floor levels closely to determine the effect of this drain will have on them.

"Minor repairs have been made here and there on our walls, kivas and

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etc., clearing away all spaces surrounding the kiva for the installation of the circulatory system suggested by Mr, Kittredge on his visit here last month. Our work in the prevention of floods entering the museum is practically completed and, while the plan originally proposed was not followed, both Mr. Hamilton and Mr. Morris feel much happier over the present arrangement.

"Our major work has centered on the Great Kiva and, as you know, these walls are now assuming definite shapes as well as are the rooms on the court level. Timbers have been cut and are being hauled at the present time for the mammoth roof. The Custodian made an inspection trip to clear these timbers the 21st and we were particularly fortunate in being able to secure the cooperation given us by the Forest Service since this type of timber is quite uncommon and is particularly essential in this great kiva.

"We have been fortunate in weather conditions and little time was lost during the month because of bad weather. The general conditions in the locality are extremely dry and unless some rain is forthcoming, damage will undoubtedly result to the majority of the acreages in the valley.. Our well and pump have given us some trouble but as yet only minor features that were easily and quickly remedied. We are finding it necessary, however, to pull our rods and put in new cups since the additional burden of Civil and Public Works Administrations works have worked this machine overtime in many instances.

"Plans are being formulated for the immediate preparation of bids on our New Museum and we are awaiting the drawing of plans from either the San Francisco or the Washington Offices before sending out bids. We appreciate the information and assistance on this supplied to us by Field Headquarters and you and will make every attempt to draw up these bids in accordance with the instructions given us.

"Miss Adams, our pottery technician who has been with us since the latter part of December, was dropped from our payroll May 31st but because of the excellent work she was doing Dr. A. V. Kidder of the Carnegie Institution asked permission for her to continue during the month of June at the expense of that Institution. This, of course, we gladly did, and appreciate not only the services of Miss Adams but also the interest Dr. Kidder has shown in our monument.

"We trust that administrative matters have been handled in accordance with the policies of the National Park Service and we are looking forward to an eventful July. With best regards to everybody at Casa Grande from the force at Aztec, I am very truly yours, Johnwill Faris, Custodian."

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In closing these reports of the individual monuments we do not have special reports on Chiricahua, Arches, Saguaro and others, but following The Boss' Month, matters pertaining to many monuments not thus far covered, will be considered.

THE MONTH OF THE BOSS.

As a sort of closing word for the month of June and the fiscal year, I might add to this report a few words on what I have been doing during the month and some observations on what I have seen.

On the 6th and 7th, Chief Clerk Hugh Miller and myself made a trip down to the Chiricahua National Monument to see if the new C.C.C. camp was coming in and getting settled all right. You will remember that this camp is a National Monument camp and is being operated under our Service but its work will be done on a cooperative basis with the Forest Service. Forest Supervisor, Fred Winn, is the man I deal directly with on the Forest Service side and I am free to say that if the Forest Service had ten thousand of him I would be trying to join up with them. The only thing I have seen about him yet that looked suspicious was that night of the sixth when the Army clerk made him sign for a steel cot and bedding before he would let him go to bed. Hugh and I thought if they watched a Forest Service man so closely maybe we better not try them so we went down to Ed Riggs' Faraway Ranch and spent the night. You will be dropping in there too some time and you will find it is one of those places you will always be wanting to go back to, and Ed and the Missus are the salt of the earth.

Lieut. Woody, on behalf of the Army, was shaking the camp down in fine shape, and, although it was only half moved, everything was orderly and proceeding with the precision one usually expects of the army. The boys are a fine, upstanding lot and seemed contented and happy. I feel that the camp at Chiricahua is going to be a success. It was under the maximum at that time some sixty men but they promise us to bring it up to a full quota by about July 10.

Hugh and Mr. Applegate straightened out the forms and procedure for handling the business of the camp through our headquarters here at Coolidge and we all talked over the proposed roads, trails and construction projects and finally parted thinking that if the Army, the Forest Service and the Park Service couldn't run a C.C.C camp successfully no other outfit in the United States need try.

On the 14th I started a swing trip through Northern Arizona and across to Santa Fe to see how some of the boys had wintered and what the C.W.A. projects had brought forth.

I drove to the Montezuma Castle National Monument the first day, finding some long detours, which constitute a certain sign of progress, between Phoenix and Prescott and some new construction between Prescott and Jerome.

The work at the Castle was in fine shape and we spent the end of the afternoon and the evening discussing further expenditures and some clean-up work which was needed.

Next day I went up through Oak Creek Canyon, a place you must go some-

time, a very beautiful drive, through Flagstaff, Cameron, Tuba City, Red Lake, and on out to Hosteen John Wetherill's, where I spent the 16th and 17th.

The reason for this part of the trip at this time was that the problems of the Navajo National Monument had suddenly come to the fore because of the construction of a new road and trail which makes it much easier for the visitor to get to Be-ta-ta-kin Ruin at no expense for horse-hire, guides, etc. The Indian Service, through some of its C.C.C money, ran a road from the Shonto-Marsh Pass road about seven miles north to the south rim of the Tsagie Canyon. From the end of this road a trail was put down into the Tsagie and this trail runs up Be-ta-ta-kin Canyon to the Be-ta-ta-kin Ruin as well as down into the main Tsagie. It is only a mile or so from the parking ground at the rim to the Be-ta-ta-kin Ruin, so the walk is not excessive, although the climb back out is pretty stiff. Before this the visitor could only get in by saddle horse and needed a guide. This made it expensive enough to cut down the number of visitors, and in the 17 years or so since Mr. Judd cleaned up Be-ta-ta-kin Ruin we had very little vandalism. With this new method of getting to the ruins we are having a sharp increase in visitors and have had several cases of vandalism already this year. The same thing, in a lesser degree, is true of Kit Siel Ruin, which is about eight miles by trail from the new parking ground. It will not have as many visitors as Be-ta-ta-kin but vandalism has already begun.

Immediate steps have been taken to put a couple of Navajo Indians over the ruins as guards for this summer, but this is only a stop-gap method the proper solution being to go in with the regular type of personnel and give service to the visitors who are beginning to come and who will expect the regular information and educational service they get at other places.

By appointment I met Mr. Frederick K. Vreeland at Mr. Wetherill's place and for two days he, Mr. Wetherill and myself went over the various complex problems connected with the taking over and handling this type of National Monument. We made a trip to the two ruins mentioned above and finally both wired you starting the action which resulted in the two Indians being put on the job as detailed above. There are over-grazing and soil-erosion problems in the Tsagie district which indirectly touch our Monument problems. If we talk of removing the sheep and goats as a factor in the over-grazing and soil-erosion, we immediately get over into an Indian problem for the Indians thereabouts live upon sheep and goats. Mr. Vreeland proposes an interesting solution of getting the Indians to give up sheep and goats and in return charge a toll on visitors entering the district to see the ruins and selling Indian handiwork directly from an Indian hogan at the head of the trail to such visitors. This, as you probably know, is being done by the Santa Clara and Acoma Indians, but in those cases the income thus derived constitutes only a small proportion of the total income of those Indians. In our case it is a question if 300 visitors would yeild enough income to offset the loss of the sheep and goats.

We threshed such questions as these over for more than two days and I am still thankful to Mr. Vreeland for giving so freely of his time and putting himself to quite an expense to give me his outside viewpoint. We who are on the job are sometimes too close to our work and need the ideas of one who has studied the matter from further back where he gets the whole picture. In the next thousand miles of road I turned over in my mind a hundred things we discussed in these days at Kayenta.

I left the Wetherill home on the afternoon of the 18th and went down to Canyon de Chelly National Monument where I spent the night at Cozy McSparron's. Here we have another set of problems somewhat more emphasized than at the Navajo National Monument. Our Service is cooperating with the Indian Service in doing some soil-erosion protection work for the benefit of the Indians, 365 of whom are living on our Monument. We are also cooperating in the construction of a trans-canyon trail to be used by the Indians as well as the white visitors who may arrive when there is water in the canyons and they cannot come up the canyon in the usual way to see the ruins.

Taken as a whole I think the Canyon de Chelly National Monument, at its present stage of development, presents some of the knottiest problems of any of the twenty-five monuments in this southwestern district. The Landscapers are about at their wits end to work out a location for headquarters. We have studied two or three locations and objections crop up each time. I am quite frankly at my wits end from the point of administration. Visitors have been coming for years, are now coming in fair numbers and are likely to double or triple on us in any season. Running five or ten thousand white visitors up those canyons each season and trying to hold the Indians from being spoiled as they have been spoiled in some of the pueblos by white visitors, is a real big problem in itself but it is only one of a dozen which cluster around us at that Monument. There are some of the finest educational possibilities here of any place in the Southwest, yet the Educational Division is going to strike bran new problems when it begins to study the situation.

On the 19th I left Cozy's about nine o'clock and went over the mountain to Fort Defiance where I found Mr. John G. Hunter, Superintendent, away on business. I left my compliments and pushed on to the Shiprock-Gallup road where I turned north through Shiprock and went through Farmington to the Aztec Ruins National Monument. I remained here over the 20th. Mr. Faris has a flock of problems all his own, but several of them are now in the process of solution. That big kiva, about which we have all been mourning these many years, is in the process of reconstruction under the direct charge of Earl Morris who excavated it and reported on it for the American Museum. The work was coming along splendidly and the kiva is going to be a knockout from the visitor's viewpoint. Several bad walls had been saved and more of such work was planned. They were about ready to start the cement roof over the restored kiva and it will be a load off our minds to have that job out of the way. They had some of those triangular patches around the kivas

opened up and were getting ready to pour the new type of concrete cover which Mr. Kittredge has suggested. I believe that will stop the penetration of water and relieve us from the disintegration troubles we have had with kiva walls. They were also working out the final details of pouring the new reinforced floors over the old first story ceilings and that will mean another load off our minds when we get complete protection over those ceilings.

The parking ground at Aztec is still unfinished, due to the tapering of the C.W.A. project under which it was built. It still lacks the binding material on the surface of the gravel. We all overlooked the fact, when passing the plans, that, with 52 feet of distance between the ornamental entrance pylons there would be plenty of space for a cow to get in and eat the green stuff our of the island in the parking area. The cows, however, took one look at the plan and discovered that mistake. As a result Johnvill has a barbed wire entanglement which he misnames a gate and which has to be put up every night and taken down each morning. This leads to surprising remarks, as I learned from experience, and we have one more problem to solve before Aztec can be considered finished. The removal of that old barn and the erection of the new fence have done much to improve the appearance of the place and another big step in this direction was the tearing out of the old cross fences which interfered with the view across the ruins.

Leaving Aztec on the 21st, I drove to Bandelier National Monument reaching there that evening. You may not know it, Chief, but there are sometimes little differences of opinion between the Landscapers and the Engineers as to what constitutes a road and now and then there have been something approaching arguments on that Bandelier road. I had heard rumors of it here and there last winter and spring as I signed C.W.A. papers at my desk at headquarters, so I was prepared for most anything in the way of a road or a lack of it when I went into Bandelier that afternoon. You can just put your mind at rest; those boys built a good road in spite of all that argument. When I came to station 0, where that new road starts, I set the V8 in second gear and crawled along down that grade just as slowly as she would roll looking for trouble every foot of the way, - and it just wasn't there. It is as pretty a piece of road as I saw in two thousand miles of driving on the trip. The location is fine, the grade is good, the slopes are excellent, the clean-up work has been beautifully done and the whole job struck me as mighty fine.

The 22nd was spent in going over the floor of the valley in Frijoles Canyon and looking over the things that have been done or are to be done by the C.C.C. camp which we have there. The trail down canyon has reached as far as the upper falls and is as pretty a trail as you would care to see. This is a scenic and geologically educational trail and will go on down into the gorge of the Rio Grande. The alignment and drainage are good and it promises to give pleasure to many thousands of hikers in the next few years. A trail up canyon to the Ceremonial Cave is beginning to take shape and I was well pleased with its location

and construction. I hope the time will soon come when the Educational Division can put a man into the field in such cases and help us in the location of this type of trail, but I feel sure they will agree with the location when they come around to check up on it.

We went up to the Ceremonial Cave and held a session on the need and possibilities of a trail as against the present system of ladders up to the Cave. The Landscaper and Engineer decided that, from a purely proffessional standpoint the trail was feasible and would not mar the view from below. The Custodian, for Mr. Earl Jackson, the newly appointed Custodian was on the ground and getting acquainted with his Monument, was against it and of course I tried to root for both sides. We finally decided that we would consult with Mr. Nusbaum, the archaeologist for the Interior Department. Mr. Jackson did this and reported later that Jess voted against the trail idea, so, for the present at least, we have put that on the shelf.

Later on we had a session with Mr. and Mrs. Frey and agreed upon a clean-up of their out-buildings, which now occupy the front yard as it were, and the construction of one building upon an approved location up the canyon between the hotel and the ranger cabin. This plan, if it is successfully carried out, will make what I consider a very important improvement in the general layout on the floor of the Canyon.

The ranger's quarters and two outside guest rooms have been overhauled and are now nearing completion and the quarters so far as they go at this Monument are now up to a high standard.

The two big problems now confronting us at Bandelier are the educational and protection angles. Of course the answer depends upon personnel and we can't get another man on that job too soon. Expecting one man to handle five thousand visitors this season over a mile or more of canyon floor is of course expecting the impossible. We worked out an idea of using some of the C.C.C. boys to assist the Custodian and Mr. Jackson was starting to try the idea out the day I left.

I left Bandelier on Sunday, the 24th and drove to Gallup that night. The next day I spent the morning dealing with some Chaco Canyon matters around Gallup and drove down to the Petrified Forest that afternoon. The next day I came down over the mountains to the low country, completing a 2,200 mile trip.

All roads were in good shape and traffic in general was reported as heavier than last year. The weather was dry and the days were warm.

I wanted to get out to El Morro from Gallup to see the new work there but simply could not spare the time as it was nearing the end of the month and the fiscal year which caused a lot of extra work on us at headquarters.

Cordially,
Frank Pinkley,
Superintendent.

REPORT OF ASST. ENGINEER J. B. HAMILTON:

Weather:- The weather has been fairly cool for June and quite windy. A nice rain at Mesa Verde on the 24th missed Canyon de Chelly.

Aztec: - At Aztec National Monument the drainage trench installed to dry the roofed kiva has been completed. The latest test shows it to be drawing 50 gal. per day from under the Ruins Court. This contrasts with the 200 gallons per day which drained shortly after it was first installed. It is not certain yet whether the lessening of flow is due to the drying up of the ground under the Court or whether the flow was due to rain water soaking through the trench.

"The walls of the restored Great Kiva are well on their way to completion. Most of the effort has been concentrated on this restoration, although a few men have done fine work on other badly needed wall restoration.

"Drainage lines have been installed to drain the triangular areas about the kivas within the ruins. Reinforcing steel has at last arrived, so soon roofing of the roofed kiva and the original ceilings can start.

Canyon de Chelly: - Mr. Gray with a transitman and two or three assistants has been busy all month making surveys for a trail across Canyon de Chelly, except for his staking out lines for a few days for erosion control in the vicinity of the White House. I have spent considerable time working with him. He has 3/4 mile of trail located across from the White House and better than a mile of preliminary lines run on alternate locations and on the trail to the area between the canyons. Leveling and cross-sectioning have been done over these lines.

"Mr. Gray has met the Indians at a Council in company with Mr. Allen who is the Canyon de Chelly contact man for the Indian Service. I understand Mr. Gray made a very good impression on the local Indians.

"Mr. Murphy has mapped about 1000 acres of Canyon floor to locate details impossible to show on the 4" to the mile scale.

"After much discussion between various branches of the Park Service, the Indian Service and the Soil Erosion Service, approval of the erosion control project has been obtained and $15,000 set up for carrying it out. Work will start soon. The trail project as a whole has been approved and $5000 set up for construction. This is perhaps 1/4 or less of what will be required to build the mile and a half of trail across the Canyon from rim to rim. J. B. Hamilton, Asst. Engineer."

We next go to the report of Engineer Walt Attwell. Here we get notes on Chiricahua for which there is no regular report this month.

REPORT OF ASSOC. ENGINEER W. G. ATTWELL:*- "Dear Mr. Pinkley: - My activities for the month covered several of the Southwestern Monuments.
Capulin Mountain: - The engineering crew completed the boundayr survey started in the winter and postponed on acc unt of snow. Custodian Homer J. Farr was employed as foreman with a crew of F E R A men to construct the fence and complete the Rim and Crater trails. All materials are now on the Monument for this work.

"Casa Grande:- The Custodian's residence nears completion. The FERA crew on the fencing is well organized and under way. The Boundary Survey has been completed.

"Chiricahua:- C.C.C. Camp N.M. #2A has been started with Mr. H. O. Hammond as construction superintendent. This camp is 50-50 Forest Service and Park Service. The work in the national monument so far has consisted of clearing fire hazards along trails where snow has broken the pines. We have also placed three wells in Bonito and Rhyolite canyons for water. Only one developed water, that being at 30 feet down. The capacity of this well has not yet been determined. During July we expect to construct a trail from the mouth of Rhyolite Canyon to Inspiration Point.

"The topographic map started several months ago by the Forest Service under Engineer Clark has been discontinued. It is hoped that this can be completed with the E.C.W. Crew.

"The camp at this date is undermanned 70 men. With the termination of L.E.M.'s this camp will be only 50% strength. We have a promise of full strength by July 10th.

"Bandelier:- The CCC Camp N.M. #1 is also undermanned but not badly. The entrance road is completed; the trail to the Rio Grande is completed for one and a half miles; the ranger's residence which is under repair should be completed in a week. The activities are being centered on the trail work.

"Gran Quivira:- A recent transfer of road and trail funds for Bandelier makes it possible to complete the entrance road and parking area at Gran Quivira. I have placed Engineer Howard F. Leslie in charge of this construction. All arrangements have been completed for crews, equipment and materials. This work should complete the project started under C.W.A.

"Tonto:- Engineer Ran has completes all field work for a topographic map of headquarters and ruins area. The office work on this map is now nearly completed.

"Montezuma Castle:- Harry Brown has been placed as Foreman on the construction of Sewer System, Garage and Storage Building, Steps to Castle, Ruins Trails and revetment. Crews were started several days ago and the work is under way.

"Tumacacori:- FERA crews under Foreman Puckett are completing the adobe walls and entrance gates.

"General:- Every project in the Southwest (except the Aztec Museum) is now under way. Sincerely, Walter C. Attwell."

Here is a fine place to insert a little correction of travel statistics for Chiricahua National Monument. Fred Winn, Supervisor, of the U. S. Forest Service made the following tabulation and analysis. Note that while the total for the Chiricahua Division of the National Forest is 28,250, not all of them could be assigned to the national monument proper. A temporary ranger is going on duty early in July at Chiricahua, and we will begin to get statistics on the monument proper.

"Summer Home Residents	360
Hotel and Resort guests	150
Campers	5140
Picnicers	5300
Hunting	3050
Fishing	725
Winter Sports	310
Other Activities	6215
To enjoy scenery	5900
Merely passing through	1100
TOTAL	28,250

We are indebted to Mr. Fred Winn for this breakdown of travel for that general region. Doubtless most, if not all, visit the Wonderland of Rocks one or more times during the season. It will be interesting to see how near this figure the actual Monument traffic approaches.

CHIRICAHUA: *- (Excerpts from Jr. LS Architect Sias' report)

"Pursuant to a request by Mr. Attwell, we have been collaborating with Asst. Engineer Ray in connection with the project at Massai Point. This collaboration has consisted in material help on the part of our engineer, Mr. Tovrea, and on my part in tentative locations for barbeque arrangements, latrines, amphitheater details, etc. Mr. Ray and I appear in complete accord as to the general disposition of all such features, and so far as our present information permits, the manner of their respective developments. I have indicated to Mr. Ray certain limited areas very close to Massai Point which I did not think should be disturbed, as I did not feel that the small number of additional cars that could be accommodated would compensate for even temporary scenic loss. Mr. Ray appears to be in sympathy with this restriction.

"You will, of course, have Mr. Ray's official report on this project at an early date. In view of his thorough work at Massai Point, the Labor

Day celebration does not appear as impractical as it did with the information hitherto available; nor do I feel that the resulting loss from the land scape point of view will be so grave as at first feared, and in any case, this loss should not be of permanent nature if the work is properly handled, as much of the native shrub growth as possible being left to grow again, i. e. cut rather than grubbed. .....Inasmuch as the personnel of this Camp will be depended upon to do the bulk of the work at Masai Point, if not all of it, naturally we await with interest official reactions to the reports which are being submitted in connection with it.....

"As yet we have no reply to our telephone call of last Tuesday in reference to the location of a satisfactory powder house, although we understand some information in regard to this necessary detail is under way. The proposed location at the mouth of Rhyolite Canyon is very satisfactory from every point of view - except in the remote possibility of an explosion. Not only would such explosion be extremely dangerous to life and property in my estimation, but serious damage to the scenery at the mouth of the Canyon would inevitably result. In view of the admittedly slight possibility, it would seem to be better to have this storage space space farher removed from the center of things, which can be done, although more work will be involved. We await with interest your reactions to this problem, as the powder house will be needed at an early date. ... Richard D. Sims, JR. LS Architect."(Excerpts; copies of this report went to Resident LS Architect Harry Langley, Mr. Pinkley and Construction Supt H. O. Harmond).

BANDELIER:*- (Excerpts from Report of Jared B. Morse to Chief Architect)

"....Without doubt, trail work has been the most important project of the last month, The Nature Trail covering the distance from the Hotel to the Rio Grande is completed to point directly above the Lower Falls, some two miles of delightful walking. Progress this month has been much slower due to the care exercised in dumping the overcast in such places as would not mar the slopes or disfigure the Falls and streambed below the trail. Then too, a portion of this trail was relocated to ease the grade and to take advantage of a more pleasant view of the Upper Falls, The sightseer is now brought to a point below the Falls where a sudden short switch-back presents the shimmering cascade in all its glory.

"A second very interesting trail, known as The Ruins Trail, is being built from the back of the Custodian's Office westward along the base of the cliff ruins to the Ceremonial Cave. One half mile is completed to the cave where Bandelier stayed while visiting the Canyon in early days. Beneath the present cableway, the trail crosses a small arroyo which leads back toward the cliff into a shaded area which is to be developed as a little theater and campfire circle for small groups. Mr. Jackson, the Monument Custodian, is extremely interested in the Ruins Trails. He felt opposed to a new trail to the Ceremonial Cave, and after

conferring with Mr. Nusbaum he suggested only reconditioning the present approach. Just beyond this arroyo mentioned in the above paragraph, the trail rises perceptably to the cliff ruins giving the opportunity to construct some naturalistic stone steps out of the slabs of tufa.

"The camp ground area, directly opposite the CCC Camp and across the Rito, has been occupying a good deal of our attention. A road has been put in and graded, and all dead trees and brush removed and burned. All spurs for car parking are staked and are being outlined with weathered rocks from the adjoining cliff side. Already several large groups have held picnics in the area, so we are setting aside the lower end of the site for that purpose, building a fireplace and providing garbage receptacles.....

"A recent improvement which is being eagerly awaited by all of the boys in the camp is the Swimming Pool. This is located about one-half mile below camp on the Nature Trail. The Pool is in a lovely naturalistic setting, made up of hard volcanic rock. The water is being impounded by constructing a dam with a concrete core found on the lower side with surface of stone. Work is progressing rapidly so that the pool will be ready in a couple of weeks.....

"The Master Plan and the Administrative Area Plan will be forwarded for approval sd soon as we hear from the Parking Area Plan.

"We were exceedingly pleased to have Mr. Pinkley with us last weekend. During his visit here, Mr, Pinkley, Mr. Attwell and I arranged with Mr. Fry to clean up the present Hotel utility area. In return for their existing buildings we will build one building containing a stable, hayloft, saddle and feed room, small chicken coop, caretakers room and corral. A plan and an elevation will be forwarded for approval as soon as possible. Mr. Pinkley advised leaving the present utility area at the top of the hill....." Respectfully submitted, Jared B. Morse ".

Here we conclude another rather lengthy report but each one of the individual reports gives a cross section of travel, work projects and general community conditions. Business pertaining to the organization in general is considered at the start of this report.

Circulars, memoranda, special letters and other materials put out as instructions and for tourist distribution are attached following the Supplement.

Just as this report closes we get confirmation of the appointments of temporary rangers at Chiricahua and Walnut Canyon, and of Dale S. King as Junior Park Naturalist to begin work in a few days. These more properly belong to next month's business and will be considered more fully then.

Cordially,

(Signed)
Actg. Asst. Supt.

FRANK PINKLEY, SUPERINTENDENT.

UNITED STATES
DEPARTMENT OF THE INTERIOR

National Park Service

PETRIFIED FOREST NATIONAL MONUMENT
Holbrook, Arizona.

July 1, 1934.

The Director,
National Park Service,
Washington, D. C.

Dear Mr. Director:

The following narrative report of the activities in the Petrified Forest National Monument for the month of June, 1934, is respectfully submitted.

GENERAL:

Our travel still shows a decided increase over that of last year at the same date. However, for the month of June, 1934, it is about 7,000 less than for June, 1933.

WEATHER:

The weather has been dry most of the month with steady winds. A most welcome rain fell on the 23rd and helped to compact the 7" course of crushed gravel which has been placed on the monument highway. Weather statistics follow:

Mean maximum, 86.6.
Mean minimum, 51.7.
Maximum, 95 degrees on the 11th.
Minimum, 38 degrees on the 7th.
Precipitation, .09 of an inch.
26 clear and 4 partly cloudy days were recorded in June.

ADMINISTRATIVE:

Our office and other administrative work has been kept well up to date and the monument has been inspected at regular intervals. On the 18th and 19th I attended a meeting of the U. S. Highway 66 Association at my own expense.

PUBLIC WORKS:

Under Public Works, activities were continued on the test well at Headquarters. During the month the well rig and crew were employed a total of 17 days. As stated previously, a practical shut-off of the highly mineralized water had been made at the depth of 744 feet. Drilling was continued to the depth of 1,023 feet. A most peculiar condition was met with between 950 and 1,000 feet. On several tours between these depths, for ten feet or more each time, no samples could be bailed out of the bottom. At the same time the material was as hard, if not harder than previously encountered above, as the Coconino sandstone. In some cases four drills had to be dressed each shift. One of the drillers thought we were drilling in a fault and that the cuttings were carried away in a transverse direction, while the other was inclined to believe that the layers were salt. Both are experienced men. I have never heard of salt being found within the Coconino sandstone. The samples taken from the bottom of the hole at 1,023 feet are as typically Coconino as the ones taken from the depth of 700 feet or more. After these conditions developed, a pumping test was made with the cylinder placed at a depth of 400 feet. The pump was operated continuously for six hours discharging 1,560 gallons per hour without apparently lowering the head of water. The water contained considerable salt, with probably other minerals. The cylinder was then set at a depth of 180 feet, fifty feet below the normal stand of the water and pumping developed the same amount with practically the same salt content and without lowering the head. The pumping apparatus was then removed and bailings were secured from the bottom of the hole, these samples being very heavy brine.

After a study of conditions we came to the conclusion that the water pumped from the hole was entering at a point above these voids or salt beds and that it was possible the water above 960 feet might be fresh. Acting on this opinion we have sealed the hole with rock and cement at about the 960 foot level to shut off the water below. This cement will have set by July 1 and then another pumping test will be made. If this operation fails to produce potable water, drilling will not be continued as the probability of developing fresh water is remote. Should the water still prove to be salty after the next pumping test we propose to utilize it for all sanitary purposes, in fact, probably for all purposes except drinking and cooking. In this case we would use the present water system for this, putting in an auxillary water system and placing a spigot for fresh water

in each building. This would reduce the hauling of fresh water to a minimum.

It seems almost tragic that after surmounting all the difficulties connected with shutting off the highly mineralized water above, and producing the well to the stratum which should contain an unlimited supply of fresh water we now find that to be salt also. However, should the development of this water prove necessary I believe the funds are well spent as we can go ahead with the installation of sanitary conveniences for the personnel in the monument and the visiting public. Perhaps during the oil drilling excitement within a radius of 20 miles or more, 15 years ago, the Coconino was punctured to such an extent that no potable water exists therein.

LABOR SITUATION:

The labor situation remains about the same in this locality.

BUREAU OF PUBLIC ROADS, PUBLIC WORKS:

The surfacing of the monument highway, Everly and Allison, Contractors, with 7" of crushed gravel is practically complete at this time. They expect to finish the work on July 2nd.

E. C. W.:

A "fly camp" has been at the site of this camp at the Rio Puerco getting ready for the main camp all the month. The main camp is now expected July 3rd.

RANGER AND MUSEUM SERVICE:

Ranger Naturalist M. V. Walker is on duty daily in the museum which is kept open from the first arrivals about six o'clock in the morning to dark. In order to accomplish this it is necessary to stagger shifts and all the hours of duty are very long. During the month 9,140 people were given personal service in the museum. The number of automobiles stopping at Headquarters over night was 73, and those stopping for noon rest and lunch numbered 55.

NATURE NOTES by M. V. WALKER:

Nature Notes for June include an addition to the list of birds given last month, and also a new list of Mammals.

The Mammal identifications are based on Anthony's "Field Book of North American Mammals".

A very interesting bird to be reported is the Snowy Heron or Snowy Egret, Egretta thula thula. It was seen near a pond about 6 or 7 miles west of Holbrook, Arizona, on June 4, 1934. The rare occurrence of these birds make this report important.

About a month ago a pair of Say's Phoebes, Sayornis sayi, were observed nesting in the garage at Headquarters. Soon after the first observation the young were hatched, but just after they left the nest, a severe hailstorm occurred and they were killed. Apparently the same pair of Phoebes now have a nest in the Ramada on the west side of the Superintendent's residence. Another Phoebe nest with young was located along a cliff in the Blue Forest.

A pair of Rock Wrens reared a family of six in a hole in a fossil log just a few yards on west side of the museum. Many interesting observations were made on the feeding of their young. Several times they were seen collecting green larvae from Russian thistles. Many young horned larks may now be seen around the headquarters area. An Antelope ground squirrel with 4 young made a foraging trip to a garbage can near one of the buildings and afforded an interesting study. Another ground squirrel was seen near Agate Bridge, and had 3 young.

BIRDS (continued)

1. Killdeer.....Oxyechus vociferus vociferus
2. Night Heron.....Nycticorax nycticorax naevius
3. Snowy Heron.....Egretta thula thula
4. Red Wing Blackbird.....Agelaius phoeniceus nevadensis
5. Say Phoebe.....Sayornis sayus
6. Red Shafted Flicker.....Colaptes cafer collaris
7. Night Hawk.....Chordeiles minor
8. Kingbird.....Tyrannus verticalis
9. Oriole.....Icterus bullocki bullocki
10. Blue bird.....Sialia currucoides

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MAMMALS

1. Antelope.....Antilocapra americano americano
2. Prairie dog.....Cynomys gunnisoni zunionais
3. Porcupine.....Erethizon epixanthum couesi
4. Antelope ground squirrel..Ammospermophilus harisii harisii
5. Coyote.....Canis lestes