



Digitized by the Internet Archive
in 2013

<http://archive.org/details/superintendentso00unse>

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

EA

FILE NO.

MONTHLY REPORT

JANUARY, 1932

YELLOWSTONE
NATIONAL PARK
LIBRARY

~~197~~
4634

IMPORTANT

This file constitutes a part of the official records of the National Park Service and should not be separated or papers withdrawn without express authority of the official in charge. All Files should be returned promptly to the File Room. Officials and employees will be held responsible for failure to observe these rules, which are necessary to protect the integrity of the official records.

HORACE M. ALBRIGHT,
Director.

DEPARTMENT OF THE INTERIOR

NATIONAL PARK SERVICE

YELLOWSTONE NATIONAL PARK

YELLOWSTONE PARK, WYO.

OFFICE OF THE SUPERINTENDENT

February 4, 1932

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

Dear Mr. Director:

Following is the report of activities of the Yellowstone National Park for the month of January 1932:

000 - General

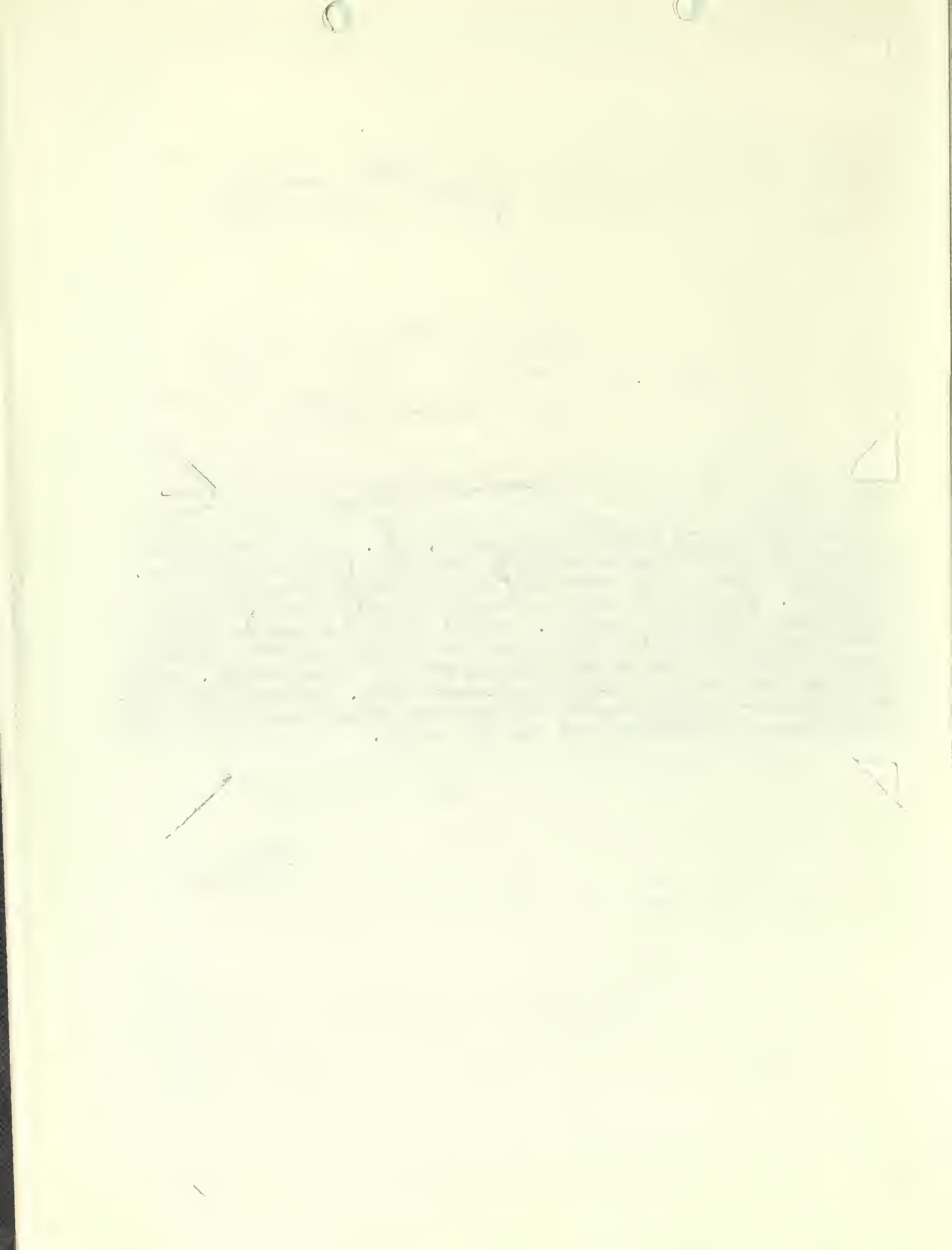
The park enjoyed some good old-fashioned winter weather during January, the kind the old-timers talk about, and several sub-zero temperatures were recorded while the snowfall was considerably above the average. The lowest temperature recorded was 15° below zero on the 31st. January 1931 and January 1930 were extremely opposite so far as weather was concerned, the former recording no temperatures below zero and very little snowfall while the latter was the coldest month of any during the period of official record. This January has enjoyed a happy medium and while the park experienced both cold weather and heavy snowfall there were no notable extremes. The snow is most welcome and lessens the danger for a bad fire season next summer. The snowfall in the interior of the park was also quite heavy and all states adjoining the park reported heavy precipitation, mostly in the form of snow. While the ground around Mammoth was practically bare by the first of February last year, at the same time this year there was over 20 inches of snow on the level and many drifts measuring 4 and 5 feet.

Mr. L. E. Orr, movie photographer for the Fox Movietone Company, and James Parker, sound technician, arrived in the park early in January and spent the entire month recording in sound pictures the wild animals and other park features. Some of the results of their efforts have already been released in theaters throughout the country and many favorable comments have been sent into the park as to the interest they are creating. Much valuable publicity is expected to result from their work and we have rendered every possible assistance to aid them in getting satisfactory pictures. A one hundred mile ski trip to Old Faithful was made by both of the men to get movies of the geysers in winter. Early in February Mr. Orr will make a trip over the park by plane to photograph the wild animals and geysers. This will be the



Snow conditions at Mammoth on January 12, 1932. Upper picture shows large drift in front of engineering office behind administration building. Numerous drifts several feet deep resulted from the heavy snowfall and strong winds. Lower picture shows automobile stuck in drift in front of administration building on same day. Several snowstorms occurred between the 12th and the end of the month so that many of the drifts were enlarged and over 20 inches of snow on the level was reported around Mammoth. Last year at the same time the ground was practically bare. The need for a snow-plow to keep the roads open during the winter and to open them in the spring has never been better demonstrated than this winter.





first attempt to make air photographs of the park in winter. Chief Ranger Baggley will accompany Mr. Orr on the trip to determine the feasibility of making game counts from the air. The dates for the trip depend entirely upon weather conditions but February 4 has been tentatively selected for the journey.

020 - General Weather Conditions

January was a markedly cold month, without notable extremes. That is to say, it was characterized by the continuance mainly of steady cold weather. Normally the month, the normal temperature of which is 17.6 degrees, is the coldest month of the year. When a passing January averages decidedly below normal, as did January, 1932, the cold is felt, though not, of course, so uncomfortably as when there is an occasional day with minimum temperature in the twenties or thirties below zero. Thus, while the past month was a cold month, the absence of great negative departures permitted it to be considered as a fairly comfortable month for January. The alternation of periods above and below normal evened up the departures during the first 12 days, so that there was no accumulated departure at the close of the 12th. From then on, however, there was always an accumulated negative departure, with all days except the 18th, 19th, and 20th, below normal. The highest temperature of the month, 35 degrees, was registered on the 19th. With a mean temperature of 13.7, January averaged 5.9 degrees per day below normal. The lowest temperature, -15 degrees, occurred in the morning of the 31st, but a welcome chinook terminated the cold spell before midnight on the same day. A temperature of 14 degrees below zero was recorded on the 13th.

The precipitation of January, 1932, was all in the form of snow, of which the total fall, to 6 p.m. of the 31st was 20.2 inches, producing 0.83 inch of water. Only five days of the month failed to produce some snow, and measurable amount, melted, occurred on 17 days. There were no very heavy snowfalls within 24 hours, the greatest being 4.7 inches on the 9th-10th, but an excellent snow cover persisted during the month. The least depth of snow on the ground was 14.7 inches, on the 4th. The greatest depth was 20.8 inches at the last observation of the month, 6 p.m. on the 31st.

Four days averaged clear, eight partly cloudy, and 19 cloudy. Sunshine was 38 per cent of the possible duration. Relative humidity was high, averaging 77.8 per cent, 67.6 and 73.8, respectively, at the three daily observations, 6 a.m., noon local mean time, and 6 p.m. The prevailing wind was from south, with southwest a close second. The total monthly movement was 6,081 miles, giving an average hourly velocity of 3.2 miles.

The use of the 4-cup Robinson anemometer was resumed on the 1st as the standard for measurement of wind movement.

THESE ARE THE TERMS AND CONDITIONS OF THE SALE OF THE GOODS
AND SERVICES OFFERED BY THE COMPANY AND BY THE VENDOR
AND ALL SUCH TERMS AND CONDITIONS SHALL BE DEEMED TO HAVE
BEEN ACCEPTED BY THE BUYER AT THE TIME OF PURCHASE.

TERMS AND CONDITIONS OF SALE

1. THE BUYER SHALL BE RESPONSIBLE FOR THE PAYMENT OF ALL TAXES
AND DUTIES IN CONNECTION WITH THE SALE OF THE GOODS.
2. THE BUYER SHALL BE RESPONSIBLE FOR THE FREIGHT AND
INSURANCE CHARGES IN CONNECTION WITH THE SALE OF THE
GOODS.
3. THE BUYER SHALL BE RESPONSIBLE FOR THE DELIVERY OF THE
GOODS TO THE PLACE OF DESTINATION.
4. THE BUYER SHALL BE RESPONSIBLE FOR THE UNLOADING OF THE
GOODS AT THE PLACE OF DESTINATION.
5. THE BUYER SHALL BE RESPONSIBLE FOR THE PROTECTION OF THE
GOODS FROM LOSS OR DAMAGE.
6. THE BUYER SHALL BE RESPONSIBLE FOR THE PROTECTION OF THE
GOODS FROM THEFT OR UNAUTHORIZED USE.
7. THE BUYER SHALL BE RESPONSIBLE FOR THE PROTECTION OF THE
GOODS FROM VANDALISM OR OTHER UNLAWFUL ACTS.
8. THE BUYER SHALL BE RESPONSIBLE FOR THE PROTECTION OF THE
GOODS FROM WEATHER DAMAGE.
9. THE BUYER SHALL BE RESPONSIBLE FOR THE PROTECTION OF THE
GOODS FROM PESTS AND VERMIN.
10. THE BUYER SHALL BE RESPONSIBLE FOR THE PROTECTION OF THE
GOODS FROM FIRE AND OTHER DISASTERS.
11. THE BUYER SHALL BE RESPONSIBLE FOR THE PROTECTION OF THE
GOODS FROM COLLISION AND OTHER ACCIDENTS.
12. THE BUYER SHALL BE RESPONSIBLE FOR THE PROTECTION OF THE
GOODS FROM ALL OTHER CAUSES OF LOSS OR DAMAGE.
13. THE BUYER SHALL BE RESPONSIBLE FOR THE PROTECTION OF THE
GOODS FROM ALL OTHER CAUSES OF LOSS OR DAMAGE.
14. THE BUYER SHALL BE RESPONSIBLE FOR THE PROTECTION OF THE
GOODS FROM ALL OTHER CAUSES OF LOSS OR DAMAGE.
15. THE BUYER SHALL BE RESPONSIBLE FOR THE PROTECTION OF THE
GOODS FROM ALL OTHER CAUSES OF LOSS OR DAMAGE.

16. THE BUYER SHALL BE RESPONSIBLE FOR THE PROTECTION OF THE
GOODS FROM ALL OTHER CAUSES OF LOSS OR DAMAGE.
17. THE BUYER SHALL BE RESPONSIBLE FOR THE PROTECTION OF THE
GOODS FROM ALL OTHER CAUSES OF LOSS OR DAMAGE.
18. THE BUYER SHALL BE RESPONSIBLE FOR THE PROTECTION OF THE
GOODS FROM ALL OTHER CAUSES OF LOSS OR DAMAGE.
19. THE BUYER SHALL BE RESPONSIBLE FOR THE PROTECTION OF THE
GOODS FROM ALL OTHER CAUSES OF LOSS OR DAMAGE.
20. THE BUYER SHALL BE RESPONSIBLE FOR THE PROTECTION OF THE
GOODS FROM ALL OTHER CAUSES OF LOSS OR DAMAGE.

21. THE BUYER SHALL BE RESPONSIBLE FOR THE PROTECTION OF THE
GOODS FROM ALL OTHER CAUSES OF LOSS OR DAMAGE.
22. THE BUYER SHALL BE RESPONSIBLE FOR THE PROTECTION OF THE
GOODS FROM ALL OTHER CAUSES OF LOSS OR DAMAGE.
23. THE BUYER SHALL BE RESPONSIBLE FOR THE PROTECTION OF THE
GOODS FROM ALL OTHER CAUSES OF LOSS OR DAMAGE.
24. THE BUYER SHALL BE RESPONSIBLE FOR THE PROTECTION OF THE
GOODS FROM ALL OTHER CAUSES OF LOSS OR DAMAGE.
25. THE BUYER SHALL BE RESPONSIBLE FOR THE PROTECTION OF THE
GOODS FROM ALL OTHER CAUSES OF LOSS OR DAMAGE.

26. THE BUYER SHALL BE RESPONSIBLE FOR THE PROTECTION OF THE
GOODS FROM ALL OTHER CAUSES OF LOSS OR DAMAGE.
27. THE BUYER SHALL BE RESPONSIBLE FOR THE PROTECTION OF THE
GOODS FROM ALL OTHER CAUSES OF LOSS OR DAMAGE.

021 - In the park

Snow storms and cold weather prevailed during the entire month and were generally followed by high winds which, in time, caused many high drifts. The Mammoth-Cooke road suffered considerable from snows and cold weather, making difficult the carrying of the mail to Cooke, Montana. The Mammoth-Gardiner road was closed to travel for a few short periods but we were always able to open this section with a tractor and blade. The roads within Mammoth proper were very heavily drifted at times which in turn halted travel until opened by road machinery. All in all this is the worst winter Yellowstone has suffered since the winter of 1926-27.

The following tables disclose the various snow depths of Yellowstone National Park according to drainage:

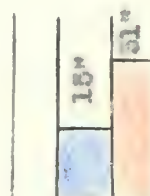
<u>Yellowstone Drainage</u>	<u>1930</u>	<u>1931</u>	<u>1932</u>	<u>1935</u>
Buffalo Ranch	14	8	22	15
Canyon	33	15	36	15
Cooke	24	17	32	23
Cold Creek	--	15	24	30
Mammoth	3	9	31	20
Upper Slough Creek	24	12	24	24
Lower Slough Creek	20	12	24	24
Tower Falls	13	14	24	15
Hellroaring	12	8	23	22
Soda Butte	21	18	22	14
Thorofare	33	15	30	25
Miller Creek	--	18	20	30
Upper Miller Creek	--	--	28	40
Lake	32	11	29	31
Cabin Creek	--	-- ¹⁴	25	17
Park Point	--	--	24	16
Cache Creek	--	24	--	46
Crystal Springs	--	11	30	50

Average
Snow
Cover



Madison River Drainage

Old Faithful	--	14	41	41
Fountain	--	14	18	15
Madison Junction	--	-- ¹⁴	20	18
Riverside	27	16	36	15
Norris	23	16	30	20
Graying Creek	--	--	36	15



The following information was obtained from the records of the Department of Health and Human Services, Office of the Assistant Secretary for Health, regarding the activities of the National Health and Medical Research Council (NH&MRC) in the area of research on the health effects of asbestos. The NH&MRC has been instrumental in the development of the National Asbestos Register (NAR) and the National Asbestos Survey (NAS). The NAR is a comprehensive database of asbestos-containing materials (ACM) in buildings and structures across Australia. The NAS is a large-scale survey of ACM in residential buildings, including houses, apartments, and townhouses. The NH&MRC has also funded a number of research projects aimed at understanding the health effects of asbestos, particularly in relation to lung cancer and mesothelioma. These projects have involved the use of epidemiological methods, such as cohort studies and case-control studies, as well as laboratory-based research on the biological mechanisms of asbestos-induced carcinogenesis. The NH&MRC has also been involved in the development of guidelines and standards for the management of asbestos in buildings, and in the provision of information and education to the public about the risks of asbestos exposure.

The following information was obtained from the records of the Department of Health and Human Services, Office of the Assistant Secretary for Health, regarding the activities of the National Health and Medical Research Council (NH&MRC) in the area of research on the health effects of asbestos. The NH&MRC has been instrumental in the development of the National Asbestos Register (NAR) and the National Asbestos Survey (NAS). The NAR is a comprehensive database of asbestos-containing materials (ACM) in buildings and structures across Australia. The NAS is a large-scale survey of ACM in residential buildings, including houses, apartments, and townhouses. The NH&MRC has also funded a number of research projects aimed at understanding the health effects of asbestos, particularly in relation to lung cancer and mesothelioma. These projects have involved the use of epidemiological methods, such as cohort studies and case-control studies, as well as laboratory-based research on the biological mechanisms of asbestos-induced carcinogenesis. The NH&MRC has also been involved in the development of guidelines and standards for the management of asbestos in buildings, and in the provision of information and education to the public about the risks of asbestos exposure.



1990-1995

1996-2000

2001-2005

Asbestos-containing materials (ACM) in buildings and structures across Australia. The NAR is a comprehensive database of ACM in buildings and structures across Australia. The NAS is a large-scale survey of ACM in residential buildings, including houses, apartments, and townhouses. The NH&MRC has also funded a number of research projects aimed at understanding the health effects of asbestos, particularly in relation to lung cancer and mesothelioma. These projects have involved the use of epidemiological methods, such as cohort studies and case-control studies, as well as laboratory-based research on the biological mechanisms of asbestos-induced carcinogenesis. The NH&MRC has also been involved in the development of guidelines and standards for the management of asbestos in buildings, and in the provision of information and education to the public about the risks of asbestos exposure.



1990-1995

1996-2000

2001-2005

Asbestos-containing materials (ACM) in buildings and structures across Australia. The NAR is a comprehensive database of ACM in buildings and structures across Australia. The NAS is a large-scale survey of ACM in residential buildings, including houses, apartments, and townhouses. The NH&MRC has also funded a number of research projects aimed at understanding the health effects of asbestos, particularly in relation to lung cancer and mesothelioma. These projects have involved the use of epidemiological methods, such as cohort studies and case-control studies, as well as laboratory-based research on the biological mechanisms of asbestos-induced carcinogenesis. The NH&MRC has also been involved in the development of guidelines and standards for the management of asbestos in buildings, and in the provision of information and education to the public about the risks of asbestos exposure.

<u>Snake River Drainage</u>	<u>1930</u>	<u>1931</u>	<u>1932</u>	Average Snow Cover
Two Ocean Plateau	--	40	54	30 31 32
Snake River	41	23	50	60"
Snake River (7 Mi.F.)	--	30	72	
Mink Creek	--	--	38	
Fox Creek	--	26	38	
Aster Creek	--	23	68	31"
Bechler River	40	32	63	26
Cascade	--	44	71	
Boundary Creek	--	--	59	
South Riverside	--	25	60	



Gallatin River Drainage

Gallatin Station	27	18	34	37
------------------	----	----	----	----

Shoshone River Drainage

Sylvan Pass	30	8	29	30
-------------	----	---	----	----

022 - In approaches to the park

From January 11 to the end of the month the Livingston road was more or less covered with snow but was never closed to travel for any length of time, the Montana road equipment being placed in use every time the wind blew.

The Gardiner-Jardine road was closed for a few days at the time of high winds and snow on January 11 and 12 but the latter part of the month this road was being traveled daily.

Cars can be operated to 25 miles south of Hoxeum on the Gallatin-West Yellowstone highway. From this point, or Squaw Lake, snow depths range from 15 to 24 inches to the park line with many snow drifts of considerable size.

Forty to fifty inches of snow cover the Ashton-West Yellowstone highway with extremely bad drifts on Henry's Lake Flat, which is about 15 miles below West Yellowstone

The east approach road is closed to travel from the Sylvan Pass Ranger Station to the Napiti Ranger Station, a distance of 16 miles.



Category	Value
Red Bar	100
Blue Bar	50
White Bar	25

The first bar represents the highest value, followed by the second bar, and the third bar represents the lowest value.

Category	Value
Red Bar	100
Blue Bar	50
White Bar	25

The second bar represents the middle value, and the third bar represents the lowest value.

Section 3: Summary

This section summarizes the data presented in the previous sections. The total value of the three bars is 175.

The distribution of the data is as follows: Red (100), Blue (50), and White (25).

The following table provides a detailed breakdown of the data points.

The data is presented in a clear and concise manner, allowing for easy comparison and analysis.

The total value of the data is 175, which is the sum of the three bars.

The remainder of the road into Cody is in fair condition for travel.

All of the approach roads south of the park are covered with heavy depths of snow and many drifts.

023 - In nearby states

Weather and snow conditions in nearby states compare very much in proportion to Yellowstone National Park with severe snow storms, cold weather, and high winds prevailing during the month.

100 - Administration

110 - Status of Work

With the return of all employees from leave efforts were concentrated on the preparation of the 1934 preliminary estimates and these went forward about the middle of the month. All other work was kept as current as possible but there was an unusual volume of mail received which required action and little extra time was found to put on work which is usually done during the winter months.

Superintendent Toll was in Denver, where he makes his winter headquarters and where he is engaged on work in connection with proposed parks and monuments.

Assistant Superintendent Edwards returned to the park from leave on January 3 and Assistant to the Superintendent Joffe returned on the 8th.

120 - Park Inspections By

121 - Acting Superintendent

Following Assistant Superintendent Edwards' return from leave he departed on January 4 with Chief Ranger Bagglely to confer with Park County Commissioners in Livingston on tax matters affecting property purchased north of the park. They also attended the Rotary meeting. Other trips were made to Livingston on January 11, 13 and 23 to confer on land purchase matters, George Washington two hundredth anniversary celebration and American Legion party matters. The usual inspections were made around headquarters and several trips were made to the Game Preservation Ranch to look over the elk and antelope situation.

130 - Finance and accounts

	<u>Appropriated</u>	<u>Expended</u> <u>To Date</u>	<u>Balance</u>
41/2433 Yellowstone National Park, 1931-32	\$ 490,660.00	\$360,628.00	\$130,032.00
Encumbered		73,431.76	
Balance	490,660.00	434,059.76	56,600.24
40/1433 Yellowstone National Park 1931-32	497,715.00	495,237.25	2,477.75
Encumbered		429.33	
Balance	497,715.00	495,666.53	2,048.37
49/0433 Yellowstone National Park 1929-30	448,700.00	447,353.37	1,346.61
Encumbered		32.27	
Balance	448,700.00	447,385.64	1,314.34
4 x 436 Roads and Trails, National Parks	3,338,218.12	2,067,602.83	1,264,615.29
Encumbered		- - -	
	3,338,218.12	2,067,602.83	1,264,615.29
4 3 470 National Park Service Donations	101,461.63	101,250.98	210.65
Encumbered	- - -	- - -	- - -
	101,461.63	101,250.98	210.65
4 x 409 Extension of Winter Feed Facilities of Yellow- stone Game	8,475.00	8,475.00	- - -
Encumbered			
Balance	8,475.00	8,475.00	- - -
4 3 4 10 Extension of Winter Feed Facilities of Yellowstone Game, Donations	2,300.00	2,300.00	- - -
Encumbered	- - -	- - -	- - -
Balance	2,300.00	2,300.00	- - -
41/2406 Forest Protection and Fire Prevention	16,300.00	14,225.25	2,074.75
Encumbered		22.44	
	16,300.00	14,247.69	2,054.31

Statement of Assets and Liabilities

Assets	1917	1918	1919	Liabilities
Real Estate	10,000,000	10,000,000	10,000,000	Real Estate
Stocks	5,000,000	5,000,000	5,000,000	Stocks
Bonds	5,000,000	5,000,000	5,000,000	Bonds
Other Assets	5,000,000	5,000,000	5,000,000	Other Assets
Total Assets	25,000,000	25,000,000	25,000,000	Total Liabilities
				Real Estate
				Stocks
				Bonds
				Other Assets

140 - Labor Situation

Our forces were all working with the minimum number of men and it was not necessary to hire any men during the month, except for hauling coal. We are receiving more applications for positions than in any former year and it appears that in the spring the park will be flooded with men seeking employment.

150 - Equipment and Supplies

The Storehouse received and distributed 4 car-loads of Egg Coal to the Quarters, Shops, and Office Building; 1 car-load of Hard Grate Coal to Mammoth Mess; and one car-load of Screenings Coal to the Jail Building. A 1099 lb. shipment of brooms and brushes was received from the U. S. Penitentiary Annex, Fort Leavenworth, Kansas. Through the General Supply Committee's contract a 6656 lb. shipment of tires was received. This order consisted largely of solid non-skid tires for motor patrols. No equipment was received during the month.

Activities of the Storehouse for the past month have been largely confined to a Physical Inventory of Equipment. This inventory is well under way and will no doubt be completed during February.

170 - Plans, Maps and Surveys

Work under this item consisted of the inspection of approximately two miles of the proposed high line Gardiner-Mammoth road for the purpose of taking and recording snow gauge readings. This work, together with a study of the natural slide conditions, is being done to determine the relative merits of a high line location and the existing road through Gardiner River Canyon.

Five final construction reports were completed and forwarded through Field Headquarters, and three additional reports of the same nature were completed except for the insertion of cost data and photographs.

Maps and plans accumulating from different sources during the summer season were indexed and filed and a part of the plans from Field Headquarters were re-indexed to conform to the requirements of Office Order No. 232.

180 - Circulars, Placards, Publicity Bulletins, etc.

Circular No. 1, a copy of which is attached, was issued during the month but there was no issuance of Nature Notes. The policy has

1941 - 1942

The first year of the war was a period of intense activity for the... (faded text)

1943 - 1944

The second year of the war was a period of continued activity... (faded text)

The third year of the war was a period of continued activity... (faded text)

1945 - 1946

The fourth year of the war was a period of continued activity... (faded text)

The fifth year of the war was a period of continued activity... (faded text)

The sixth year of the war was a period of continued activity... (faded text)

1947 - 1948

The seventh year of the war was a period of continued activity... (faded text)

been adopted of issuing Nature Notes every two months during the winter due to the scarcity of mimeograph paper. No press releases were sent out.

200 - Maintenance, Improvements and New Construction

210 - Road Maintenance

Road maintenance for the month consisted of snow removal on Gardiner-Mammoth road and at headquarters. Snowfall was heavier than usual and this combined with high winds nearly closed our roads several times during the month. Drifts became too deep to be handled with the available equipment of tractor and grader and it was necessary to employ trucks and laborers to clear several sections by hand and dispose of the snow by hauling.

Sixty additional feet of snow-fence were installed at Mammoth and an equal length constructed on the Gardiner-Mammoth road near the top of "Scap Hill".

220 - Improvements

Carpenter Shop: Work of this department was again kept to a minimum for the month, the master carpenter doing all of the necessary building repairs, except for a few days' help by the Foreman White. Besides the necessary repairs, a new floor was partly laid in the Commissary to replace the old worn out floor.

Painting Department: The master painter has taken care of all the necessary painting repairs, etc. in his department without any extra help. Several sets of quarters have had minor painting jobs done in them.

Sanitation Department: There is nothing special to report in this department for the month of January. The operation and maintenance of the water, sewer and heating systems was carried out as usual. The new oil burner used to heat the mess house in the Ranger Barracks Building is working in excellent shape. As a result the entire mess quarters are very comfortable with an even heat.

Considerable trouble was caused this month again by the extreme water shortage which made it necessary to shut down the hydroelectric plant on several occasions in order to allow the reservoir to fill up. We have tried to make these shut downs during the early morning hours so as to cause as little inconvenience as possible.

... ..
... ..
... ..

... ..

... ..

... ..
... ..
... ..
... ..
... ..

... ..
... ..
... ..

... ..

... ..
... ..
... ..
... ..

... ..
... ..
... ..

... ..
... ..
... ..
... ..
... ..

... ..
... ..
... ..
... ..
... ..

Electrical Department: All telephone and electrical lines were kept in operation as usual, with a minimum of help, the Chief Electrician taking care of all maintenance work of this department. Two days were spent in clearing up trouble on the Gardner telephone line.

During the month the Chief Electrician completed the inventory of all of the electrical appliances in all of the government buildings at Mammoth. This inventory includes every kind of electrical appliance, both government and privately owned. This inventory is being used for making up a schedule showing electrical current consumed in each building.

Considerable difficulty was experienced at the hydro-electric plant due to a shortage of water. It has been necessary to shut the plant down on several different nights in order to allow the reservoir to fill up.

Garage: During the month the shop force was busy on equipment overhaul. During the month seventeen trucks were overhauled. The usual repair of small tools and minor equipment has also gone forward.

From October to January 1st there have been overhauled twenty-seven (27) trucks, two passenger cars, ten (10) motor patrols and one concrete mixer.

The new cost keeping system for the garage which was installed July 1st of last year has proven very efficient. We have, during this month, balanced the accounts for 215 and 216 from July 1st to January 1st, 1933. These accounts now show the exact cost for labor, material and overhaul on each piece of major equipment. We have made up a sub-account under 216 to cover the cost of small tools and minor equipment. Without adding any additional personnel to the shops, we have assigned one man, in the shops, to take over the duties of parts man and cost keeper. The balance of his time is spent on regular shop duty. Even with these added duties our garage work is current.

230 - New Construction

No construction projects were active during the month.

240 - Improvements to Approach Roads to Park

By reason of the fact that weather conditions made it impossible to perform effective work on the Red Lodge-Cooke City-Yellowstone National Park Approach Road, Section "A", the contractors,

Harrison-Knudsen Company, were instructed by the Bureau of Public Roads to shut down operations on January 13th. The contractors, McNutt and Pyle, on Section "B" had already shut down on November 17, 1931 due to weather conditions.

260 - Landscape Work

During the month we have received from the Landscape Division at Field Headquarters the preliminary sketches for the buildings to be built in 1933 f.y. and several of the preliminary sketches for buildings to accompany our final estimate and justification for f.y. 1934, all of which have been returned with our comments as requested.

300 - Activities of other agencies in the park

Mr. George Whittaker operated his store at Mammoth to take care of of the local residents but the service rendered was decidedly poor and most of the people are now purchasing in Gardiner and Livingston. Mr. Whittaker has failed to live up to his agreement of last April with regard to prices and stock and he has lost several hundred dollars business each month. Most of our people are now buying from him only in emergencies and are obtaining their supplies from the merchants in Gardiner and Livingston.

350 - Donations and accessions of all kinds

January 5 - one package specimens (probably 25, or more) of sinter from geysers in Iceland, received from the Meteorological Institute, Reykjavik, through the Icelandic Legation in Copenhagen. Gift.

January 6 - six park photographs, 6" x 8", from M. M. Goodwill, G. P. A. of the Northern Pacific Railway, St. Paul. Gift. To be placed in photograph album.

January 13 - Photograph and poem of Giant Geyser, by ranger naturalists, B. F. Harrison, George Marler, and Compton Crook (1931). Gift.

January 19 - Photograph of P. W. Norris, second superintendent, (1877-1882) of Yellowstone Park, purchased from C. Smith, Washington, D. C. through the Washington office.

January 27 - One exceptionally beautiful specimen of red fox and one small coyote, turned over from the Protective Division.

... ..
... ..
... ..

... ..

... ..
... ..
... ..

... ..

... ..
... ..
... ..
... ..
... ..
... ..
... ..
... ..
... ..
... ..

... ..

... ..
... ..
... ..
... ..
... ..
... ..
... ..
... ..

... ..
... ..

... ..
... ..
... ..

... ..
... ..

January 23 - Piece of hand wrought iron found on site of Fort Yellowstone, turned over by Norman W. Scherer.

Five photographs, 6" x 8" of white pelicans of Klamath Lake, Oregon, from E. J. Sawyer, sent by Director Albright. Gift.

400 - Flora, Fauna, and National Phenomena

410 - Ranger, naturalist and guide service

All activities of the Protection Department were carried on smoothly in spite of the heavy snowfall and cold weather of the past month. All of the government buildings, as well as several odd buildings, in the interior of the park have been cleared of snow. This is the first winter since the winter of 1926-27 that any great amount of snow shoveling has been done.

The game count for the month of January was held on the 21st and 22nd. This was an exceptionally good count and is shown elsewhere in this report. Much of the country covered in obtaining this game census was made on skis and snowshoes. The counts of game are tabulated according to district and herds. Assistant Chief Rangers Miller and Lanoue with Ranger Chapman were tagging elk at the Lower Slough Creek Ranch the latter part of the month. The trip to Slough Creek and return was made by skis as the weather had made the road almost impossible to travel with horses.

A fire conference, held in Mammoth on January 29, was attended by all department heads and several of the permanent rangers who could be conveniently brought in from the interior of the park. Discussions were made at this conference covering the various phases of fire control work. Many useful suggestions were made by those in attendance, the main one being a fire manual based somewhat on the Forest Service manual and to be complete in as far as fire control in Yellowstone is concerned. The meeting was presided over by Acting Superintendent Edwards.

Acting Superintendent Edwards and Chief Ranger Baggley were in Livingston on January 4 attending a meeting of the County Commissioners of Park County to discuss the problem of taxing the lands in the northern elk range acquired by the government. Again on January 11, Mr. Edwards and Mr. Baggley were in Livingston on business pertaining to further land matters in the northern elk range and they returned to headquarters on January 12th.

420 - Museum Service

The following report is submitted by the Acting Park Naturalist for the month of January:

THE STATE OF TEXAS, COUNTY OF DALLAS, ss. I, the undersigned, a Notary Public in and for the State of Texas, do hereby certify that the within and foregoing is a true and correct copy of the original of the same as the same appears from the records of the County of Dallas, State of Texas, in and to the effect and tenor hereunto set forth.

WITNESSETH my hand and the seal of my office, this _____ day of _____, 19____.

Notary Public in and for the State of Texas.

My commission expires on _____, 19____.

IN WITNESS WHEREOF, I have hereunto set my hand and the seal of my office, at the City of Dallas, State of Texas, this _____ day of _____, 19____.

Notary Public in and for the State of Texas.

My commission expires on _____, 19____.

Notary Public in and for the State of Texas.

My commission expires on _____, 19____.

Notary Public in and for the State of Texas.

I.- Current Operations

B. Ranger Naturalist Staff

A questionnaire was sent out to ranger naturalists serving during the 1931 season. At this time fourteen of the men have signified their intention to return, if re-appointed. Inquiries have been received from twenty-nine persons interested in ranger naturalist positions, and application blanks have been forwarded to them. Replies were received from these inquiries in the total of eight.

II.- Permanent Projects

A. Administrative

Considerable time was spent on filing publications and on mimeograph work.

B. Nature Notes

Not issued during the month.

C. Library

Books and pamphlets received, 61; in circulation, 8. A generous shipment of books, mostly geological and ethnological, were received from Dr. Russell, Educational Headquarters.

Books accessioned, 173; catalogued and carded, 61; current magazines received, 9.

Part of the books on the shelves were rearranged according to subject.

E. Museum Work

Processing of buffalo skeleton completed, except for bleaching.

Label copy written for flowers, shrubs, cones and trees; to be used at Fishing Bridge Museum.

Label copy written and typed for Fishing Bridge Museum cases, as follows:

B-1, Plant Diseases	)	Available material for
B-2, Insects)	
A-2, Plant Kingdom	)	these cases assembled.

Museum property inventoried.

Photographs of Wood Ibis and Sheepeater Teepees made for Fishing Bridge Museum.

1-10-1944

Dear Sir,

I have the pleasure to inform you that the order for the purchase of the following quantities of material has been placed with the firm named below. The first delivery is to be made on the date specified and the balance to be delivered in accordance with the programme of deliveries attached hereto. It is requested that you will ensure that the material is available at the time and place specified and that you will advise me of any delay or difficulty in the fulfilment of the order.

Yours faithfully,

A. J. [Name]

Contract No. [Number] dated [Date] at [Place]

2- [Text]

3- [Text]

4- [Text]

5- [Text]

6- [Text]

7- [Text]

8- [Text]

9- [Text]

10- [Text]

11- [Text]

F. Lantern Slides

The lantern slides were checked and report made to Dr. Bumpus on lost, cracked and broken, as well as new, slides. Those needing repairs were laid aside, and materials ordered to do this work.

G. Equipment

None received

H. Photographs

Negatives in circulation, 466.

Received, matched to negatives and sorted, 150 new negatives and prints. These will need to be labeled (after label typed) and pasted.

About 25 prints were made for the Engineering Department

I. Publicity Clippings

No work was done during the month on this project.

J. Sales Publications

None, but orders prepared for 1932 season.

K. Personnel

Assistant Park Naturalist Norman W. Scherer, Junior Park Naturalist, Norma A. Bagley, and Museum Caretaker, Wilfred Mead were on duty the entire month.

460 - Birds

January showed a marked decrease in the bird life of Yellowstone Park. Even at that, the usual numbers of ducks and geese were prevalent on all of the open waters throughout the park, with the golden-eyed ducks predominating. The various counts of these waterfowl are as follows:

Bechler River	6 Geese	48 Unidentified Ducks
Madison-Firehole Rivers	149 Geese	427 " "

Other small numbers of waterfowl were reported from many other localities in the park. The usual numbers of Magpies, Rocky Mountain Jay, Clark's Crow, Raven, Chickadee, and Water-Ouzel were prevalent.

470 - Animals

All game animals, at the present time, are in excellent condition with forage conditions poor due to the heavy depth of the snow covering.

Section 1

The first thing I noticed when I stepped out of the plane was the fresh air. It felt like I had been in a cocoon for weeks. The sun was shining brightly, and the birds were chirping. I took a deep breath and smiled. This was my chance to start over.

Section 2

Section 3

Section 4

I had been told that the weather was perfect. Not too hot, not too cold. Just what I needed. I had heard that the people were friendly and the food was delicious. I had heard that it was a great place to live. I had heard that it was a great place to start over.

I had heard that it was a great place to start over.

Section 5

I had heard that it was a great place to start over.

Section 6

I had heard that it was a great place to start over.

Section 7

I had heard that it was a great place to start over.

Section 8

I had heard that it was a great place to start over.

I had heard that it was a great place to start over.

I had heard that it was a great place to start over.

Section 9

I had heard that it was a great place to start over.

The past few winters of light snowfall fail to disclose any large numbers of winter kills but with the heavy snowfall of this winter there is no doubt but what a large winter kill will be reported.

Elk: An exceptionally good count of these animals was made on January 21st and 22nd, being a higher count than any count taken during the winter of 1930-31. This was due to the heavy snow causing the elk to drift into the winter elk range where they were to be found in large numbers and herds.

Hay was placed in the trapping corrals at Mammoth on January 16 and shipments of live elk were made on January 20. Five elk were shipped to the following parties: General Harry C. Trexler, Allentown, Pennsylvania, 2 bulls; Mr. Jas. M. Garber, Detroit, Michigan, 1 pair; and J. H. Vogel, Cody, Wyoming, 1 bull.

On January 13th and 19th 40 elk were trapped in the Mammoth corrals. These elk were all tagged and blood samples taken by Wm. Rush. At Lower Slough Creek, from January 23rd to 26th, incl., 84 elk were tagged, consisting of 29 cows, 14 female calves, 9 male calves, 5 spikes and 27 large bulls. All of the above animals were tagged with the regulation Biological Survey tags and records covering the tagging of these elk were forwarded to that bureau.

Losses of elk to date consist of three, cause and location being as follows:

- 1 - Winter Kill at Gardiner
- 1 - Winter Kill on Tower Falls Road
- 1 - Injured elk killed by Forest Service Ranger at Gardiner, on the Yellowstone River.

ELK CENSUS - JANUARY

Northern Herd

<u>Location</u>						<u>Cows &</u>		<u>Total</u>
	<u>:Bulls:</u>	<u>Cows:</u>	<u>Calves:</u>	<u>Spikes:</u>	<u>Calves:</u>	<u>Unclass.:</u>		
Mammoth to Ice Lake (old Road)	: 15 :	:	:	:	: 104 :	:	: 119 ✓	
Vicinity of Mammoth	:	:	:	:	:	: 103 :	: 103	
Reese Creek	:	:	:	:	:	: 92 :	: 92 ✓	
Game Preservation Ranch	:	:	:	:	:	: 652 :	: 652 ✓	
Game Preserv. Ranch to Park Line	:	:	:	:	:	: 218 :	: 218	
Trail Creek to Sniden Basin	:	:	:	:	:	: 538 :	: 538 ✓	
Bear Creek to Eagle Creek	:	:	:	:	:	: 720 :	: 720 ✓	
Gardiner to Sepulcher Mt.	:	:	:	:	:	: 457 :	: 457 ✓	
Cedar Creek	:	:	:	:	:	: 75 :	: 75	
Mt. Everts	:	:	:	:	:	: 174 :	: 174 ✓	

ELK CENSUS - JANUARY (Cont'd.)

Interior Park Herd (cont'd.)

<u>Location</u>	<u>Cows &</u>						<u>Total</u>
	<u>Bulls</u>	<u>Cows</u>	<u>Calves</u>	<u>Spikes</u>	<u>Calves</u>	<u>Unclass.</u>	
Lake (Pelican Meadows)	1						1
Thorofare	6						6
Thorofare to Cabin Creek						15	15
Cabin Creek to Park Point						5	5
Trident						15	15
Chipmunk Creek						2	2
Madison River	1	25	27	1			54
Old Faithful	10	25	15	9			59
Excelsior Geyser to Fountain Cabin		40	27	1		11	79
Back Creek to Cougar Creek	3	11	4				18
Golden Gate to Norris	6					39	45
Snow Pass to Fawn Pass						57	57
Sylvan Pass						3	3
Sylvan Pass to Helm Lodge	5	70	33			92	200
Norris to Madison Junction							
Snake River	1	9	4				14
Total Interior Park Herd	53	212	144	24		239	672
GRAND TOTAL ALL ELK	590	3245	714	193	1142	5239	11,143

Deer: These animals are all noted to be in excellent condition with forage conditions poor. A count of deer, as secured at the same time as the elk count, discloses a total of 751 as compared with a count of 402 during January last year and again compared with 706, the count obtained in February last year which was the largest count secured during the winter of 1930-31. This deer count does not include a total of 147 in the territory adjacent to the Gallatin district. The following table discloses the localities and numbers of deer counted:

DEER CENSUS - JANUARY
Yellowstone Herd

<u>Location</u>	<u>Bucks</u>	<u>Does</u>	<u>Fawns</u>	<u>Unclass.</u>	<u>Total</u>
Vicinity Blanding Ranch				17	17
Reese Creek				32	32
Game Preservation Ranch				180	180
Hill Ranch and Vicinity				32	32
Vicinity Gardiner				51	51
Mammoth, along old road	3			52	55

DEER CENSUS - JANUARY (Cont'd.)
Yellowstone Herd (cont'd.)

<u>Location</u>	<u>: Bucks :</u>	<u>: Does :</u>	<u>: Fawns :</u>	<u>: Unclass. :</u>	<u>: Total :</u>
Mammoth	:	:	:	34	34
Mt. Sverts	:	:	:	6	6
Coal Mine to Blacktail	:	:	:	49	49
Hellroaring	: 5 :	:	:	16	19
Hellroaring to Cottonwood Basin	: 4 :	:	:	48	52
Cottonwood to Blacktail	: 2 :	:	:	11	13
Tower Falls (Jet. Butte to Crescent Hill)	: 4 :	:	:	27	31
Hellroaring to Slough Creek	: 3 :	:	:	26	29
Madison Junction	:	:	:	7	7
Old Faithful	:	:	:	64	64
Total Yellowstone Herd	: 19 :	:	:	722	751
Callatin Herd	:	:	:	:	:
Callatin Herd	: 8 :	29	27	84	147
GRAND TOTAL ALL DEER	: 27 :	38	27	816	898

Thirty-four deer are being fed hay and cotton seed cake daily at Mammoth and eleven deer are being fed the same ration daily at Tower Falls Hanger Station. Two deer kills have been reported for the month--one at Hellroaring and one at Mammoth.

Antelope: The antelope are fairly well scattered over the entire north section of the winter antelope range and no accurate check of their number could be made; however, the count secured during the month is as follows:

Armstrong Ranch to Hill Ranch	135
Hill Ranch to Gardiner	90
Along north boundary line	18
	<u>243</u>

All these animals counted were noted to be in excellent condition with forage conditions as fair. Many of these animals are being fed daily at the Game Preservation Ranch, 132 antelope being fed on the feed grounds at this ranch on January 28. Losses for the month consist of four kills by coyotes along the north line and one injured animal which was shot by the Game Warden.

YELLOWSTONE

NOV 1917

1-7-17

Moose: Consisting mostly of cows and calves a total of 64 moose were counted in the Thorefare district inside the park boundary line. A very large number of moose are known to be in this region outside of the park but no actual counts are available. Many of the large bulls which were counted during December have, after the heavy snow storms, scattered over that entire section, singly and in pairs and may be noted almost anywhere in timbered areas. There are 20 moose between Sylvan Pass and Holsa Lodge. An actual count of moose in the Bechler River country has not been made but it is estimated that there are 21 of these animals in that section of the park. Five moose, consisting of 3 cows, 1 calf and 1 bull were counted in the Gallatin district. As usual, these animals were noted to be in excellent condition with forage conditions fair.

Sheep: There are 21 mountain sheep in the Junction Butte band in the vicinity of Tower Falls. This band consists of 3 rams, 13 ewes, and 5 lambs. The usual numbers are still present in the Gardiner Canyon. During the elk count in the Gallatin country there was noted to be 28 mountain sheep, which included 10 rams, wintering in the mouth of West Fork and Deer Creek along the Gallatin River. One of the ewes at Tower Falls was noted to be infected with scabies. The balance of the sheep were noted to be in fair condition.

Buffalo: On January 6 the buffalo round-up started for the purpose of corralling the herd so as to segregate the calves for weaning. This round-up was completed on January 7. On January 8 the calves were cut out and all of the older animals turned loose on the range. January 9 and 10 was spent in running the calves through the chute and 117 of the bulks were castrated.

A complete report covering the buffalo round-up, slaughter, and disposal has been prepared and mailed to the Director. The following disclosed the buffalo census as of January 12, 1932:

BUFFALO CENSUS

<u>Counted in Corrals</u>	<u>Cows</u>	<u>Bulls</u>	<u>Steers</u>	<u>Total</u>	<u>Percentage</u>
Calf crop, 1931	102	20	117	239	23%
Older Animals	279	128	75	482	47
<u>Estimated on Range</u>					
Calf crop, 1931	10	10		20	2
Older animals	190	65	25	280	28
Totals	581	223	217	1021	100%
Losses	1	2			
Grand Total	580	221	217	1018	
Percentage	57%	22%	21%	100%	100%

The first part of the report deals with the general situation of the country and the progress of the work done during the year. It is followed by a detailed account of the various projects and the results achieved. The report concludes with a summary of the work done and the prospects for the future.

The second part of the report deals with the financial statement of the organization. It shows the income and expenditure for the year and the balance sheet at the end of the year. The financial statement is followed by a statement of the assets and liabilities of the organization.

The third part of the report deals with the administrative matters of the organization. It includes a list of the members of the organization and a list of the committees and sub-committees. It also includes a list of the officers and staff of the organization.

The fourth part of the report deals with the general remarks of the organization. It includes a list of the resolutions passed by the organization and a list of the recommendations made by the organization.

Statement of Income and Expenditure					Balance Sheet	
Particulars	1950	1951	1952	1953	Assets	Liabilities
Income	100	120	150	180	100	100
Expenditure	80	90	110	130		
Surplus	20	30	40	50		
Balance at the beginning of the year	0	20	50	90	90	90
Balance at the end of the year	20	50	90	140	140	140

BUFFALO DISPOSAL

	<u>Cows</u>	<u>Bulls</u>	<u>Steers</u>	<u>Total</u>
Live Shipments	14	7	1	22
Slaughter	181	14	5	200
Condensed	1			1
Specimen	1	1		2
Grand Totals	<u>197</u>	<u>22</u>	<u>6</u>	<u>225</u>

The following table discloses the sexes of the calf crops of the past four years:

<u>Sex</u>	<u>1928</u>	<u>1929</u>	<u>1930</u>	<u>1931</u>
Males	53	63	43	20
Females	75	102	94	102
Steers	7	19	53	117
Totals	<u>135</u>	<u>184</u>	<u>190</u>	<u>239</u>

Small Animals: The usual numbers of squirrels, snowshoe and jack rabbits, marten, mink and beaver are being reported from all localities in the interior of the park.

Buffalo and Other Ranch Activities: The activities at the Buffalo Ranch, Upper and Lower Slough Creek Ranches, ^{and} Game Preservation consisted mainly of the feeding of the buffalo, elk, deer and antelope. Approximately 900 elk are being fed daily at the Slough Creek Ranches. 48 tons of hay were fed to the deer, antelope and elk on the Game Preservation Ranch; 21,400 lbs. cottonseed cake were fed to 830 buffalo, including 239 calves, during the month of January--this was in addition to 60,600 lbs. of hay.

480 - Natural phenomena

An extended trip over the hot spring formations at Mammoth revealed the following conditions:

Hymen Terrace - about the same as in December; activity on the north-east face.

Diana - about the same as in December; run-off stream still occupies formation trail.

Minarva Terrace - no activity; pool at top of terrace completely dried.

UNITED STATES

$\frac{1}{2}$ $\frac{1}{3}$ $\frac{1}{4}$ $\frac{1}{5}$ $\frac{1}{6}$ $\frac{1}{7}$ $\frac{1}{8}$ $\frac{1}{9}$ $\frac{1}{10}$

THESE ARE THE FIRST TEN FRACTIONS OF THE UNIT ONE. THEY ARE CALLED THE UNIT FRACTIONS.

$\frac{1}{2} + \frac{1}{3} = \frac{3}{6} + \frac{2}{6} = \frac{5}{6}$ $\frac{1}{3} + \frac{1}{4} = \frac{4}{12} + \frac{3}{12} = \frac{7}{12}$

THESE ARE THE FIRST TEN FRACTIONS OF THE UNIT ONE. THEY ARE CALLED THE UNIT FRACTIONS.

THESE ARE THE FIRST TEN FRACTIONS OF THE UNIT ONE. THEY ARE CALLED THE UNIT FRACTIONS.

UNIT FRACTIONS - 98

THESE ARE THE FIRST TEN FRACTIONS OF THE UNIT ONE. THEY ARE CALLED THE UNIT FRACTIONS.

THESE ARE THE FIRST TEN FRACTIONS OF THE UNIT ONE. THEY ARE CALLED THE UNIT FRACTIONS.

THESE ARE THE FIRST TEN FRACTIONS OF THE UNIT ONE. THEY ARE CALLED THE UNIT FRACTIONS.

THESE ARE THE FIRST TEN FRACTIONS OF THE UNIT ONE. THEY ARE CALLED THE UNIT FRACTIONS.

Mound Terrace - very little flow over the northeast face, but very active on the southwest slope; the run-off being a stream of considerable size.

Blue Springs - basins filled with very little run-off. A new spring has broken out at the north end, not large in volume but spurts to a height of about six inches..

Jupiter Terrace - activity in only two places; one on the extreme north and the other at the south end. The latter flows over the face of the terrace at two points, mainly the south and middle of the east face. Considerable areas of green and black algae exist, showing the effect of cooling. (The past month has been the coldest of the winter).

Angel Terrace - more active than ever before since the new activity on the upper part of the terrace last spring. A large volume of water is flowing over the mound to the northeast and south sides. The crack, which developed in the middle of the Nature Trail in November, now appears to be five or six feet long and water gushes forth its entire length to a height of about six feet. The yellow and orange colors on the upper part of the terrace are gorgeous.

New Highland Terrace - practically no change has been noted here for several months, but this time more steam activity was evident than previously. Of course, this may be caused entirely by the cold weather.

Orange Spring Mound - the greatest change of the month has taken place on Orange Spring Mound. The overflow to the southwest side is only a very small stream. The colors reported last month, principally yellows, have disappeared and the darker colors predominate.

White Elephant - about the same; very little activity.

Soda Spring - some boiling action, but little run-off.

Stygian Caves - truly a remarkable sight. The seepage from the mountain has frozen into long icicles, giving somewhat the appearance of stalactites three to ten or fifteen feet in length and beautifully colored with tints varying from white to light blue and amethyst.

Cleopatra - about the same as in December.

The little lake which resulted from the new crack discovered last summer at the foot of Cupid's Cave has entirely dried.

The activity on the old terrace back of the Nichol's tennis court is gradually increasing in area covered and amount of water discharged.

Most notable changes have taken place during the past month in the increased flow on the southwest side of Mound Terrace, the increased activity on Angel Terrace and the decreased activity of Orange Spring Mound.

...the ... of ...

...the ... of ...

...the ... of ...

...the ... of ...

...the ... of ...

...the ... of ...

...the ... of ...

...the ... of ...

...the ... of ...

...the ... of ...

...the ... of ...

...the ... of ...

...the ... of ...

Old Faithful Geyser Basin

Ranger Skinner at Old Faithful reports the following:

"Handkerchief Pool which was entirely dry during the summer of 1931 began to fill early in January, on or about the 15th was overflowing with silicate rapidly forming over the floor of the pool. The mouth is being cleared of algae, gradually, and there is some evidence of weak convection currents.

Old Faithful played at intervals of 60 - 67 minutes during the month at normal heights."

440 - Insect Control

During the month of January the first annual Forestry report for Yellowstone National Park was completed. This report contains details of all forest insect, fire protection, timber operation, reforestation and forestry project activities in Yellowstone National Park during 1931.

Type map tracings, visibility maps, compilation of timber estimate data and other office work pertaining to forestry have required practically the entire time of the Forest Assistant and one ranger during the month of January.

500 - Use of Park Facilities by the Public

510 - Increase or decrease in travel

All travel for the month was through the north entrance. This approach road was passable at all times but on account of weather conditions travel was very light. Total travel consisted of 155 visitors, traveling in 62 automobiles.

520 - Conditions which favorably or unfavorably affect travel and general forest, plant, wild life and other conditions in park

Adverse weather conditions during the entire month were not very favorable for a follow-up of the heavy travel which occurred through the north entrance in the month of December. Large numbers of various game animals may be seen in the vicinity of Gardiner and Mammoth which

THE UNITED STATES OF AMERICA

IN SENATE, January 15, 1914.
REPORT
OF THE
COMMISSIONER OF THE GENERAL LAND OFFICE
ON THE
LANDS BELONGING TO THE UNITED STATES
IN THE TERRITORY OF ALASKA
AND
THE PUBLIC LANDS IN THE TERRITORY OF ALASKA
AND THE PUBLIC LANDS IN THE TERRITORY OF ALASKA

ALASKA - 1914

The following is a list of the lands in Alaska which are owned by the United States Government. The lands are classified according to their use and are listed in alphabetical order of the name of the land.

ALASKA - 1914

ALASKA - 1914

The following is a list of the lands in Alaska which are owned by the United States Government. The lands are classified according to their use and are listed in alphabetical order of the name of the land.

ALASKA - 1914

The following is a list of the lands in Alaska which are owned by the United States Government. The lands are classified according to their use and are listed in alphabetical order of the name of the land.

would have a tendency, in normal months to bring a large number of pre-season visitors to Mammoth Hot Springs; however, due to very unfavorable weather conditions in Montana, as well as in the park, the tendency was for the residents in nearby cities to remain at home.

530 - Visitors

L. E. Orr, Denver, Colorado, Fox Movietone photographer, arrived Gardiner, January 3, accompanied by James Porter, sound technician. Taking sound pictures of wild animals and other part features for Fox Movietone.

600 - Protection

630 - Accidents

During the evening of January 19 Mr. J. O'Loughlin, government night-watchman at Mammoth, slipped on some ice while walking up the steps at the rear of the Administration Building. In falling Mr. O'Loughlin broke a few ribs. He was taken the same evening to Livingston to the Park Hospital.

Park Ranger Harry Trischman while entering his residence the evening of January 31 slipped on some ice, which was on the steps, causing him to fall and break two ribs. Mr. Trischman is at home and is being attended by the resident physician.

640 - Destruction of Predatory Animals

Twenty-five coyotes were killed this month as compared with twenty-four for the same month last year. This makes a total of 105 coyotes killed to date as compared with 76 for the same period last year and is the same number that was killed during the same period in 1930.

900 - Miscellaneous

Medical Service: Dr. Ivan T. Budaeff, Resident Physician, reports 80 office visits and 70 home visits during the month of January.

Post Office: Winter conditions prevailed and there was nothing unusual to report.

Church Services: Religious services were held in the park twice during January, namely morning of Sunday, the 10th, by Rev. L. D. Smith, and evening of Monday the 25th, by Rev. Webster H. Clement. Both of these services were held in the lodge room, as the number attending did not warrant heating the chapel.

Chief Clerk Hundley had a minor operation performed which later developed a hemorrhage necessitating his removal to the hospital in Livingston for several days. He returned to work on the 24th, apparently entirely recovered.

- - - - -

A conference of officials and heads of departments was held in Acting Superintendent Edwards' office on January 15 to discuss matters of mutual interest. Similar conferences are held once or twice each month and accomplish very satisfactory results.

- - - - -

The heavy snowfall has made skiing, snowshoeing and coasting ideal and many of the residents are taking advantage of the fine weather for these winter sports. There was a splendid turn-out on Sunday, January 17, to pose for sound pictures on the terraces for Messrs. Orr and Porter.

- - - - -

A meeting of the Big Horn Basin Association was held in Cody, Wyoming on January 18, 1932, and the question of keeping the road open from Cody to Ashton, Idaho, through the park, during the winter was brought up for discussion. Considerable data was presented to show the value of winter travel over the southern coast-to-coast route and the costs of keeping roads open in other parts of the country during the winter months where snow conditions are considerably worse than in the Yellowstone. A motion was passed that the association go on record as favoring an all-year road through the Yellowstone and a committee was appointed to promote the project. Park Ranger E. E. Ogston, who is stationed at the Sylvan Pass Ranger Station, attended the meeting but made no statements as to the park's attitude on such a proposal.

- - - - -

Very truly yours,


Gay D. Edwards,
Acting Superintendent.



On January 17th many Mammoth residents turned out on snowshoes and skis to pose for motion pictures to be taken by L. E. Orr and J. Porter of the Fox Moviestone Company. Top picture shows group of skiers and snowshoers near Cleopatra Terrace making ready for a slide down the hill. Bottom view shows group around Angel Terrace where boiled eggs and hot tea were served (so the pictures will say). Sound pictures were taken at Angel Terrace and will be soon released in theaters throughout the country.



U. S. DEPARTMENT OF AGRICULTURE, WEATHER BUREAU.

MONTHLY METEOROLOGICAL SUMMARY.

Yellowstone Park, Wyo.; month, January, 1932.

Table with columns for Temperature (Max, Min, Mean), Precipitation, Character of day, Per cent of Possible Sunshine, and Atmospheric Pressure. Includes monthly and daily data for 1932, and a comparison with the normal for the month.

NOTE.—"T" indicates trace of precipitation.

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

Lowest observed relative humidity, 45%, at noon on 29th.

W. T. LATHROP, Weather Bureau.

DEPARTMENT OF AGRICULTURE.

WEATHER BUREAU.

MONTHLY

METEOROLOGICAL SUMMARY.

STATION

MONTH

, 19

UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

TRAVEL REPORT

Yellowstone

National Park for the month of

January, 1928

	This Month	This Travel Year To Date	This Month Last Year	Last Travel Year To Date	Increase for Travel Year	
					Number	Percent
<u>PRIVATE TRANSPORTATION:</u>						
Cars first entry,	62	²³⁶⁰ 2230	70	1480	880	59
Cars reentry,		122		104	78	75
Motorcycles,				1	- 1	- 100
Total motor vehicles,	62	2542	70	1585	957	60
Persons entering via motor vehicles,	155	7220	145	4947	2375	49
Persons entering via other private transportation,						
Total persons entering via private transportation,	155	7220	145	4947	2375	49
<u>OTHER TRANSPORTATION:</u>						
Persons entering via stages,						
Persons entering via trains,						
Persons entering otherwise,						
Total other transportation,						
GRAND TOTAL ALL VISITORS,	155	7220	145	4947	2375	49

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

TRAVEL REPORT

National Park for the month of January 1934

Month	Year	Total	Travel	Year	Month	Year	Travel	Year
Jan	1934	100	100	100	Jan	1933	100	100

PRIVATE TRANSPORTATION:

Mode	Year	Total	Travel	Year	Mode	Year	Total	Travel
Auto	1934	100	100	1933	Auto	1933	100	100
Motor	1934	100	100	1933	Motor	1933	100	100
Other	1934	100	100	1933	Other	1933	100	100

THE TRANSPORTATION

Mode	Year	Total	Travel	Year	Mode	Year	Total	Travel
Auto	1934	100	100	1933	Auto	1933	100	100
Motor	1934	100	100	1933	Motor	1933	100	100
Other	1934	100	100	1933	Other	1933	100	100

Total
 Year
 Total
 Year

DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

STATUS OF AUTHORIZED PROJECTS

YELLOWSTONE

National Park for the Month of JANUARY, 1932.

Description of Projects	Percent Constructed To Date	Percent Constructed This Month	Percent Constructed Last Month	Probable Date Completion
502 - Mammoth-Morris Road	100	0		
525.1- Madison-Old Faithful	100	0		
525.4- Signs	99	0	4	
525.5- Post Const. Maint.	50	0		
525.6- Bear Feeding Grounds*	100	0		
525.7- Lewis River Bridge	100	0		
526 - Old Faithful Trails	90	0	15	
528 - " " Parking	100	0		
529.1- Artist Point Cleanup	100	0		
529.2- Artist Point Oiling	100	0		
530.1- Morris-Madison Oil	100	0		
530.2- Morris-Madison Cleanup	100	0		
530.3- Morris-Madison Bridge	100	0		
532 - E. Ent.-Lake Butte Cleanup	100	0		
535 - Canyon-Tower Jct. Cleanup	100	0		
486 - Mammoth Water System	100	0		
492 - Mammoth Sewer System	100	0		
525.8- Loop Betterment	100	0		
525.9- " "	100	0		
543.1- Cleanup (Firehole Cascades- Obsidian)	40	0		
543.1- Cleanup (Inspiration Point)	35	0		
543.2- Cleanup (E. Ent.-Lake Butte)	35	0		
544 - Heal coat oiling and staining guard rail	85	0		

* \$2,000 additional work programmed, June 20, 1931.

10-159
May, 1931)

UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

STATUS OF PERSONNEL

Yellowstone National Park for the Month of January, 1932

	This Month		This Month Last Year	
	Appointed	Non-Appointed	Appointed	Non-Appointed
Number of employees beginning of month	74	9	70	7
Number of additions	0	4	0	12
Total	74	13	70	19
Number of separations	0	4	1	11
Number of employees close of month	74	9	69	8
Number of promotions during month	0		8	
Aggregate amount of annual leave taken	51½		64	
Aggregate amount of sick leave taken	3		4	
Aggregate amount of leave without pay	0		13	

DEPARTMENT OF THE INTERIOR

NATIONAL PARK SERVICE

STATUS OF PERSONNEL

National Park for the Month of _____

This Month		This Month Last Year	
Present	Former	Present	Former
1	2	3	4
5	6	7	8
9	10	11	12
13	14	15	16
17	18	19	20
21	22	23	24
25	26	27	28
29	30	31	32
33	34	35	36
37	38	39	40
41	42	43	44
45	46	47	48
49	50	51	52
53	54	55	56
57	58	59	60
61	62	63	64
65	66	67	68
69	70	71	72
73	74	75	76
77	78	79	80
81	82	83	84
85	86	87	88
89	90	91	92
93	94	95	96
97	98	99	100

DEPARTMENT OF THE INTERIOR

NATIONAL PARK SERVICE

REPORT OF PARK REVENUES

Yellowstone National Park for the Month of January, 1932

	This Year	Last Year
Park revenue on hand beginning of month,	\$ 3.40	\$ 739.94
Received,	61,176.05	74,758.10
Total,	\$ 61,179.45	\$ 75,498.04
Remitted,	61,157.85	75,495.54
On hand close of month,	\$ 21.60	\$ 2.50

Park revenues received this year to date, \$217,816.40

Park revenues received last year to date, 245,985.12

~~In~~^{De}crease, 28,168.72

Per cent of ~~in~~^{de}crease,1145

DEPARTMENT OF THE INTERIOR

NATIONAL PARK SERVICE

REPORT OF PARK REVENUES

National Park for the Month of January, 1932

Alcatraz

Year	Month	Revenue	Expenses	Balance
1931	Jan	1,100.00	200.00	900.00
1932	Jan	1,200.00	250.00	950.00
Total		2,300.00	450.00	1,850.00

Year	Revenue	Expenses	Balance	
1931	12,000.00	2,000.00	10,000.00	
1932	13,000.00	2,500.00	10,500.00	
Total		25,000.00	4,500.00	20,500.00

DEPARTMENT OF THE INTERIOR

NATIONAL PARK SERVICE

REPORT OF TELEPHONE AND TELEGRAPH BUSINESS

YELLOWSTONE

JANUARY, 1938

National Park for the Month of

	This Month	This Month Last Year	Increase	Percent Increase
LOCAL BUSINESS				
Miles of circuit maintained	532	528	4	0075
No. of telephones connected	186	177	9	05
No. of measured service calls				
No. of other local calls	4382	2888	1494	517
Total No. of local calls	195	147	48	325
Peak load in calls per day				

Receipts from measured service calls
 Receipts from coin boxes
 Receipts from telephone rental

TOTAL RECEIPTS

LONG DISTANCE BUSINESS

No. Outbound calls	65	53	10	18
No. Inbound calls	41	34	17	71

TOTAL LONG DISTANCE CALLS

Peak load in calls per day 5 4 1 23
 Receipts from Long Distance business

TELEGRAPH BUSINESS

Messages via Western Union
 Messages via
TOTAL MESSAGES

Receipts from telegraph business
 No. of money transfer messages
 No. of money transfer receipts

TOTAL RECEIPTS TELEPHONE & TELEGRAPH DEPT-

UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

OFFICE OF THE SUPERVISOR
NATIONAL PARK SERVICE
WASHINGTON, D. C.

DATE

NO.	NAME	RANK	GRADE	REMARKS
-----	------	------	-------	---------

TOTAL

101	J. H. ...	Sergeant	E-5	...
102	...	...	...	...

TOTAL

TOTAL

TOTAL

103	...	...	...	...
104	...	...	...	...

TOTAL

TOTAL

TOTAL

TOTAL

TOTAL

UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

*ELECTRICITY GENERATED, SOLD, USED, ETC.

YELLOWSTONE National Park for the Month of JANUARY, 1932.

	This Month	This Travel Year To Date	This Month Last Year	Last Travel Year To Date	Increase for	
					Travel Year	Year
					Number	Percent
Current generated,	52920.0	480630.0	59950.0	492292.0	-11662.0	-0236
Sold to park operators, . . .	1141.0	50292.0	867.6	60599.7	-10298.7	-17
Sold to others,						
Furnished to other Governmental agencies,						
Used by National Park Service, lost in transit, etc., . . .	55779.0	430338.0	59052.4	431701.3	-1363.3	-003
Total current generated, . .	<u>56920.0</u>	<u>480630.0</u>	<u>59950.0</u>	<u>492292.0</u>	<u>-11662.0</u>	<u>-0236</u>

Amount receivable from the sale of electricity, \$ 57.05

* Indicated by K. W. H.

UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL FIRE SERVICE

STATISTICAL SUMMARY

For the Year Ending December 31, 1955

Type of Fire	Number of Fires	Deaths	Injuries	Property Damage (in thousands)	Total Loss (in thousands)
Structure					
Dwelling					
Commercial					
Industrial					
Public Building					
Other					
Transportation					
Automobile					
Aircraft					
Ship					
Other					
Forest					
Timber					
Other					
Other					
Boat					
Other					
Total					

... ..

... ..

... ..

... ..

... ..

... ..

... ..

G. W. ...

Department of the Interior
National Park Service
Yellowstone National Park
Yellowstone Park, Wyoming

Office of the Superintendent

January 26, 1932

CIRCULAR NO. 1

Some of our people here have been parking their cars in front of the garbage can stands, thus rendering it difficult for the garbage man to collect the ashes and garbage. In order to facilitate the handling of this work, it is requested that all employees cooperate by parking their cars away from the stands so as not to interfere with the emptying of the cans.

Guy D. Edwards
Acting Superintendent.

Department of the Interior
National Park Service
Yellowstone National Park
Yellowstone Park, Wyoming

Office of the Superintendent

January 25, 1932.

MEMORANDUM TO ALL EMPLOYEES:

On January 22, 1931, a memorandum was issued requiring those eating regularly at the Government mess to notify the cook several hours in advance when they would be elsewhere for meals, otherwise the meal would be charged whether eaten or not.

It was further requested that everyone be punctual at meals.

Both of these requirements, in several instances, are not being lived up to and this is a general reminder that from this date the memorandum of January 22, 1931, will be strictly enforced.

Guy D. Edwards
Acting Superintendent.

United States Post Office

CLASS

Yellowstone Park, Wyo., February 3, 1932.

NOTES FOR JANUARY MONTHLY REPORT:

Post Office: Winter conditions prevailed and there was nothing unusual to report.

Church Services:

Religious services were held in the park twice during January, namely morning of Sunday, the 10th by Rev. L. D. Smith, and evening of Monday, the 25th, by Rev. Webster H. Clement. Both of these services were held in the lodge room, as the number attending did not warrant heating the chapel.

W. J.

↳ during the month.

C. A. P.

Yellowstone Park, Wyoming.
February 1, 1932.

MEMORANDUM:

Following is a report of activities under the supervision of Engineering for the month of January, 1932:

No. 170-Maps, Plans, & Surveys:—Work under this item consisted of the inspection of approximately two miles of the proposed high line Gardiner—Mammoth road for the purposed of taking and recording snow guage readings. This work, together with a study of the natural slide conditions, is being done to determine the relative merits of a high line location and the existing road through Gardiner River Canyon.

Five final construction reports were completed and forwarded through Field Headquarters, and three additional reports of the same nature were completed except for the insertion of cost data and photographs.

Maps and plans accumulating from different sources during the Summer season were indexed and filed and a part of the plans from Field Headquarters were reindexed to conform to the requirements of Office Order, No. 232.

²¹⁰
No. 200—Road Maintenance:—Road maintenance for the month consisted of snow removal on the Gardiner—Mammoth road and at headquarters. Snowfall was heavier than usual and this combined with high winds nearly closed our roads several times during the month. Drifts became too deep to be handled with the available equipment of tractor and grader and it was necessary to employ trucks and laborers to clear several sections by hand and dispose of the snow by hauling.

Sixty additional feet of snow fence was installed at Mammoth and an equal length constructed on the Gardiner—Mammoth road near the top of "Soap Hill".

No. 230—New Construction, Roads:—No construction projects were active during the month.

C. A. R.

(COPY)

Jan. 2, 1932.

Memo. for Mr. Edwards.

From Oct. to Jan 1st

The following equipment has been thoroughly overhauled and made ready for service to date.

Trucks Nos. 517-520-521-522(Chev. dump)-524(Chev. dump)-527-528-529(Chev. dump)-532-533-543-544-545-546-549-550-554-557-558-562-566-567-577-579-14-17-33.

Passenger cars Nos. 11-12.

Motor Patrols Nos. 2-3-4-5-6-7-8-10-11-12.

Leach concrete mixer No. 4.

In addition to the above the usual repair and maintenance of equipment in operation from Oct. 1st to Jan. 1st has been done.

R. R. Robinson.

gdr

Yellowstone Park Wyo.
February 1st, 1932

WORK REPORT FOR JANUARY 1932

Made repairs to four telephones (in shop)

Mr. Bowmans water heater taken out, cleaned & reinstalled.

Completed inventoring electrical appliances in all Government buildings at Mammoth for making up schedule showing electrical current consumed in each building.

Two days clearing trouble on the Gardiner telephone line.

Installed one base plug or convenient outlet in Mr. Tompkins kitchen.

Put in wiring & installed 4-base plugs or convenient outlets in Mr. Rush laboratory.

Replaced six pendant switches in Mammoth Mess house dining room.

Installed one light in basement, for Museum file room.

C. D. Dale
C. D. Dale

STOREHOUSE REPORT

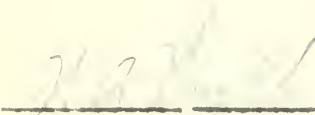
of

Operations, including brief Summary of Major Equipment
and Supplies recieved during the month of

JANUARY

The Storehouse received and distributed 4 car-load of Egg Coal to the Quarters, Shops, and Office Building, 1 car-load of Hard Grate Coal to Mammoth Mess, and 1 car-load of Screenings Coal to the Jail Building. A 1099 lb. shipment of Brooms and Brushes was received from the U. S. Penitentiary Annex, Fort Levenworth, Kansas. Through the General Supply Committee's cantract a 6686 lb. shipment of Tires was received. This order consisted largely of solid non-skid tires for Motor Patrols.

Activities of the Storehouse for the past month have been largely confined to a Physical Inventory of Equipment. This Inventory is well under way and will no doubt be completed during February.



Storekeeper.

WAW/DDC

Copy for Mrs Greer.

In file

February 3-1931

Work done by the
Sanitary Department
during January 1931

71 amms

Operations and maintenance
the water and sewer systems.
On account of the
extreme low water it was
necessary to shut down the
Hydro-Electric plant on several
occasions.

Electric heating plants
for heating the Administration
Building, Garage and Engineer
Quarters were maintained and
operated during the month
of January. The same
heating plant as well as the
air heat -

11/11
Alma - 2-22

The handling of cases,
Carroll and Cleburne the
Ingram's office, Gusto's office,
Shel's house and B... also
also... was done...

General maintenance to
inside plumbing systems, Re...
to... and... in
the... building.

9:30 P.M.

Page 1 of 1 by 10/10/10

10/10/10 10/10/10 10/10/10

10/10/10 10/10/10 10/10/10

10/10/10 10/10/10 10/10/10

10/10/10 10/10/10 10/10/10

10/10/10 10/10/10 10/10/10

10/10/10 10/10/10 10/10/10

1.3

In Mrs Green
Monthly Report

Feb. 1st, 1932.

Memo for Mr. Edwards.

Garage

The following equipment has been thoroughly overhauled and made ready for service during the month of January.

Trucks Nos. 510-518-548-559-561-572-573-574-578-15-20-21-24-32.

In addition to the above a new oil tank of 1000 gals. capy. was installed on truck No. 560 and freight body on truck No. 510 was completely rebuilt. Oil pump engine on truck No. 566 overhauled.

The usual repair of small tools and equipment has gone forward and we are now filing saws on the 216.0 account.

R. R. Robinson.

Add insert #1 after this.

Then add #2

STOREHOUSE REPORT

of

Operations, including brief Summary of Major Equipment
and Supplies recieved during the month of

JANUARY

The Storehouse received and distributed 4 car-load of Egg Coal to the Quarters, Shops, and Office Building, 1 car-load of Hard Grate Coal to Mammoth Mess, and 1 car-load of Screenings Coal to the Jail Building. A 1099 lb. shipment of Brooms and Brushes was received from the U. S. Penitentiary Annex, Fort Levenworth, Kansas. Through the General Supply Committee's cantract a 6686 lb. shipment of Tires was received. This order consisted largely of solid non-skid tires for Motor Patrols. *No shipment was received during the month.*

Activities of the Storehouse for the past month have been largely confined to a Physical Inventory of Equipment. This Inventory is well under way and will no doubt be completed during February.

W. A. D. C. Storekeeper.

WAW/DDC

Copy for Mr Edwards.

Yellowstone Park Wyo.
February 1st, 1932

REPORT OF ELECTRICAL & TELEPHONE BUSINESS FOR JANUARY 1932

	<u>This</u> <u>Month</u>	<u>This Mo.</u> <u>Last Yr.</u>	<u>Increase</u>	<u>Percent Inc.</u>
Miles of circuit maintained	532	528	4	.0075
No. of telephones connected	186	177	9	.05
No. of measured service calls				
No. of other calls				
Peak load in calls				

C. D. Dale
C. D. Dale

SUMMARY OF WEATHER CONDITIONS

at

MAMMOTH HOT SPRINGS, YELLOWSTONE NATIONAL PARK

January, 1932

January was a markedly cold month, without notable extremes. That is to say, it was characterized by the continuance mainly of steady cold weather. Normally the month, the normal temperature of which is 17.6 degrees, is the coldest month of the year. When a passing January averages decidedly below normal, as did January, 1932, the cold is felt, though not, of course, so uncomfortably as when there is an occasional day with minimum temperature in the twenties or thirties below zero. Thus, while the past month was a cold month, the absence of great negative departures permitted it to be considered as a fairly comfortable month for January. The alternation of periods above and below normal evened up the departures during the first 12 days, so that there was no accumulated departure at the close of the 12th. From then on, however, there was always an accumulated negative departure, with all days except the 18th, 19th, and 20th, below normal. The highest temperature of the month, 35 degrees, was registered on the 19th. With a mean temperature of 13.7, January averaged 3.9 degrees per day below normal. The lowest temperature, -15 degrees, occurred in the morning of the 31st, but a welcome chinook terminated the cold spell before midnight on the same day. A temperature of 14 degrees below zero was recorded on the 13th.

The precipitation of January, 1932, was all in the form of snow, of which the total fall, to 6 p.m. of the 31st, was 20.2 inches, producing 0.83 inch of water. Only five days of the month failed to produce some snow, and measurable amounts, melted, occurred on 17 days. There were no very heavy snowfalls within 24 hours, the greatest being 4.7 inches on the 9th-10th, but an excellent snow cover persisted during the month. The least depth of snow on the ground was 14.7 inches, on the 4th. The greatest depth was 20.3 inches at the last observation of the month, 6 p.m. on the 31st.

Four days averaged clear, eight partly cloudy, and 19 cloudy. Sunshine was 38 per cent. of the possible duration. Relative humidity was high, averaging 77.8 per cent., 67.6, and 75.8, respectively, at the three daily observations, 6 a.m., noon local mean time, and 6 p.m. The prevailing wind was from south, with southwest a close second. The total monthly movement was 6,081 miles, giving an average hourly velocity of 8.2 miles.

The use of the 4-cup Robinson anemometer was resumed on the 1st as the standard for measurement of wind movement.

W. T. LATHROP, Meteorologist.

