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(May, 1929)

UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
Yellowstone NATIONAL PARK

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FILE NO. 143

MONTHLY REPORT
MARCH, 1934

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HORACE M. ALBRIGHT,
Director

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DEPARTMENT OF THE INTERIOR

NATIONAL PARK SERVICE

YELLOWSTONE NATIONAL PARK

YELLOWSTONE PARK, WYO.

OFFICE OF THE SUPERINTENDENT

April 6, 1934

The Director
National Park Service
Washington, DC

Dear Mr. Director:

Following is the monthly report of activities for Yellowstone National Park for the month of March, 1934.

000 - General

The extremely mild weather which has characterized the entire winter in the park was in evidence throughout the month of March and there were very few bad days. At no time during the month was the weather severe and the only snow storms were of short duration and the snow did not remain on the ground for any appreciable length of time. This fine condition was a boon to the CCC employees as no time was lost during the month by these men because of bad weather. There have been few years in the history of the park when any of the roads in the interior thereof were passable in March. The Tower Falls road and the road from Mammoth to Old Faithful and East Yellowstone were both transversible by the end of the month. The Cinco snowplow was used in opening up parts of the roads from Mammoth to Tower Falls and from Mammoth to Madison Junction. As early as March 20, a truck was driven from Old Faithful to East Yellowstone. It was not necessary to open this section of road with the snowplow.

020 - General Weather Conditions.

A summary of the general weather conditions during the month will be found at the back of this report.

021 - In the Park

Mild spring-like weather prevailed throughout the entire month. Many warm days with chinook winds melted the snow rapidly.

The Mammoth-Cody Butte road was open all month. Our snowplow opened the old Tower Falls road from Blacktail to the Petrified Tree on March 23. The road from Mammoth to Obsidian Cliff was opened on the 27th, and by the end of the month all of the roads between Mammoth and Madison Junction had been opened with the plow.

The road from Old Faithful to West Yellowstone was opened by the hotel winter keeper at Old Faithful by truck on March 20.

The following table discloses in inches the snow depths over the park for the past eight years. Without exception this year is less than any of the previous years.

Location	1927	1928	1929	1930	1931	1932	1933	1934
Buffalo Ranch	15	20	16	13	10	24	20	0
Cub Creek		75				60	72	44
Canyon	47	46	38	41	25	72	50	14
Cooke Station	52	52	96	[illegible]	54	66	50	30
Cold Creek			42			22	16	14
Upper Slough Creek	36	28	24	18	14	40	28	12
Lower Slough Creek	30	30	20	10		28	30	2
Tower Falls	18	13	14	12	8	16	20	0
Hellroaring	10	4	10	2		10	30	0
Soda Butte	20	16	16	17	22	30	21	0
Thorofare	36	50	39	45		50	45	24
Miller Creek					22	10	20	0
Upper Miller Creek						56	45	11
Lake Station	44	42	36	[illegible]	19	38	35	16
Cabin Creek						49	54	10
Park Point						48	35	16
Cache Creek		76	54		32		54	26
Crystal Springs	72	49				48	40	20
Old Faithful	48	32	20	30	12	56	46	20
Mountain					12	37	34	8
Madison Junction:					12	37	34	8
Riverside	40	42	30	20	14	47	42	12
Norris	24	29	30	37	17	48	40	16
Grayling Creek		36	28		18	40	40	14
Two Ocean Plateau		81				100	96	20
Snake River	72	70	67	38	40	78	59	24
Snake River - 7 mile post		120	92		83	132	108	61
Fox Creek		69					79	24
Aster Creek		84	69			92	80	40
Beaver River	60	62	84	45	43	60	69	16
Cascade Creek		126	94		56	92	104	48
Boundary Creek:						70	69	17
South Riverside		84	60				72	42
Gallatin Station	26	31	21	40	[illegible]	40	38	15
Sylvan Pass Ranger Station	48	47	30	33	12	36	45	14
Sylvan Pass						35'	12'-20'	7'

022 - Approaches to the Park

The Gardiner-Livingston road remained open all month, and is in excellent condition. The road from Cody to Cooke is open. All of the Jackson Hole roads are closed. The West Yellowstone-Ennis road, which was opened on February 12, has remained passable every day since. The West

Yellowstone-Ashton road was opened by the Idaho State Road Commission on March 21. The Bozeman-West Yellowstone road, which was opened from Bozeman to the Gallatin Ranger station at the end of last month, was opened by the Montana State Highway Department to West Yellowstone on March 26.

The Union Pacific Railway's snowplow arrived at West Yellowstone from Ashton on March 5. Another train arrived in West Yellowstone on March 22.

023 - In Nearby States

The same mild weather conditions which have prevailed in Yellowstone Park have also been reported in surrounding states.

The following paragraph was taken from the Wyoming section of climatological data issued by the U. S. Department of Agriculture:

> "Precipitation over the principal watersheds of Wyoming for the period from September 1, 1933, to January 31, 1934, averaged 55 per cent of normal, and was distributed over the drainage basins as follows: Bear River, 40 per cent of normal; Belle Fourche River 51 per cent; Green River, 60 per cent; North Platte River, 52 per cent; Snake River, 62 per cent; Tongue and Powder Rivers, 74 per cent; and Yellowstone River 68 per cent. The shortage of precipitation was rendered still more serious due to the unusually warm weather."

100 - Administration

110 - Status of Work

Superintendent Toll spent the month in Denver and on the West Coast in connection with the inspection of proposed parks and monuments.

Assistant to the Superintendent Joffe returned from Washington on March 4, where he had been assigned to special work in connection with the preparation of a Report Manual for the Service.

An examination for the position of Guard was announced by the District Civil Service office, the closing date for the filing of applications for which was April 6, 1934. The examination was announced to establish a register from which selection will be made to fill the vacancy created by the retirement because of disability of William J. O'Loughlin.

The 1935 Interior Department appropriation bill received the approval of the President on March 2. This bill provided for the restoration of the name "National Park Service" in lieu of the name which the Service received last August, that of "Office of National Parks, Buildings, and Reservations." This restoration of the old name was extremely welcome to the Park Service officials and employees.

120 - Park Inspections by:

121 - Acting Superintendent

In addition to my duties at the park in connection with Civil Works and other park matters I made several trips to outside points on government business.

On March 1 I drove to Livingston and met Junior Landscape Architect Frank Mattson who was coming to the park in connection with Civil Works projects. Mr. Mattson left on March 9. On March 4 I drove to Livingston and met Assistant to the Superintendent Joffe who was just returning to the park after a three months stay in Washington D.C. on government business. On March 6 I again drove to Livingston to confer with the Park County administrator in regard to Civil Works matters. On the evening of March 11 Mr. Joffe, Mr. Lord and I attended a chamber of commerce dinner at Livingston, in honor of one of the visiting Great Northern officials. We all made short talks.

On the evening of the 21st I drove to Livingston in company with several other Legion members and attended the monthly meeting of the Livingston Post of the American Legion, returning to Mammoth that same evening. On the evening of the 22nd the three Mammoth fire chiefs, and other park employees, including myself, drove to Livingston and attended the weekly fire drill of the Livingston fire department. Considerable good instruction was gained, which will be very valuable to us in our Mammoth drills, which we are also putting on. We returned to Mammoth that same evening. In return for our trip to Livingston four of the Livingston fire department drove to Mammoth on the 24th and we showed them our fire and other equipment, also other points of interest at Mammoth, all of which interested them very much.

On the 26th I drove to Livingston, attended the weekly noon luncheon of the Livingston Rotary Club, then drove to Helena, to confer with the State Relief Administrator in regard to the new employment program which is to replace the Civil Works program. I arrived there that evening. I stayed over until the next day and drove back to Mammoth that evening.

On the 28th Mr. Joffe and I drove to Livingston to attend the chamber of Commerce banquet in honor of visiting stockmen. Mr. Joffe showed two reels of motion pictures which were very well received. We returned to Mammoth that evening.

123 - National Park Service Officers

Frank Mattson, Junior Landscape Architect, from the San Francisco office arrived via the north gate on March 1. He left on the 9th.

125 - Other Governmental Officers

Mr. C.A. Jehle, Manager, National Relief Bureau for Park County,

Montana arrived via the the north gate on March 6 to discuss CCC matters. He left the same day.

Mr. L.E. Sawyer, Engineer for the U. Geological Survey, Boise, Idaho, arrived via the north gate on March 15 to take stream measurements in the park.

Mr. William M. Bush of the U.S. Forest Service and William Sullivan of the Tick Experiment Station, Hamilton, Montana, arrived via the north gate on March 16 and departed on the 21st. These men were making scientific investigations in connection with tick infestations in the park and collected a number of tick specimens to be sent to the tick laboratory at Hamilton.

127 - Other Agencies

Mr. W.J. Butler, Montana State Veterinarian and Dr. Hadleigh Marsh of the Bozeman Montana Experiment Station, arrived via the north gate on March 6. Mrs. Butler and Marsh engaged in the collection of blood samples from elk at the lower Slough Creek Ranch.

140 - Labor Situation

There has been little noticeable change in the unemployment situation. The gradual release of CCC men has placed most of these men back on the re-employment lists. The men are eagerly awaiting the beginning of work on PWA projects. This will offer considerable employment for persons residing in the immediate vicinity of the park. Numerous applications for employment have been coming into the headquarters office from all parts of the country but it has been impossible to offer much encouragement with regard to employment because of the fact that the decreased regular appropriations will prohibit the employment of many new employees and the employees for the projects under the emergency appropriations will have to be selected from the political subdivision in which the work is to be done, which in the case of this park, limits the employment almost entirely to Park County, Montana and Park County, Wyoming.

150 - Equipment and Supplies

Two carloads of lump coal and one carload each of bridge plank and lumber were received as well as shipments of high test gasoline, potatoes, groceries, hardware wrapping paper and office supplies. Activities were largely confined to inventory work and issuing supplies and equipment to CCC and PWA projects.

160 - Status of Alienated Lands

No change in the status of alienated lands was noted during the month.

170 - Plans, Maps and Surveys

All engineering activities were in connection with Civil Works projects, divided about equally between field surveys and sketches and statistical data for final reports of the CWA program. The personnel was reduced by one rodman and one timekeeper during the month.

180 - Circulars, Placards, Publicity Bulletins, etc.

No circulars or Nature Notes were issued during the month. Several news items were released to papers in Livingston and Cody and a number of pictures were distributed for publicity purposes. Mr. Joffe showed several reels of his motion pictures before the Park Post of the American Legion on the 21st and at a meeting of the Livingston Chamber of Commerce and Stockmen on the 20th.

Sixty two sand automobile windshield stickers for 1934 were received on the 15th.

200 - Maintenance, Improvements, and New Construction

210 - Road Maintenance

Snow removal was started on March 23 with the opening of the Mammoth-Tower Junction section. The full snow crew was organized and started out on March 26 and at the end of the month had cleared the section between Mammoth and Madison Junction and four miles of the Norris-Canyon section. As a matter of comparison it might be stated that 18 days was required to open the same mileage last season.

220 - Improvements

Carpenter Shop. Besides the usual maintenance and minor repair work two small cabinets were made for the museum and oak floors laid in the postmaster's quarters.

Painting Department. Work consisted entirely of repair and maintenance.

Electrical Department. The new quarters at the Dude Ranch were wired complete for future lighting (CWA acct. 113). Changes made in wiring and additional outlets installed, in the postmaster's quarters. The usual maintenance and repair work was also carried on.

Shops. Eleven trucks, two passenger cars, one motor patrol and the Snogo snowplow were over hauled during the month, beside usual maintenance of equipment in in operation.

Plumbing Department. In addition to the regular maintenance of plumbing, the master plumber also supervised CWA projects nos. 1 and 8 (Mammoth

Water Main and museum basement) and FP project No. 349, Fire Prevention, and 346, Apartment Building.

230 - New Construction

Six Civil Works projects were active during the month, divided three each for the states of Montana and Wyoming. Public Works project 1349 (Fire Prevention) was active throughout the month.

On March 2, bids were received for the grading of Sec. 1-1-2, Yellowstone Cascades to Canyon. Award was recommended and made to the low bidder, Stevens Brothers, $120,039.90. The award was made on March 16.

On the same day bids were received for the grading of Sec. 4-1-2, South Entrance to Lewis Lake. Award was recommended and made to the low bidder, Olof Nelson, at $205,618.60. The award was made on March 16.

On March 16, bids were received for the slide removal work at Overhanging Cliff. Award was recommended and made to A.J. Groves and Sons Company, the low bidder, at a price of $11,435.00.

Contract Construction. Work on the Golden Gate section was continued by the contractor with some additional equipment installed. The contractor for the slide rock removal at Overhanging Cliff near Lower Falls was assembling equipment during the last week of the month preparatory to starting work early in April.

300 - Activities of Other Agencies in the Park

310 - Public Service Contractors

The general store at Mammoth was open during the entire month. This was the only utility operating.

400 - Flora, Fauna and Natural Phenomena

410 - Ranger, Naturalist and Guide Service

Chief Ranger Haggley was out on the elk count on March 14, 15 and 16, and also made two trips to the trail camp on the Yellowstone River. He drove to Bozeman on March 20, returning to headquarters the same day. The balance of the month he spent on his regular duties including about two weeks on ECW matters.

Assistant Chief Ranger Miller returned from annual leave on March 19. The balance of the month was spent on hoof branding of all government horses, and revising the descriptive cards. He also spent a few days reviewing the ranger manual.

Assistant Chief Ranger Johnston was furloughed, effective March 1, and is now on ECW work in Washington.

Assistant Chief Ranger LeRoue remained in Scottsbluff on his special assignment with the CCC.

Park Ranger Trischman was on supervisory work with the CCC all month.

Chief Buffalo Keeper Douglas and Park Ranger Thomas were in Mammoth repairing the riding and pack saddles. Mr. Douglas took sick the 13th of March and was taken to the hospital in Livingston on the 20th. There he was greatly improved at the end of the month.

420 - Museum Service

The Park Naturalist and Assistant Park Naturalist gave lectures to the CCC employees three Monday evenings during the month. Ranger-naturalists Stagner, Hutchins, Oberhensley, Smith, Condon and Lystrup reported giving lectures on the Yellowstone and clippings were received from newspapers regarding these lectures.

Two museum cases were ordered and a copper plate received for the panorama exhibit on Swan Lake flat. Work was done on the preparation of the Firehole Canyon exhibit, the geologic columnar section, core drill exhibit for Old Faithful Museum.

460 - Birds

Waterfowl have shown an increase over the park during the past month. Larger numbers of ducks and geese are being reported. Counts of swan for the month as made by Park Ranger Elliott at the Lake Ranger station are as follows:

March 14	68	trumpeter	swans on	Yellowstone	River	
" 17	31	"	"	"	"	"
" 18	69	"	"	"	"	"
" 28	68	"	"	and 21 whistler swans on Yellowstone River		

The two trumpeter swans, which have been nesting on Trumpeter Lake near Tower Falls the past few years, have returned and have been seen several times during the month on various bodies of water in that vicinity.

Killdeer have been seen on the warm formations at Great Thumb all winter.

Bluebirds were reported at Tower Falls on March 10 and at Great Yellowstone on March 20.

After the middle of the month the regular spring birds began coming. A meadow lark was seen at Tower Falls on March 23, and a robin on the 27th.

480 - Animals

All game animals are in good condition and due to the mild weather very few losses of animals were noted.

Elk. Due to the lack of snow, and excellent forage conditions, the elk are well scattered. Only 17 tons of hay were fed at Slough Creek through the first 16 days of March. Counts of animals are extremely hard to make. On March 21 and 22 the Forest Service and Park Service attempted to count the Gallatin elk herd, but with no success.

The northern elk herd was counted on March 14, 15 and 16. The location and counts secured are as follows:

Soda Butte to Pebble Creek	34
Soda " " Cache "	561
Cache Creek " Cold "	85
Soda Butte to Buffalo Ranch	327
Buffalo Ranch to Slough Creek, north of Lamar River	1525
Buffalo Ranch to Tower Falls, south of Lamar River	1552
Slough Creek Valley	198
Antelope and Tower Creeks	150
Mount Washburn	7
Slough Creek to Hellroaring	2453
Hellroaring to and including Crevice	201
Tower Falls to and including Blacktail above road	939
Tower Falls to Blacktail above road	475
Mount Everts	423
Upper Gardiner	94
Little Quadrant Mt	121
Sepulcher Mountain	351
Mammoth and vicinity	121
Reese Creek	205
Outside of park (north side) count by U.S.F.S.	330
Willow Park to Norris	11
Norris	27
Fountain to Old Faithful	125
West Yellowstone	275
Bechler River	150
Thoroofare	52
	10,647

Deer. The deer are well scattered over the outer limits of the winter game range. A count at Gardiner, Game Ranch, and Mt. Everts disclosed 363 of these animals. All are noted to be in good condition.

Sheep. Ten large rams, 15 ewes, and 10 lambs are to be seen daily near Tower Falls. All are apparently in excellent condition, except one ewe and one lamb, probably afflicted with mild cases of scabies. During the elk count 125 sheep were counted as follows:

Tower Falls and Hellroaring	56
Gardiner and Mt. Everts	67
Golden Gate	2

Moose. Nothing of interest to report, except that two of these animals were seen between Mammoth and Tower Falls.

Antelope. At Gardiner and the Osse Ranch 321 antelope were counted in connection with the elk count. Also 185 were counted on Mt. Everts and in the vicinity of Mammoth. Eleven antelope were seen at the Slough Creek mail box on March 10, which is considerably earlier than usual for these animals to be in that vicinity.

Buffalo. No feeding is being carried on at the Buffalo Ranch, and very few animals are in that immediate vicinity. A few hundred are on Specimen Ridge, and in the lower Lamar Valley. All are noted to be in excellent condition.

Smaller Animals. Tracks of marten, rabbits, lynx, and coyotes were seen all over the park. A woodchuck was seen out of hibernation at Old Faithful on March 8.

Ranch Activities. Chief Buffalo Keeper Douglas was assigned to Mammoth to repair the riding and pack saddles. Feeding was discontinued at Slough Creek on March 16. Cleaning up and odd repair jobs are being carried on at the Buffalo Ranch. Wooden flumes and headgates are being installed in the ditches on the new addition to the park west of Gardiner.

Bears (black). One black bear was seen at the Tenny Ranch on March 1.

Bears (grizzly). Tracks of one grizzly bear were seen near Bearing Mountain on March 18. A grizzly bear wrecked the interior of the Yellowstone Lake snowshoe cabin the latter part of the month, tearing off the window shutters.

400 - Natural Phenomena

Mammoth

Angel Terrace. The flow over the main portion is about the same as last month. The new activity to the south has decreased greatly, while to the north it has increased. A new small seepage has started on top of the formation.

Blue Springs. On the 26th the volume of water diminished less than half and several large basins were dry until the 28th.

Cleopatra Spring shows no noticeable change from last month.

White Elephant Back Terrace. No change.

Hymen Spring. The increased flow of last month still continues with noticeable deposition of travertine over a wide area. The basins and algae coloring are the most beautiful of any time during the last two years.

Jupiter Spring. There is very little water flowing from the basin.

Main Terrace. Water is flowing from the formation in two places.

Mound Spring is the same as last month

Minerva Spring shows very little activity

New Spring between the Devils Kitchen and Jackpots Cut has ceased flowing.

Orange Spring Mound is the same as last month.

Opal Spring is decreasing.

Palette Spring continues strong covering a wide area on both sides of the Devils Thumb.

Pulpit Terrace. The overflow from Blue Springs is showing up just south of this formation.

A number of fine specimens were collected at Blue Springs while some of the pools were empty.

The park naturalist is cooperating with the engineering department in laying out a new paved walk from Liberty Cap to Minerva Terrace.

Morris Geyser Basin

Observations made by Park Naturalist Sauer. The basin was visited on March 7. There appeared to be a very large number of small steam vents or fumeroles. Porcelain Hill was especially active. Emerald Spring was clear and overflowing slightly. No geysers erupted during the 40 minutes spent in the basin. There was much snow on the north side of the museum but due to the warm earth there was no snow in the basin itself nor on the road from the top of the hill southward for half a mile.

500 - Use of Park Facilities by the Public

510 - Increase or Decrease in Travel

Travel for the month consisted of 300 visitors traveling in 110 automobiles, all entering and leaving the park via the north gate. The travel for the same month last year consisted of 550 visitors traveling in 165 cars.

530 - Special Visitors

There were no special visitors during the month.

600 - Protection

620 - Fire Protection

Two fire drills were held in Mammoth during the last half of the month. A splendid turnout resulted at these drills, and much enthusiasm was displayed. It is planned to hold fire drills weekly until everyone becomes more familiar with the apparatus and equipment used in the suppression of building fires.

900 - Miscellaneous

CWA Program

The CWA program continued throughout the month and because of the excellent weather no time was lost by the men engaged in these projects. The regular 11½ reduction in the force was made each week during the month and by the end of the month there were 60 men still engaged, 30 each from the states of Montana and Wyoming. The decision to continue the work in the park until May 1 will provide some employment for a few of the men and will relieve, to a small extent, the employment situation in Gardiner, Livingston and Cody. Practically all of the original projects undertaken were 100% completed by the end of the month. There is still some work to be done on the Lift House and a great deal of work yet to be done on the Crevice Trail.

ECW

Plans for the operation of six ECW camps have been made for Yellowstone. Practically all of the projects have been worked up. Advance data sheets have been prepared, and have been sent to the Director and War Department. Equipment and cost estimates have been prepared. Needed personnel for proper handling of ECW projects have been planned. The preparation of various ECW plans required additional assistance and on March 28 Chester Johnson was recommended for appointment on the ECW payroll. Arthur Jacobson was recommended for appointment on April 2. At the present time Mr. Johnson is working up a trail manual for use in ECW camps, based on National Park Service standards and landscaping. Mr. Jacobson is working on visibility maps of the park.

Post Office. Business in the postoffice was approximately the same volume as it was for the month of March in 1933.

Church Services. Services were held in the chapel on Sunday morning March 4, by Rev. L.D. Smith.

Hospital and Medical. Dr. Ivan I. Radeff, resident physician had 188 office calls and made 57 home calls.

A regular meeting of the Federal Employees Union 465 was held in the canteen on March 5 and a special meeting was called for the 19th. Following the meeting of the 5th the male members of the local union produced a minstrel show which they called the "Albers Minstrel." This was a decided hit with the audience of about 150 people. The show was followed by a dance and eats. Not to be outdone, the wives of the members and several of the single female members will provide an entertainment to follow the next meeting, April 2. They promise one far superior to the show put on by the men.

Mr. and Mrs. Hugh Ebert are the proud parents of a baby girl born in the Park Hospital, Livingston, on the 13th. Mr. Ebert has been engaged as a truck driver in the park for several seasons and also operates the snowplow in opening the park roads in the spring.

A number of our employees who are members of the Park Post of the American Legion attended the regular monthly meeting on March 21, at which meeting nominations were made for the ensuing year. Assistant to the Superintendent Joffe was nominated for Commander, while Chief Clerk Hundley was nominated for the Third Vice Commander and a member of the Executive Committee. Acting Superintendent Edwards was also nominated as a member of the Executive Committee. Election of officers will take place on April 18.

The park legionnaires have been able to maintain fine spirit of cooperation and friendship with the Livingston legionnaires through their attendance at the meetings and their activities in the Livingston organization.

The Mammoth Chess Club was entertained by the Livingston club in Livingston on the 24th. Kings, Queens, Knights and Pawns rode across the chess boards until the wee small hours of the morning and when the final results were tabulated the Mammoth chessers came out victorious by a wide margin.

Mr. and Mrs. William H. Riley celebrated their golden wedding anniversary in the park on March 20. As far as our records show and from the memories of old-timers here, this is the first golden anniversary that has been celebrated in the park. Mr. Riley has been in the employ of the National Park Service since 1919 and at present is one of the operators at the government power plant. Several parties and surprise visits, by park people, were had for the Rileys on the occasion of their anniversary.

It has been interesting to note the enthusiasm which has resulted from the golf practice course which has been made at the old rifle range at Gardiner. Most every evening, while the weather has been good, some dozen or more of our employees have gone to the golf grounds after work and partaken of several holes of "cow pasture" golf. On Saturday afternoons and on Sundays there have been 20 or more of our people on the grounds. While the course itself could not be considered a golf course, nevertheless it offers an opportunity for outdoor recreation which many of our employees would not otherwise avail themselves of. It has been surprising to note how many of our people have purchased sets of golf clubs in order to engage in this game. Very few have ever played before. It is

believed that a great deal of good will result to our people through the starting of this practice course and we hope that we will be permitted to improve it later on, with government funds, so that many of the disagreeable features of it will be eliminated. All of the work done on the course to date has been accomplished with funds collected from those who are participating in this new source of recreation.

Sincerely yours

Guy D. Edwards
Acting Superintendent

ALABAMA MINSTRELS
Presented March 5, 1934, the cast of which was composed of members of Federal Employees Union, Local No. 465.

MR. AND MRS. WILLIAM H. RILEY
who celebrated their Golden Wedding Anniversary on March 20, 1934.

Site of the new apartment house to be constructed at park headquarters at Mammoth Hot Springs. The building in the foreground will be moved to a new location.

10-157
(July, 1929)

DEPARTMENT OF THE INTERIOR

NATIONAL PARK SERVICE

TRAVEL REPORT

Yellowstone National Park for the Month of March 1934

	This Month	This Travel Year To Date	This Month Last Year	Last Travel Year To Date	Increase for Travel Year Number	Increase for Travel Year Percent
PRIVATE TRANSPORTATION:						
Cars first entry, ...	110	2560	165	2125	435	20.5
Cars reentry, ...		82		89	-7	-7.5
Motorcycles, ...		3			3	300.
Total motor vehicles, ...	110	2645	165	2214	431	19.4
Persons entering via motor vehicles, ...	300	8321	550	7364	957	13.
Persons entering via other private transportation, ...						
Total persons entering via private transportation, . . .	300	8321	550	7364	957	13.
OTHER TRANSPORTATION:						
Persons entering via stages, . .						
Persons entering via trains, .						
Persons entering otherwise, . .						
Total other transportation, .						
GRAND TOTAL ALL VISITORS, . . .	300	8321	550	7364	957	13.

	This Year	Last Year	Increase Number	Increase Percent
Automobiles in public camps during month, ...				
Campers in public camps during month, ...				

10-157
uly, 1929)

DEPARTMENT OF THE INTERIOR

NATIONAL PARK SERVICE

TRAVEL REPORT

Yellowstone National Park for the Month of June, 1929

	This Month	This Travel Year To Date	This Month Last Year	Last Travel Year To Date	Increase for Travel Year Number	Increase for Travel Year Percent
PRIVATE TRANSPORTATION						
Cars first entry,	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Cars reentry,	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Motorcycles,	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Total motor vehicles	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Persons entering via motor vehicles,	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Persons entering via other private transportation,						
Total persons entering via private transportation	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
OTHER TRANSPORTATION						
Persons entering via stages,						
Persons entering via trains,						
Persons entering other ways,						
Total other transportation						
GRAND TOTAL ALL VISITORS	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

	This Year	Last Year	Increase Number	Increase Percent
Automobiles in public camps during month,				
Campers in public camps during month,				

10-160

DEPARTMENT OF THE INTERIOR

NATIONAL PARK SERVICE

REPORT OF PARK REVENUES

Yellowstone National Park for the Month of March, 1934

	This Year	Last Year
Park revenue on hand beginning of month,	-	$ 4.35
Received,	$65.10	31.65
Total,	$65.10	$ 36.00
Remitted,	65.10	36.00
On hand close of month,	-	-

Park revenues received this year to date,	$128,803.02
Park revenues received last year to date,	$132,007.09
Decrease,	$ 3,204.07
Per cent of decrease,	2.4272

DEPARTMENT OF THE INTERIOR

NATIONAL PARK SERVICE

REPORT OF PARK REVENUES

Yellowstone National Park for the Month of March, 1954

	This Year	Last Year
ark revenue on hand beginning of month,	-	$ 4.55
eceived,	[illegible]	[illegible]
Total,	[illegible]	$ 36.00
emitted,	[illegible]	36.00
hand close of month,	-	-

ark revenues received this year to date,	[illegible]
ark revenues received last year to date,	[illegible]
Increase,	$ [illegible]
Per cent of increase,	[illegible]

10-159
(May, 1931)

UNITED STATES

DEPARTMENT OF THE INTERIOR

NATIONAL PARK SERVICE

STATUS OF PERSONNEL

YELLOWSTONE National Park for the Month of [illegible], 19[illegible]

	This Month		This Month Last Year	
	Appointed	Non-Appointed	Appointed	Non-Appointed
Number of employees beginning of month	76	*[illegible]	75	[illegible]
Number of additions	[illegible]	**[illegible]	1	[illegible]
Total	79	[illegible]	[illegible]	[illegible]
Number of separations	[illegible]	***[illegible]	0	[illegible]
Number of employees close of month	78	****[illegible]	75	[illegible]
Number of promotions during month	0			
furlough				
Aggregate amount of annual leave taken	[illegible]		[illegible]	
Aggregate amount of sick leave taken	[illegible]		[illegible]	
Aggregate amount of leave without pay	11		15	

Includes 2 PCW appointments
" 1 " separation
" 8 " employees
three days should have been for February

*Includes 11 PT employees
** " [illegible] " "
*** " [illegible] " "
**** " [illegible] " "

0-162

UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

REPORT OF TELEPHONE AND TELEGRAPH BUSINESS

National Park for the Month of

	This Month	This Month Last Year	Increase	Percent Increase
OCAL BUSINESS				
iles of circuit maintained,	[illegible]	[illegible]	[illegible]	[illegible]
o. of telephones connected,	[illegible]	197	[illegible]	[illegible]
o. of measured service calls,				
o. of other local calls,				
otal No. of local calls,	[illegible]	[illegible]	[illegible]	[illegible]
eak load in calls per day,	[illegible]	[illegible]	[illegible]	[illegible]
eceipts from measured service calls,				
" " coin boxes,				
" " telephone rental.				
TOTAL RECEIPTS				
ONG DISTANCE BUSINESS				
o. Outbound calls,	[illegible]	[illegible]	[illegible]	[illegible]
o. Inbound calls,	[illegible]	[illegible]	[illegible]	[illegible]
TOTAL LONG DISTANCE CALLS				
eak load in calls per day.		[illegible]		
eceipts from Long Distance business,				
ELEGRAPH BUSINESS				
essages via Western Union,				
essages via				
TOTAL MESSAGES				
eceipts from telegraph business.				
o. of money transfer messages,				
" " " " receipts.				
OTAL RECEIPTS TELEPHONE & TELEGRAPH DEPTS-				

UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

REPORT OF TELEPHONE AND TELEGRAPH BUSINESS

National Park for the Month of

	This Month	This Month Last Year	Increase	Percent Increase
AL BUSINESS				
es of circuit maintained.				
of telephones connected,				
of measured service calls,				
of other local calls,				
al No. of local calls,				
k load in calls per day.				
eipts from measured service calls.				
" " coin boxes.				
" " telephone rental.				
TOTAL RECEIPTS				
G DISTANCE BUSINESS				
Outbound calls.				
Inbound calls.				
TOTAL LONG DISTANCE CALLS				
k load in calls per day.				
eipts from Long Distance business.				
EGRAPH BUSINESS				
sages via Western Union.				
sages via				
TOTAL MESSAGES				
eipts from telegraph business				
of money transfer messages,				
" " " receipts.				
AL RECEIPTS TELEPHONE & TELEGRAPH DEPTS-				

DEPARTMENT OF THE INTERIOR

NATIONAL PARK SERVICE

STATUS OF AUTHORIZED PROJECTS

[illegible] National Park for the Month of [illegible].

Description of Projects	Percent Constructed To Date	Percent Constructed This Month	Percent Constructed Last Month	Probable Date of Completion

10-163

UNITED STATES

DEPARTMENT OF THE INTERIOR

NATIONAL PARK SERVICE

*ELECTRICITY GENERATED, SOLD, USED, ETC.

[illegible] National Park for the Month of [illegible]

	This Month	This Travel Year To Date	This Month Last Year	Last Travel Year To Date	Increase for Travel Year Number	Increase for Travel Year Percent
Current generated,	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Sold to park operators,	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Sold to others,						
Furnished to other Governmental agencies,						
Used by National Park Service, lost in transit, etc.	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Total current generated,	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Amount receivable from the sale of electricity, $ [illegible]

* Indicated by K. W. H.

SUMMARY OF WEATHER CONDITIONS
at
MAMMOTH HOT SPRINGS, YELLOWSTONE NATIONAL PARK

MARCH, 1934

Closing the warmest winter on record here, March temperatures averaged 35.8 degrees, or 7.0 degrees higher than February's, and 7.4 degrees higher than those of last March. The normal mean temperature for the month is 26.5 degrees. The average daily departure from normal, for March, 1934, is accordingly plus 9.3 degrees. This is a greater departure from normal than is shown by any other month of this record-breaking warm winter. While March exhibits a greater departure from normal than any recent month, and has the highest mean temperature for the month in the last 24 years (i.e., since 1910), it is not the warmest March on record. The mean for March, 1910, was 38.0 degrees. Two other Marches, slightly warmer than the one just past, were on record prior to 1910.

No zero temperatures were recorded during the month, the lowest reading of the thermometer being 8 degrees, on the 17th. On only one day, the 23d, did the temperature stay continuously below the freezing point. The highest point reached was 59, on the 14th. Twenty nine days were above normal, and two days below normal. As only four days were below normal temperature in January, and four in February, there have been but ten days below normal thus far this year. The daily departures from normal since the beginning of the year have totalled 817 degrees, an average of 9.1 degrees a day.

A total of only 0.10 inch of precipitation was received during the first 15 days of the month. This was .71 inch less than normal. The rest of the month produced an almost normal amount of rain and snow for the period. The total for the whole month was 0.96 inch, which was .72 inch less than the March normal. March last year had less, but in most years the March total is of course greater. The greatest amount in 24 consecutive hours was 0.38 inch, on the 28th-29th. We must go back in the records as far as March, 1889, to find the single March with less snowfall than this one. In that year the total for March was 1.8 inches; this year it was 3.9. The greatest March snowfall total on record, 31.2 inches, was in March, 1886, one year earlier than the low record. The total snowfall, to date, for the present season, is 48.4 inches. The exceptionally low seasonal total of 19.7 inches, in 1914-1915 is the only total snowfall lower than this season's total.

During the month there were 5 clear days, 11 partly cloudy, and 13 cloudy days. Precipitation amounting to .01 inch or more occurred on 12 days. Duration of bright sunshine was 58 per cent. of the possible time. The average wind velocity was 8.5 miles per hour, with a maximum at the rate of 25 miles per hour, from southwest, on the 8nd.

W. T. LATHROP, Meteorologist.

No. 1030—Met'l.

U. S. DEPARTMENT OF AGRICULTURE, WEATHER BUREAU.

MONTHLY METEOROLOGICAL SUMMARY.

tion, Yellowstone Park, Wyo. *; month,* March *, 19* 34.

Temperature. (Degrees Fahrenheit.) Max.	Min.	Mean.	Precipitation. (In inches and hundredths.)	Character of day.	Per cent. of Possible Sunshine
43	29	36	.05	Cloudy	54
41	25	33	.04	Cloudy	22
39	21	30	T.	Cloudy	37
41	29	35	0	Pt.Cl'dy	75
43	27	35	.01	Cloudy	29
42	25	34	T.	Pt.Cl'dy	69
37	20	28	T.	Pt.Cl'dy	73
41	21	31	0	Cloudy	37
43	20	32	T.	Pt.Cl'dy	70
55	20	38	0	Clear	100
53	27	40	0	Pt.Cl'dy	86
56	25	40	0	Clear	100
49	27	38	0	Pt.Cl'dy	65
59	33	46	0	Pt.Cl'dy	55
56	35	46	0	Pt.Cl'dy	98
47	12	30	.16	Cloudy	18
41	8	24	0	Clear	99
50	29	40	0	Cloudy	55
57	31	44	0	Pt.Cl'dy	89
52	34	43	.05	Cloudy	36
48	32	40	.01	Cloudy	29
38	23	30	.02	Pt.Cl'dy	59
31	14	22	T.	Clear	67
51	12	32	0	Clear	99
45	21	33	0	Pt.Cl'dy	63
50	18	34	0	Cloudy	64
49	37	43	.02	Cloudy	22
53	32	42	.26	Cloudy	41
49	26	38	.16	Cloudy	40
46	28	37	.15	Cloudy	20
43	30	36	.03	Cloudy	38
46.7	24.9	35.8	Total. 0.96		58

ATMOSPHERIC PRESSURE.
(Reduced to sea level; inches and hundredths.)

Mean 30.118; highest 30.67, date 9
lowest 29.50, date 16

TEMPERATURE.

Highest 59, date 14; lowest 8, date 17
Greatest daily range 59, date 24
Least daily range 12, date 4

MEAN FOR THIS MONTH IN—

1871	82	93	24.2	04	25.2	15	30.4	26	20.2		
1872	83	94	27.2	05	32.3	16	32.4	27	26.7		
1873	84	95	....	06	19.6	17	13.8	28	30.0		
1874	85	96	24.9	07	29.6	18	31.8	29	28.2		
1875	86	97	19.5	08	25.2	19	20.2	30	25.8		
1876	87	36.0	98	20.9	09	22.0	20	23.5	31	27.0	
1877	88	22.8	99	23.0	10	38.0	21	30.0	32	21.6	
1878	89	36.1	00	34.0	11	31.9	22	26.5	33	28.4	
1879	90	26.2	01	27.2	12	17.6	23	21.8	34	35.8	
1880	91	22.2	02	25.0	13	22.3	24	22.1	35		
1881	92	27.9	03	28.7	14	30.5	25	29.8	36		

Normal for this month 26.5
Absolute maximum for this month for 48 years 62
Absolute minimum for this month for 48 years -25
Average daily excess (+) or deficiency (−) of this month as compared with the normal +9.3
Accumulated excess (+) or deficiency (−) since January 1 +817
Average daily excess (+) or deficiency (−) since January 1 +9.1

PRECIPITATION.

Total this month 0.96; snowfall 3.9
Greatest precipitation in 24 hours 0.38, date 28-29
Greatest 24-hour snowfall 1.4, date 16
Snow on the ground at end of month 0

TOTAL PRECIPITATION THIS MONTH IN—

1871	82	93	0.96	04	2.98	15	1.05	26	0.56		
1872	83	94	2.30	05	1.41	16	1.46	27	0.65		
1873	84	95	2.79	06	1.55	17	1.99	28	1.60		
1874	85	96	2.62	07	4.56	18	1.89	29	1.03		
1875	86	97	1.06	08	1.39	19	1.00	30	1.10		
1876	87	....	98	1.40	09	0.77	20	1.95	30	0.80	
1877	88	....	99	3.00	10	0.82	21	1.24	31	1.23	
1878	89	0.53	00	3.13	11	0.95	22	0.36	32	0.54	
1879	90	4.92	01	1.46	12	2.57	23	1.00	33	0.96	
1880	91	2.41	02	2.46	13	2.00	24	1.21	35		
1881	92	3.05	03	0.85	14	0.36	25	1.00	36		

Normal for this month 1.68
Excess (+) or deficiency (−) of this month as compared with the normal -0.72
Accumulated excess (+) or deficiency (−) since January 1 -2.79

MEAN RELATIVE HUMIDITY (Percentage).

6 a. m., 74.1; local noon, 46.6; 6 p. m. 48.6

WIND.

Prevailing direction SW.; total movement 6,295 miles; average hourly velocity 8.5; maximum velocity (for five minutes) 25 miles per hour, from southwest on 2nd.
Maximum wind velocity this month since 1904 (By four-cup anemometer) 43-south, 1921

WEATHER.

Number of days, clear 5; partly cloudy 11; cloudy 15
on which .01 inch, or more, of precipitation occurred 12

MISCELLANEOUS PHENOMENA (dates of).

Auroras none; halos: solar 19, 25, 26, lunar 26, 31
Hail 29; sleet 5, 30; fog (dense) 22, 29
Thunderstorms none
*Frost: light ....; heavy ....; killing ....

NOTE.—"T" indicates trace of precipitation.

tl e autumn frosts are not recorded after the occurrence of "killing," except in Florida and along the immediate coast of the Gulf of Mexico.

Lowest relative humidity observed, 20%, 6 p.m., 24th.

W. T. LATHROP,
Meteorologist *Weather Bureau.*

10 0 GOVERNMENT PRINTING OFFICE

Form No. 1030—Met'l.

U. S. DEPARTMENT OF AGRICULTURE.

WEATHER BUREAU.

MONTHLY

METEOROLOGICAL SUMMARY.

STATION

MONTH

, 19

8—1650 U. S. GOVERNMENT PRINTING OFFICE: 1920