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

✓	ROGERS.....	
✓	EMBERT.....	22.7
✓	JOFFE.....	
✓	MUNDLEY.....	
✓	GEBHARDT.....	
✓	LORD.....	
✓	LANOUE.....	22
✓	NEILSON.....	
✓	BAUER.....	22.8
✓	COWE.....	
✓	SMITH.....	
✓	ELLINGT.....	22.9
✓	MILLER.....	
✓	TENINI.....	
✓	ROBINSON.....	

FILE NO.

MONTHLY REPORT

March, 1937.

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This file constitutes a part of the official records of the National Park Service and should not be separated or papers withdrawn without express authority of the official in charge.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.

ARNO B. CAMMERER,
Director.

DEPARTMENT OF THE INTERIOR

NATIONAL PARK SERVICE

YELLOWSTONE NATIONAL PARK

YELLOWSTONE PARK, WYO.

ICE OF THE SUPERINTENDENT

April 3, 1937

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

ATTENTION: Branch of Operations (Assistant Director)

Dear Mr. Director:

The following is the report of activities in Yellowstone National Park during the month of March, 1937:

000 - General

The month of March, with its usual weather peculiarities, was unusual this year in that both the early and latter part of the month were mild. The severe weather of February broke late in that month and the first week in March was mild and pleasant with a rapid disappearance of the snow. Beginning about the twelfth of the month and continuing almost until the end thereof, the weather was very unsettled with snow falling almost daily. However, the temperatures were mild most of this period and the snow melted rapidly. The last few days witnessed pleasant weather with warm temperatures and the rapid disappearance of the snow.

The total snowfall for the month of March was 21.3 inches, compared to a normal of 14.4 inches, while the total snowfall for the season is 85.7 inches or 10.3 inches above normal. All of the precipitation during the month occurred as snow. A trace or more of snow fell on 19 days of the month while .01 inch or more (melted depth) fell on 14 days. There were 5 clear days, 7 partly cloudy and 19 cloudy days in the month.

The hunting season on elk in Park County, Montana was brought to a close at the end of March 1. By the 7th of the month the Park's elk reduction program was completed. On that date the last live shipment was made, which brought the total herd reduction to 846 animals, consisting of 256 killed by hunters, 169 live shipments, 394 slaughtered and 27 miscellaneous deaths. During the first week of the month live shipments were made to the State of Idaho, Wise River, Montana, and two elk and two buffalo were sent to the Zoological Gardens at Buenos Aires, Argentina. Two attempts to count elk during the month proved unsuccessful, due to stormy and foggy weather conditions and because the elk were ranging in small widely scattered groups.

DEPARTMENT OF THE INTERIOR

NATIONAL PARK SERVICE

YELLOWSTONE NATIONAL PARK

YELLOWSTONE PARK, WYO.

THE SUPERINTENDENT

August 2, 1907

The National
Park Service
Washington, D. C.

Commissioner, Bureau of Land Management (Washington)

Dear Sir:

The following is the report of the investigation of the
Yellowstone National Park, Wyoming, made by the

Commissioner

The report of the investigation of the
Yellowstone National Park, Wyoming, made by the
Commissioner, Bureau of Land Management, Washington, D. C.,
is herewith submitted for your information. The report
contains a description of the park, its location,
its extent, its natural resources, its history,
its present condition, and its future prospects.
It also contains a list of the principal
landowners and a list of the principal
mineral interests in the park.

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Commissioner, Bureau of Land Management, Washington, D. C.,
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landowners and a list of the principal
mineral interests in the park.

On March 1 the Yellowstone Park Company opened its bunkhouse and mess hall at Mammoth and increased its crews to further work in connection with its new Mammoth development. Excellent progress was made throughout the month and it is expected to have everything in readiness by the beginning of the 1937 official season. The Company started its garage work at Gardiner on March 15 and some twenty men were put to work.

A fire, which completely destroyed the Gardiner checking station inside the North Entrance Arch, except the stone walls, occurred about 2 a.m. on the morning of March 4. The station was occupied by C.C.C. enrollees, who rendered excellent work in salvaging what was possible from the burning building. By the end of the month no funds had been forthcoming for reconstructing this checking station, which will be badly needed as soon as the collection of the motor vehicle license fee begins on May 15.

On March 15 a letter was received from the Maryland Casualty Company, Baltimore, Maryland, the surety on the contract for the new Mammoth utility building, advising that the Company waived its option to complete the project. On March 24 word was received from our Washington Office that the project should be completed by the Government and the following day work was started by force account. This project was due to have been completed on December 1, 1936 and the delay has inconvenienced the park considerably, as the new structure will greatly improve working conditions for members of the garage force and will lend to more efficient work. Siegfus Brothers, the contractor on this project, is also the contractor on the new post office building for Mammoth, which building has also been considerably delayed and will not be ready for occupancy this summer.

Considerable excitement occurred in the park on March 16 when it was learned that Oliver Winlare, the Lake Lodge winterkeeper, was stricken with a sudden illness. Mr. Winlare became ill on the 14th but it was not until the following day that he was able to summon assistance. Ranger Frank Anderson, on duty at the Lake ranger station, rendered what aid was possible to Mr. Winlare and was in constant touch with the park medical officer at Mammoth. He remained with Winlare throughout the night of the 15th. When the man's condition did not improve by the following morning, Dr. Gailmard, the resident physician, ordered the man brought into headquarters from where he could be transferred to the hospital in Livingston. Because the sick man was not running a temperature and as his pulse was normal, it was difficult to diagnose his illness.

On the morning of the 16th Ranger Anderson and Frank Dallin, the Lake Hotel winterkeeper, made Mr. Winlare ready for the trip on an improvised sled. Travelling on snowshoes and pulling their human cargo, the men started out for Canyon. In the meantime the new snowplow, which had been received the previous day, started out from Mammoth toward Canyon to open the road as far as possible and relieve the necessity for transportation by sled. The two winterkeepers from the Canyon Hotel, Dolph Egger and Peter Kinsella, and the Canyon Lodge Winterkeeper Charles

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On March 10 a letter was received from the Yellowstone Park Company,
Baltimore, Maryland, the answer to the contract for the new Mammoth
utility building, advising that the Company waived its option to complete
the project. On March 24 word was received from our Washington Office
that the project should be completed by the Government and the following
day work was started by force account. This project was due to have
been completed on December 1, 1936 and the delay has involved the
park considerably, as the new structure will greatly improve the
conditions for members of the game force and will lead to more
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until the following day that he was able to summon assistance. Frank
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possible to Mr. Wilson and was in constant touch with the medical
officer at Mammoth. He remained with Wilson throughout the night of
the 15th. When the man's condition did not improve on the following
morning, Dr. Gifford, the resident physician, ordered the man brought
into headquarters from where he could be transferred to the hospital in
Livingston. Because the sick man was not running a temperature and his
pulse was normal, it was difficult to diagnose his illness.

On the morning of the 16th Ranger Anderson and Frank Bellin, the
Lake Hotel waterkeeper, made Mr. Wilson ready for the trip on an improm-
vised sled. Traveling on sawhorses and pulling their human cargo, the
men started out for Canyon. In the meantime the new sawhorse, which had
been received the previous day, started out from Mammoth toward Canyon
to open the road as far as possible and relieve the necessity for trans-
portation by sled. The two waterkeepers from the Canyon Hotel, Ralph
Egger and Peter Kinsella, and the Canyon Lodge Waterkeeper Charles

Ortley started from Canyon toward Lake to meet Anderson and Dallin and render their assistance. When the group met up with the party, Dallin returned to his Lake station and the other men continued on to Canyon. The trip from Lake to Canyon, a distance of 14 miles, took from 11 a.m. to 9 p.m., and on the trip the men encountered one of the worst blizzards of the season which made travel extremely difficult and hazardous. After a night's rest at Canyon, the party started out again toward Norris at 1 p.m. expecting to meet the snowplow, which was being followed by the ambulance somewhere between Norris and Canyon. Park Rangers Al Elliott and Maynard Barrows and Park Naturalist Kearns started on snowshoes from Norris to meet the party and to render their assistance. The party with the sick man and the snowplow met near the top of Blanding Hill, about four miles from Norris, where the injured man was examined by Dr. Gailmard and transferred to the ambulance. The ambulance conveyed the patient to the Park Hospital in Livingston, reaching there about 9 p.m. Upon examination it was learned that Winlare had suffered from a ruptured appendix and immediately operation was performed by Dr. G. A. Windsor. The patient made excellent progress following the operation and, by the end of the month, was well on the road to complete recovery. Too much credit cannot be given to Park Ranger Frank Anderson, the Lake and Canyon Winterkeepers, and the members of the snow crew who worked faithfully and untiringly in their efforts to bring the sick man out to civilization, as well as to the Rangers Elliott and Barrows and Assistant Park Naturalist Kearns for their assistance. The men transported the sled a total distance of 21 miles while the snowplow opened 25 miles of road. Newspapers throughout the country carried stories of the incident and the associated press syndicated one picture of the crew carrying the sick man over the hot formation near Solfatara Plateau.

The members of the Yellowstone organization were saddened to learn of the passing on March 23 of Colonel Charles G. Thomson, Superintendent of Yosemite National Park. Colonel Thomson died at Yosemite at the age of 53. Funeral services were held in the valley at Yosemite on the 25th. The remains were cremated. While Colonel Thomson was not directly connected with the Yellowstone, he was well known to many of the park personnel and visited the park on three different occasions. Colonel Thomson was one of the early superintendents in the Park Service and rendered outstanding service while in charge of Crater Lake and Yosemite National Parks. The Yosemite and National Park Service will suffer a great loss through his passing.

Dr. William A. Hornaday, one of the leading zoologists and conversationists of the country and for thirty years Director of the New York Zoological Gardens, died at his home in Stamford, Connecticut at the age of 82 on March 6 following an illness of several months. Dr. Hornaday was vitally interested in many problems affecting the Yellowstone and early in the 20th century aided in promoting legislation which resulted in the establishment of the park's present buffalo herd. Dr. Hornaday was active in promoting game preserves and new laws for the protection of wild life generally, took the initiative in promoting the creation of the Montana National Bison Range and the Wichita National Bison Range and the Elk River Game Preserve in Montana, and was President of the American

Orlitz arrived from Canyon early in the morning and had dinner with the group. Then the group went up with the party, which returned to his station and the other men continued on to Canyon. The trip from Lake to Canyon, a distance of 11 miles, took from 11 a.m. to 9 p.m., and on the trip the men encountered one of the worst conditions of the season which made travel extremely difficult and dangerous. After a night's rest at Canyon, the party started out again toward Fort Huachuca. The party was met at the camp, where it was followed by the ambulance somewhere between Fort Huachuca and Canyon. Part of the party and the ambulance returned to the station at Fort Huachuca and the rest of the party went to meet the party and to render their assistance. The party with the ambulance and the ambulance returned to the station at Fort Huachuca, where the ambulance was examined by Dr. G. G. Galtman and transferred to the ambulance. The ambulance conveyed the patient to the Park Hospital in El Paso, where it arrived about 9 p.m. Upon examination it was found that the patient had a severe case of appendicitis and that the operation was performed by Dr. G. G. Galtman. The patient made excellent progress following the operation and, by the end of the month, was well on the way to complete recovery. The credit cannot be given to Park Hospital, the Park and Canyon Interceptors, and the members of the army who worked faithfully and untiringly in their efforts to bring the patient out to civilization, as well as to the doctors Elliott and Brown and Assistant Surgeon Naturalist for their assistance. The man transported the patient a total distance of 11 miles while the ambulance spent 23 miles of road. Newspapers throughout the country carried stories of the incident and the associated press indicated one of the most daring rescues in the history of the West.

The members of the Yellowstone organization were organized to form of the passing on March 23 of Colonel Thomas A. Horn, Superintendent of Yosemite National Park. Colonel Thomas died at Yosemite at the age of 53. Funeral services were held in the valley at Yosemite on the 25th. The remains were cremated. While Colonel Thomas was not directly connected with the Yellowstone, he was well known to many of the park personnel and visited the park on three different occasions. Colonel Thomas was one of the early superintendents of the Park Service and rendered outstanding service while in charge of Glacier Lake and Yosemite National Parks. The Yosemite and National Park Service will suffer a great loss through his passing.

Dr. William A. Hornaday, one of the leading zoologists and conservationists of the country and for thirty years Director of the New York Zoological Gardens, died at his home in Buffalo, New York, at the age of 83 on March 2 following an illness of several months. Dr. Hornaday was vitally interested in many problems affecting the Yellowstone and early in the 20th century sided in promoting legislation which resulted in the establishment of the park's present bird's head. Dr. Hornaday was active in promoting game preserves and new laws for the protection of wildlife generally, took the initiative in promoting the creation of the Montana National Bison Range and the Wichita National Bison Range and the Elk River Game Preserve in Montana, and was President of the American



Party starting out from Canyon Ranger Station
on the second day with sick man Winlare.



Party at a hot spot near Solfatara Plateau
with Winlare on improvised sled.



THE UNIVERSITY OF CHICAGO



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Bison Society from 1907 to 1910. He was the author of numerous publications dealing with the wild life of the country.

Ben Lamb, an employee in the Yellowstone Park Hotel Company commissary at Mammoth for a number of years, died in Los Angeles on March 13. He was buried in Big Timber, Montana on March 18.

Stanley Todd, employed as a clerk in the post office at Mammoth several years ago, was killed in an unusual accident in Great Falls, Montana on March 30. Mr. Todd was struck by a large piece of pipe thrown several hundred feet by an explosion. He will be buried at his former home in Big Timber, Montana on April 2.

020 - General Weather Conditions

A summary of the general weather conditions for the park will be found attached to the back of this report.

021 - In the Park

Weather conditions over the entire park have been comparable to those recorded at Mammoth, although somewhat more severe at higher elevations. Precipitation has been about normal and no extreme temperatures have been recorded. The weather was mild and clear during the first ten days of the month but the remainder of the month was characterized by cloudy and stormy weather.

The following tabulation shows the comparative snow depths in inches at various points in the park, as recorded on the last of the month:

<u>Location</u>	<u>1932</u>	<u>1933</u>	<u>1934</u>	<u>1935</u>	<u>1936</u>	<u>1937</u>
Buffalo Ranch	24	20	0	11	24	17
Bechler River	90	60	16	60	88	
Cooke	36	36	30	34	40	42
Canyon	72	58	14	42	60	40
Gallatin	40	36	18	36	36	31
Lake	38	28	16	36	53	35
Lewis River	102	90	50	84	130	92
Mammoth	12			6.8	10.9	1
Snake River	78	59	24	54	81	50
Soda Butte	19	20		12	24	17
Tower Falls	18	20		12	28	17
West Yellowstone	47	42	12	41	51	40

022 - Approaches to the Park

The approach road to the north entrance has been open to travel and free of snow throughout the entire month.

The approach road to the west entrance, via Bozeman, Montana, has been kept open to travel by snow removal crews employed by the Montana State Highway Department. This is the first winter on record that any attempts have been made to keep this highway open to travel throughout the entire winter. Snow removal crews have experienced considerable difficulty in maintaining the road in passable condition but they have succeeded in maintaining travel at all times except during severe storm periods.

The approach road to the east entrance has been kept open to motor vehicle travel to a point within twelve miles of the east gate during the entire winter. No attempts have been made to maintain travel over the twelve miles from Wapiti ranger station to the park boundary. This section of highway is still blocked by twenty to fifty inches of snow.

023 - In Nearby States

Weather conditions in the surrounding states have been reported as comparable to those recorded in the park, except that in some sections of Montana and Wyoming there has been more than the usual amount of snow-fall for this season of the year. This is especially true of valley and plains regions.

100 - Administration

110 - Status of Work

Superintendent Rogers was in the park throughout the month, most of his time being consumed in activities around headquarters.

Several employees were absent on leave but it was possible to keep most of the work current.

Telephone Operator Mildred Christenot returned from several weeks leave on March 4. On the 11th Mrs. E. A. Allan, Telephone Operator, departed for California on leave and will be absent until the middle of April.

Senior Clerk Boyd Larsen and Acting Chief Ranger LaNoue started on leave on the 17th to be gone for several weeks.

Warehouseman Francis Roylance returned from leave on the 20th. Mr. Roylance had been visiting in California.

Clerk Jerry Tonini returned from a week's leave on the 22, following a trip to Denver, Colorado.

Park Engineer Lord returned to duty on March 29, having been absent since February 3, on which date he underwent a major operation in the Park Hospital in Livingston.

The approach road to the west entrance, via Doreau, has been kept open to travel by snow removal crews assigned to the State Highway Department. This is the first winter of record that attempts have been made to keep this highway open to travel throughout the entire winter. Snow removal crews have encountered considerable difficulty in maintaining the road in passable condition but they have succeeded in maintaining travel at all times except during severe storm periods.

The approach road to the east entrance has been kept open to motor vehicle travel to a point at its twelve miles of the east entrance during the entire winter. No attempt is to be made to maintain travel over the twelve miles from Westview to the east entrance. This section of highway is still closed to travel in winter months of snow.

023 - In Heavy States

Weather conditions in the surrounding states have been reported as comparable to those recorded in the past, except that in some sections of Montana and Wyoming there has been more than the usual amount of snow fall for this season of the year. This is an early time of heavy and blizzard regions.

100 - Administration

110 - Status of Work

Superintendent Rogers was in the city throughout the winter, most of his time being consumed in activities around headquarters.

Several employees were absent on leave but it was possible to keep most of the work current.

Telephone Operator Mildred Christensen returned from several weeks leave on March 4. On the 11th Mrs. E. A. Allen, Telephone Operator, departed for California on leave and will be absent until the middle of April.

Senior Clerk Boyd Hansen and Acting Chief Parker Larson started on leave on the 17th to be gone for several weeks.

Technician Francis Roylance returned from leave on the 20th. Mr. Roylance has been visiting in California.

Chief Jerry Tomlin returned from a week's leave on the 22, following a trip to Denver, Colorado.

Chief Engineer Lord returned to duty on March 29, having been absent since February 5, at which date he went on a major operation in the Park Hospital in Livingston.

Clerk Verna Roe was on annual leave throughout the month. Accompanied by Helen Mahoney, clerk in the Mammoth Post Office, Miss Roe is visiting in Hawaii.

Selmer J. Logeland, who has been employed as a plumber's helper, having been selected from Civil Service in 1933, received an appointment to a permanent position as plumber's helper effective March 10 at \$1320 per annum, grade 5.

The appointment of Earl Semingsen to the position of park ranger, vice Frank Oberhansley, was received on March 15. Mr. Semingsen will enter on duty under his new appointment on April 15.

March 26 was the closing date for the filing of applications for the examination for park ranger which will be held to establish a new register from which selection can be made for filling future ranger vacancies. The last examination was held in the fall of 1933 for the position of junior park naturalist, from which register we have been required to select our ranger eligibles during the past three years.

120 - Inspections by:

121 - Superintendent

Superintendent Rogers spent most of the month at the park headquarters at Mammoth and made trips into the interior and outside the park during the month as follows:

March 3 - To Buffalo Ranch and return with Acting Chief Ranger LaNoue.

March 9 - To Bozeman and West Yellowstone and return to Bozeman with Messrs. LaNoue and Seasholtz to look over road and telephone line.

March 10 - Returned to park from Bozeman.

March 14 - With Assistant to the Superintendent Joffe attended meeting of Northern Pacific Railroad and Ticket and Freight agents; returned Mammoth for night.

March 16 - With Messrs. Emmert, LaNoue, Miller and Elliott made trip to 9-mile post toward Norris to observe working of new snowplow.

March 17 - With Mr. Joffe made trip to Blanding Hill to observe working of new snowplow and look over general snow conditions.

122 - Special Field Representatives of the National Park Service

Landscape Architect Sanford Hill visited the park from March 13 to the 22, on matters in connection with landscape features, making the trip here from Denver.

Chief, who was on duty at the time, was informed by Helen Mahoney, clerk in the office, that she is waiting in a hall.

Delmer T. Johnson, who has been employed as a night watchman, having been called from duty on March 15, 1934, and on March 16, 1934, he was on duty at the time of the fire.

The statement of Delmer T. Johnson as to the position of the fire, vice the statement of Helen Mahoney, was received on March 15, 1934, and on duty on duty on March 15, 1934.

March 15 was the closing date for the filling of applications for the examination for the position of night watchman. The examination was held on March 15, 1934, and the results were as follows: The last examination was held in the fall of 1933 for the position of night watchman, and the results were as follows: The examination was held on March 15, 1934, and the results were as follows:

130 - Inspection by:

131 - Superintendent

Superintendent Rogers spent most of the day at the post office at Mammoth and made trips into the interior and made the following the month as follows:

March 8 - To Buffalo Ranch and return with Chief John Johnson.

March 9 - To Boxman and West Yellowstone and return to Mammoth with Messrs. Johnson and Scholtz to look over road and telephone line.

March 10 - Returned to Mammoth from Boxman.

March 14 - With Assistant to the Superintendent, John Johnson, to Northern Pacific Railroad and Ticket and Freight Agents; returned Mammoth for night.

March 15 - With Messrs. Johnson, Miller and Elliott made trip to 9-mile post to observe working of new road.

March 17 - With Mr. Telle made trip to Mammoth Hill to observe working of new snowplow and look over general area conditions.

18 - Special Field Representative of the National Park Service

Landscaper - Architect Sanford Hill visited the park from March 15 to 18, on matters in connection with landscape features, and the trip here from Denver.

125 - Other Government Officers

Verne E. Davidson, Regional Biologist, Soil Conservation Service, Rapid City, South Dakota, visited the park from the 18th to the 20th, in connection with the Park's elk count.

Cornelius F. O'Leary, Examiner, U. S. Employees' Compensation Commission, Seattle, Washington, visited the park on March 22 to investigate details in connection with an injury to Roy McKenzie in 1932.

140 - Labor Situation

The Yellowstone Park Company was responsible for placing a number of men, mostly skilled laborers, in connection with work on their new Mammoth project, while some twenty men were employed with the opening of the Company's garage at Gardiner on the 15th. Peter Kiewit & Sons Company, the contractor on the Lamar Canyon job, continued work throughout the month and was responsible for keeping a few men engaged. Several men were employed near the end of the month by the Government for the force account job in connection with the completion of the Utility Building.

150 - Equipment and Supplies

There were four carloads of coal, one carload each of lumber, cement, snow plow and Corbitt truck received in addition to other shipments of fire pumps, paint, sweeping compound, hardware and iron weighing 8,690 lbs.

160 - Status of Alienated Lands

There was no change in the status of alienated lands in the park during the month but a hearing was held in Washington in connection with the bill providing for the purchase of all private lands in the area between the park and Yankee Jim Canyon to be used for further winter range for the northern elk herd.

170 - Plans, Maps and Surveys

Work under this heading was still routine, consisting of preparation of plans and estimates for proposed future work, odd jobs for other departments, sketches of objects for bids, proposed work, locating areas for future location of snow fences, working on road maintenance budgets, etc. Drawings were completed for proposed campsites and sketches and road mileages were completed for maintenance costs.

180 - Circulars, Placards, Publicity Bulletins, Etc.

Circulars Nos. 5 to 8, inclusive, were issued during the month and copies are attached. The March-April issue of Nature Notes was completed during the month and copies were distributed on the 31st. A copy is attached. Considerable park publicity resulted from the incident in

132 - U.S. Department of Agriculture

Verne J. Davidson, Botanist, U.S. Department of Agriculture, Washington, D.C., advised that the first time the 1500 was used, in connection with the 1500's 1500.

Commissioner, U.S. Department of Agriculture, Washington, D.C., advised that the 1500 was used in connection with the 1500's 1500.

140 - Labor Attention

The Yellowstone Park Company was responsible for the building of the man, mostly skilled laborers, in connection with the 1500's 1500. The project, while some twenty years ago, was completed in the 1500's 1500. The contractor on the James Canyon job, completed work through out the month and was responsible for seeing a few days work. The men were employed near the end of the month of the 1500's 1500. The force account job in connection with the completion of the 1500's 1500.

150 - Equipment and Supplies

There were four carloads of coal, one carload each of lumber, 1500's 1500. The 1500's 1500 received in addition to other supplies of the pumps, paint, sleeping compound, hardware and iron weighing 8,500 lbs.

160 - State of Allocated Lands

There was no change in the state of allocated lands in the park during the month but a hearing was held in the park in connection with the 1500's 1500. The 1500's 1500 provided for the purchase of all private lands in the area between the park and Yampa River to be used for further water storage for the northern elk herd.

170 - Plan, Map and Survey

Work under the 1500's 1500 was still routine, consisting of surveying of land and collecting for proposed future work, but some for the 1500's 1500. The 1500's 1500 of objects for the 1500's 1500, proposed work, for the 1500's 1500. The 1500's 1500 for future location of new fences, working on road maintenance, etc. The 1500's 1500 for proposed surveying and drainage work. The 1500's 1500 for maintenance work.

180 - General, Financial, Publishing, etc.

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connection with removing Oliver Winlare, Lake Lodge Winterkeeper, who was stricken with a ruptured appendix, to the hospital in Livingston. A special edition of the Casper Wyoming Tribune-Herald carried numerous park pictures and special articles by Dr. Bauer and Mr. Joffe. Park Photographer Jack Haynes and Joe Mader, who handles the park publicity during the summer season, were responsible for distributing numerous park pictures for publicity purposes through various sources. A special article for the Colorado Forester was prepared by Acting Assistant Chief Ranger Elliott. Several associated press and united press releases were sent out in connection with the Oliver Winlare incident and special items were released in connection with the departure of a part of the Mammoth C.C.C. camp. On March 4 the DuPont Company broadcasted over the Columbia System a special program in connection with the early history of the park featuring John Colter and Jim Bridger.

200 - Maintenance, Improvements and New Construction

210 - Road Maintenance

Road maintenance has been chiefly on the clearing of the Gardiner-Mammoth highway. Parts of several days were taken to widen the roadway to Tower Junction. The new snogo arrived on March 15 and given a thorough test the next two days in opening the road to meet the Oliver Winlare party.

220 - Improvements

Shops - In addition to the usual maintenance of equipment in operation there were 13 trucks and one sewage pump overhauled during the month. There are the following pieces of heavy equipment yet to be overhauled by the beginning of the working season: 31 trucks, 1 tractor, 3 graders, 1 concrete mixer and 1 sewage pump. Due to the shortage of funds it is doubtful that all of the above equipment will be made ready for use during the coming season.

Electrical Department - In addition to the usual maintenance and repair work during the month, a test table was made for the telephone office and a test board and Wheatstone Bridge connected thereto with all necessary connections for ringing power, battery, ground and test leads being made. A filing system was started for all telephone lines by which a record of the circuits may be made regarding the number of phones on each line, resistance of line, location and length of same. The new transformer vault in the rear of the new Utility Building is practically finished and will be ready to supply energy, power and lights to the Utility Building within a few days.

Carpenter Shop - The usual minor repairs and small jobs were carried on during the month.

Plumbing Department - Besides the usual maintenance and operation carried on during the month, work was commenced on March 23 to complete the heating, plumbing and ventilating in the new Utility Building. On

featuring John Colter and Jim Hickey. System a special program in connection with the early history of the park. On March 4 the United Company presented over the Columbia were released in connection with the signatures of a part of the pamphlet sent out in connection with the Silver Star Incident and special items. Several associated press and United Press releases were Liner Elliott. General associated press and United Press releases were article for the Colorado Forester was prepared by Acting Assistant United park pictures for publicity purposes through various sources. A special during the winter season, were responsible for distributing numerous Photographer Jack Haynes and Joe Hoot, his manager and the publicity park pictures and special articles by Dr. Hootman and Dr. Hoot. The special edition of the Gapper you'll find some interesting carried numerous was a sticker with a picture of the hospital in Silver Star. connection with receiving Oliver Hootman, Lake Louise in 1937, and

008 - Assistance, Improvement and the Conservation

SECRET - 015

test the next two days in opening the road to meet the Oliver family party.

NON-REVOTANI - 039

There are the following pieces of heavy equipment yet to be furnished by the contractor, 33 wheelers, 1 tractor, 1 mixer, 1 concrete mixer and 1 sewage pump. Due to the character of work it is doubtful that all of the above equipment will be made ready for use during the coming season.

in the rear of the new Utility Building is provisionally planned and will be ready to supply energy, power and lights to the Utility Building within a few days.

Garrettsville, Ohio - The usual minor repairs and small jobs were carried out during the month.

the heating, plumbing and ventilating in the new Utility Building. On carried on during the month, work was commenced on a new US to complete Plumbing Department - Besides the usual maintenance and operation

account of the cold weather the sewage effluent was by-passed and the filter trenches drained so as to allow the sewage to flow freely.

Paint Shop - Minor repairs and odd jobs were carried on during the month.

230 - New Construction

F.P. 347 - Utility Building, Mammoth - On March 24, authority was received for the Park Service to complete this building, the bonding company having earlier forfeited their right. Work was immediately started with the plumbing, carpentry and painting.

Contract Construction

No work was done on the Post Office building this month.

Work on the Lamar Canyon road has been proceeding rapidly, the shovel working two shifts. More work was accomplished during the last three weeks than on any previous similar period.

Mammoth Development Plan

The Yellowstone Park Company continued with the interior work on the dining room. The foundations were completed and wall studding started on the new lounge building. Also the clearing of their cabin area was started at Mammoth.

300 - Activities of Other Agencies in the Park

310 - Public Service Contractors

The general store at Mammoth remained open throughout the month to take care of local residents. Work continued on the new Mammoth Hotel-Lodge project and on March 1 the Company opened its Mammoth bunkhouse and mess hall to accommodate its employees. Most of the work during the month was confined to the inside of the new lunch room and on the foundation of the new lodge and office building. F. E. Kammermeyer, Superintendent of Transportation for the Company, arrived in the park on March 14. Joe Bill, the printer for the Yellowstone Park Company, arrived in the park on March 23 and immediately opened his Mammoth print shop.

400 - Flora, Fauna and Natural Phenomena

410 - Ranger, Naturalist and Guide Service

The work of the Protection Department for this month has consisted of the regular winter patrols in the interior of the park and along the park boundaries in addition to law enforcement work, checking travel at the north entrance, game counts, wildlife observations, range studies, feeding the buffalo herd at the Buffalo Ranch, feeding the elk at Slough

account of the cold weather the water in the filter
filter troughs failed to filter the water to filter troughs.

Paint Shop - Minor repairs and oil jobs were carried on during the month.

230 - New Construction

W. J. 347 - Utility Building, located on the north side, electricity was received for the first time to complete this building, the building company having earlier installed this work. Work was immediately started with the plumbing, carpentry and painting.

General Construction

No work was done on the Post Office building this month.

Work on the Lower Canyon road has been proceeding rapidly, the shovel working two shifts. Work was accomplished during the last three weeks on any previous similar work.

Marathon Development Plan

The Yellowstone Park Company continued with the interior work on the dining room. The furniture was completed and will stand in place on the new lounge building. Also the clearing of their office was started at Mammoth.

300 - Activities of Other Agencies in the Park

710 - Public Service Contractors

The general store at Mammoth remained open throughout the month to take care of local residents. Work continued on the new Mammoth Hotel-Lodge project and on March 1 the company opened its Mammoth building and mess hall to accommodate its employees. Most of the work during the month was confined to the inside of the new lunch room and on the remodeling of the new lodge and office building. T. E. Cunningham, Superintendent of Transportation for the company, arrived in the park on March 14, 1931. The printer for the Yellowstone Park Company, arrived in the park on March 23 and immediately opened his Mammoth printing shop.

400 - Forest, Game and Natural Phenomena

410 - Forest, Naturalist and Guide Service

The work of the Protection Department for this month has consisted of the regular winter patrols in the interior of the park and along the park boundaries in addition to law enforcement work, checking travel at the north entrance, game counts, wildlife observations, range studies, feeding the bison herd at the Buffalo Ranch, feeding the elk at Shoshone



Front view of the Utility Building. 3/5/37.



Rear view of the Utility Building. 3/5/37.





View of the new lunch room of the new Mammoth layout under construction by the Yellowstone Park Company. 3/5/37.



View of new Mammoth lunch room from near Pryor's Store. 3/4/37.





3/4/37.

General view of the new Mammoth layout from behind Pryor's Store.



Creek, completion of the elk reduction program, preparation of various reports, and preparation of triangulation maps for fire detection purposes.

The elk reduction program was completed on the sixth of the month when fourteen head of live elk were loaded on trucks for shipment to Wise River, Montana.

All rangers stationed at Mammoth and those assigned to stations within the winter game range devoted from eight to ten days each to game census work. A census of deer, antelope, and bighorn sheep was made early in the month and several attempts were made to count the elk on the winter game range but unfavorable weather conditions prohibited the completion of the count.

The duties of the Naturalist Department consisted of several field trips in connection with observations on birds, animals, and hot springs and for the purpose of taking still and movie photographs; preparation of the March-April issue of Nature Notes; filling requests for rock specimens, pictures, plant materials, etc., and also considerable work was done on the files and rearranging the storerooms, library and work shops.

420 - Museum Service

Some progress was made on museum exhibits, including the preparation of two charts illustrating geyser activity.

460 - Birds

Bluebirds, blackbirds, and meadow larks were among the spring arrivals observed this month.

470 - Animals

All game animals observed during the month were in reasonably good condition, for this season of the year. Some of the young animals and the extremely old animals have been observed to be in poor condition but generally speaking the elk, deer, antelope and bighorn sheep are in good condition. The few days of warm weather during the first part of the month resulted in the snow melting off of a considerable portion of the winter range. At the present time there is a greater area of range accessible than at any time during the winter but in most sections of the winter range all available forage has been consumed.

Bighorn Sheep - A total of 175 bighorns were actually counted during the game census which was made early in the month and it is estimated that the total number present in the park is about 200 head. The sheep appear to be in excellent condition and it has been observed that the lamb crop last year was unusually large.

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reverts, and preservation of the collection made for the collection
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house.

420 - Museum Services

Some progress was made on museum exhibits, including the preservation
of two birds illustrating water activity.

460 - Birds

Birds, including the collection made for the collection made for the collection
house.

470 - Animals

All collection made for the collection made for the collection made for the collection
house.

Birds, including the collection made for the collection made for the collection
house.

Buffalo - Approximately 350 head of buffalo have been on the feed ground at the Buffalo Ranch during this month and all animals observed appear to be in good condition. Two buffalo were shipped to the Buenos Aires Zoological Gardens this month.

Bear - Several bear were observed during the month. The first bear known to have come out of hibernation was a black bear observed at Mammoth on March 7. Both black and grizzly bears have been seen between Mammoth and Norris during the latter part of the month.

Elk - There has been a noticeable migration of elk from the lower sections of the winter range to areas at higher altitudes. The large bands of elk observed in various sections of the winter range during the winter have broken up into smaller bands which are now widely scattered over all available sections of the winter range area. There has been but comparatively few elk die from starvation or other causes to date.

480 - Phenomena

Mammoth Hot Springs

Angel Spring - By the end of March Angel Terrace is showing more activity than at any time during the past three years. The larger vent to the west continues to deposit a great deal of travertine at a very rapid rate and the newer vent on the lower slope to the east has increased in size nearly four times since the end of February.

Baby Spring - A great deal of travertine has been deposited near this spring during the past month and a large volume of water continues to flow to the west.

Blue Spring - is slightly more active than in January and February with about three-fourths of the basins filled with water.

Cleopatra Spring - As reported in February this spring had resumed activity and during March has continued to increase in amount of water flowing and in coloration of the terrace by the algae.

Cupid Spring - This spring has been particularly active during the entire month and beautifully colored, but during the last three days of March evidences a slight decline.

Hymen Spring - Still inactive.

Jupiter Terrace - The increase noted at the end of February has been maintained by this spring throughout March.

Main Spring - has been practically inactive during March.

Minerva Spring - This spring continued active as in February during the early part of March but by the end of the month has ceased flowing altogether.

Butler - Approximately 350 head of buffalo have been on the feed ground at the Butler Ranch during this month and all animals observed appear to be in good condition. The butte area is again in the hands of the zoological service this month.

Bear - Several bear were observed during the month. The first bear known to have come out of hibernation was a black bear observed at Laramie on March 7. Some black and white bears have been seen between Laramie and Norris during the latter part of the month.

Elk - There has been a noticeable migration of elk from the lower sections of the winter range to areas at higher altitudes. The large bands of elk observed in various sections of the winter range during the winter have broken up into smaller bands which are now widely scattered over all available sections of the winter range area. There has been one or two tively few elk the first migration of other years to date.

400 - Thompson

Water in Hot Springs

Angel Spring - By the end of March Angel Spring is showing more activity than at any time during the past three years. The water vent to the west continues to deposit a great deal of travertine at a very rapid rate and the water vent on the lower slope of the east and west in size nearly four times since the end of February.

Baby Spring - A great deal of travertine has been deposited near this spring during the past month and a large volume of water continues to flow to the west.

Blue Spring - is slightly more active than in January and February with about three-fourths of the basin filled with water.

Geopline Spring - as reported in February this spring had resumed activity and during March has continued to increase in amount of water flowing and in coloration of the terrace by the edge.

Gold Spring - This spring has been particularly active during the entire month and beautifully colored, but during the last three days of March evidences a slight decline.

Hyman Spring - still inactive.

Jupiter Terrace - The terrace noted at the end of February has been maintained by this spring throughout March.

Main Spring - has been practically inactive during March.

Minerva Spring - This spring continued active as in February during the early part of March but by the end of the month has ceased flowing altogether.

Mound Spring - This spring is now very colorful and is discharging a strong flow of water both to the southwest and to the east. During the last ten days of the month the warm days and very cold nights have resulted in a breaking off of considerable of the deposits to the southwest in the extinct vent into which the water is now flowing.

Naiad Spring - evidences a strong flow, much as during the past two months.

Opal Spring - The activity of this spring continues about the same in March as during recent months.

Orange Spring Mound - A slight increase is noted in the flow from this spring to the south, and the mound to the south and west is now beautifully colored with algae.

Palette Spring - The discharge from the vents of this spring have continued to spread to the east and although a slight amount of water is flowing to the west of the Devils Thumb, the majority is spreading over the terrace to the east. Minute terraces are rapidly being built up by deposition of new travertine both at the top and along the slope where the water is flowing to the east.

Summit Basin Spring - reached a new high level during March with water flowing over the northwest edge of Main and also into a crack further to the east on Main Terrace.

New Spring - continues to be one of the most active springs on the terraces at present and has maintained a strong flow of water and deposits of travertine during March.

The spring reported in November and December as located to the east of the Old Painted Pool Spring and at the northwest end of the ridge north of the White Elephant Terrace is now more active than it has been at any time in the past three years. The main vent is located in the center of the trail and a considerable amount of water is being discharged over the surrounding areas to the west and north. Dandelions were found blooming along the margins of this spring on March 31.

Stygian Caves - are now partially free from their ice fetters of the winter and there is a little seepage of water from the spring above these caves.

500 - Use of Park Facilities by the Public

510 - Increase or Decrease in Travel

The total travel recorded for this month amounted to 189 motor vehicles and 478 visitors as compared with 286 motor vehicles and 737 visitors reported in March, 1936. The total travel to date is recorded as 3,444 motor vehicles and 9,812 visitors as compared with 4,596 motor

Lower Spring - This spring is very colorful and is discharging a strong flow of water both to the east and to the west. During the last few days of the month the water was very cold and the result is a breaking off of the deposits at the bottom of the spring in the extinct vent into which the water is now flowing.

Upper Spring - evidenced a strong flow, much as during the last two months.

Coal Spring - The activity of this spring continues about the same in fact as during recent months.

Orange Spring - This spring is noted in the flow from this spring to the north, and the road to the south and west is now beautifully colored with algae.

White Spring - The discharge from the vents of this spring have continued to spread to the east and although a slight amount of water is flowing to the west of the Devils Thumb, the majority is spreading over the terrace to the east. Minute terraces are rapidly being built up by deposition of new travertine both at the top and along the slope where the water is flowing to the east.

Summit Basin Spring - reached a new high level during March with water flowing over the northeast edge of the basin and into a crack further to the east on Main terrace.

New Spring - continues to be one of the most active springs on the terrace of present and has maintained a strong flow of water and deposits of travertine during March.

The spring reported in November and December as located to the east of the Old United Pool Spring and at the northeast end of the ridge north of the White Elephant Terrace is now more active than it has been at any time in the last three years. The main vent is located in the center of the trail and a considerable amount of water is being discharged over the surrounding areas to the west and north. Emissions were found blooming along the margins of this spring on March 21.

Stylian Caves - are now practically free from their ice fetters of the winter and there is a little escape of water from the spring above these caves.

500 - Use of Park Facilities by the Public

510 - Increase of Deposits in Travel

The total travel recorded for this month amounted to 182 motor vehicles and 473 visitors as compared with 235 motor vehicles and 777 visitors reported in March, 1933. The total travel to date in recorded as 3,444 motor vehicles and 9,817 visitors as compared with 4,792 motor

vehicles and 12,125 visitors for the same period last year. The travel to date represents a decrease of 25 per cent in motor vehicles and 19 per cent in visitors as compared with last year.

530 - Special Visitors

Kenneth F. MacDonald, former Montana State Game Warden, visited the park for a conference with the Superintendent on March 30.

600 - Protection

610 - Police Protection

Eight men were arrested on March 1 and charged with molesting and attempting to drive elk from within the park to open hunting territory. Charges against five of the men were dismissed. The remaining three plead guilty as charged and were convicted. One man was fined \$50.00 and the other two \$10.00 each.

620 - Fire Protection

The checking station, at the north entrance, caught fire and burned on the night of March 4. The station was occupied by a C.C.C. enrollee at the time the fire started and it is believed that the fire started from a defective chimney. The enrollee did not notice that the building was on fire until almost half of the roof had burned off. Most of the property in the building was saved but the entire structure, with the exception of the masonry walls, was completely destroyed.

900 - Miscellaneous

Post Office - The business in the Post Office at the close of March showed an unusual increase over the preceding month, also a 25 per cent increase over the corresponding month of last year. The March quarter just ending shows about 40 per cent increase over the corresponding quarter of last year.

Church Services - Sunday School continued throughout the month and special Easter Services were held on Easter morning, the children putting on a special program. The usual winter church services were held during the month by Rev. Webster B. Clements, Lutheran Minister from Livingston, and Rev. Lewis D. Smith, Episcopalean Minister from Livingston. Special Easter Services were held in the Chapel on March 28.

Hospital and Medical - Twenty-three home calls and 99 office calls were reported for the month of March.

E.C.W. - E.C.W. activities in connection with work progressed rapidly during the month up to the time the enrollees left for home on March 24. Since that time, with a skeleton camp, cleanup and completion of various jobs were carried on.

vehicles and 12,115 visitors for the year. The total
to date represents a decrease of 55 per cent in motor vehicles and 17 per
cent in visitors as compared with last year.

530 - Special Visitors

Kenneth T. McDonald, former member of the House of Representatives, visited the
park for a conference with the Superintendent on March 10.

500 - Protection

510 - Police Protection

Eight men were arrested on March 1 and charged with violation and
attempting to drive six times within the park to open hunting territory.
Charges against five of the men were dismissed. The remaining three
pleaded guilty as charged and were fined \$50.00 each. The other two
and the other two \$10.00 each.

520 - Fire Protection

The shooting station, at the north entrance, closed this and moved
on the night of March 1. The station was occupied by a C.O.C. employee
at the time the fire started and it is believed that the fire started
from a defective chimney. The employee did not notice that the chimney
was on fire until almost half of the roof had burned off. Part of the
property in the building was saved but the entire structure, with the
exception of the masonry walls, was completely destroyed.

500 - Miscellaneous

Post Office - The business in the Post Office at the close of March
showed an unusual increase over the preceding month, about 55 per cent
increase over the corresponding month of last year. The total number
just making about 10 per cent less than even the corresponding quarter
of last year.

Church Services - Sunday School continued throughout the month and
special church services were held on several occasions. The following list
on a special program. The usual winter church services were held during
the month by Rev. Robert H. Clements, pastor of the First Baptist Church,
and Rev. Louis D. Smith, pastor of the First Methodist Church. Special
church services were held in the Chapel on March 21.

Hospital and Medical - Twenty-three nurse calls and 50 office calls
were reported for the month of March.

E.O.W. - E.O.W. activities in connection with the war effort continued
during the month up to the time the mobilization law took effect on March 24.
Since that time, with a skeleton staff, cleaning and conducting of various
jobs were carried on.

The spike camp located at Tower Falls was moved in on March 9 and the camp at Slough Creek on March 10. The movement of these side camps mark the completion of E.C.W. activities in connection with the elk disposal operations.

An additional mechanic was employed under E.C.W. on March 15 to assist in repairing and overhauling equipment.

The Mammoth Camp is scheduled to move from here to Havre, Montana to occupy S.P. 1 and the Havre Camp is scheduled to occupy the Mammoth Camp Y.N.P. 1 shortly after the first of April.

Word was received during the month that Yellowstone will again be allotted three summer camps for the Ninth Enrollment Period. These camps were requested to be occupied on May 1, May 15 and May 25.

Various changes were made in the Army personnel in the Mammoth Camp during the month.

Various items of surplus equipment were received from Army surplus stock during the month.

Good cooperation was received from the Fort Missoula District during the past winter. We are glad to report that the Mammoth Camp will remain under the jurisdiction of the Fort Missoula District during the coming summer while our three summer camps will be under the supervision of the Pocatello District. This arrangement will be an experiment for a short period of time, in order to determine the feasibility of administering camps in Yellowstone under two districts. We firmly believe that the arrangement allowing the Mammoth Camp to continue under the supervision of one district the year around will work out more satisfactorily for everyone concerned rather than shifting headquarters twice each year.

- - - -

The regular monthly meeting of the Federal Employees' Union, Local No. 465, was held on March 1. Following the meeting old-time dancing and roller skating were enjoyed which was followed by a lunch of doughnuts and coffee.

A Barn Dance, sponsored by the Federal Employees' Union 465, was held in the canteen building on March 20 and was one of the most successful affairs of the winter.

Volley ball, roller skating, chess, pool, and old-time dances were enjoyed throughout the month by members of the community in the canteen building.

Very truly yours,

VG

Edmund B. Rogers,
Superintendent.

The same camp located at Fort 5000 was moved to an area 3 miles
the camp at Fort 5000 on March 10. The movement of these units
mark the completion of the D.O. activities in connection with the
social operations.

An additional specialist was employed under W.D. on March 10 to
assist in reporting and overhauling equipment.

The Harrods Camp is scheduled to move from here to Harrods, Montana
to occupy B.T. 1 and the Harrods Camp is scheduled to occupy the Harrods
Camp Y.M.F. 1 shortly after the first of April.

Food was received during the month from Yellowstone will again be
allotted these units for the month of April. These units
were requested to be occupied on May 1, May 15 and May 22.

Various changes were made in the unit personnel in the Harrods Camp
during the month.

Various items of supplies equipment were received from Army surplus
stock during the month.

Good cooperation was received from the Fort 5000 District during
the past winter. It was glad to report that the Harrods Camp will re-
main under the jurisdiction of the Fort 5000 District during the
coming summer while our three summer camps will be under the jurisdiction
of the Fort 5000 District. This arrangement will be an experiment for
a short period of time, in order to determine the feasibility of adminis-
tering camps in Yellowstone under two districts. We firmly believe that
the arrangement allowing the Harrods Camp to continue under the super-
vision of our district the year around will work out more satisfactorily
for everyone concerned rather than having headquarters twice each year.

- - -

The regular monthly meeting of the Federal Employees' Union, Local
No. 457, was held on March 1. Following the meeting a lunch of doughnuts
and roller skating was enjoyed which was followed by a lunch of doughnuts
and coffee.

A Barn Dance, sponsored by the Federal Employees' Union 457, was
held in the center building on March 20 and was one of the most success-
ful affairs of the winter.

Volley ball, roller skating, chess, pool, and old-time dances were
enjoyed throughout the month by members of the community in the center
building.

Very truly yours,

Edmund B. Rogers,
Superintendent.

10-157
July, 1929)

DEPARTMENT OF THE INTERIOR

NATIONAL PARK SERVICE

TRAVEL REPORT

Yellowstone National Park for the month of March, 1937

	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,	107	1469	261	2512	-1043	-41.5
cars reentry,	82	1969	25	2082	- 113	- 5.4
motorcycles,		6		2	4	200.0
Total motor vehicles,	189	3444	286	4596	-1152	-25.0
persons entering via motor vehicles,	466	9800	732	12080	-2280	-18.8
persons entering via other private transportation,				40	- 40	-100.0
Total persons entering via private transportation,	466	9800	732	12120	-2320	- 19.1
<u>OTHER TRANSPORTATION:</u>						
persons entering via stages, .	12	12	5	5	7	140.00
persons entering via trains, .						
persons entering otherwise, . .						
Total other transportation, .	12	12	5	5	7	140.00
AND TOTAL ALL VISITORS, . . .	478	9812	737	12125	-2313	- 19.0

	This Year	Last Year	Increase	
			Number	Percent
automobiles in public camps during month,				
campers in public camps during month,				

NATIONAL PARK SERVICE

TRAVEL REPORT

National Park for the month of January, 1937

Continued

Increase Percent		Number		This Year		Last Year		Increase Percent	

DEPARTMENT OF THE INTERIOR

NATIONAL PARK SERVICE

REPORT OF PARK REVENUES

Yellowstone

National Park for the Month of

March, 1937

	This Year	Last Year
Park revenue on hand beginning of month,	-0-	-0-
Received,	\$ 99.60	\$1,068.97
Total,	99.60	1,068.97
Remitted,	99.60	1,068.97
On hand close of month,	-0-	-0-

Park revenues received this year to date,	\$348,843.28
Park revenues received last year to date,	275,090.69
Increase,	73,752.59
Per cent of increase,	26.9

DEPARTMENT OF THE INTERIOR

WILSON JAMES SERVICE

7.11.15

1. 1000 to 1500

UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

STATUS OF PERSONNEL

Yellowstone

National Park for the Month of March, 1937

	This Month		This Month Last Year	
	Appointed	Non-Appointed	Appointed	Non-Appointed
Number of employees beginning of month	* 87 Reg. 2 ECW 1	Reg. 15 Reg. 14 PW 4	92	Reg. 12 PW 4
Number of additions		Reg. 29 PW 4	2	Reg. 22
Total	90		94	Reg. 34 PW 4
Number of separations	0	Reg. 13	0	Reg. 7 PW 4
Number of employees close of month	** 90	20	94	Reg. 27 PW 0
Number of promotions during month	0		0	
Aggregate amount of annual leave taken	Reg. 183 ECW 22-6/8		Reg. 68-19/28 ECW 13-1/2	
Aggregate amount of sick leave taken	Reg. 34 ECW 4/8		Reg. 23 ECW 2	
Aggregate amount of leave without pay	0		Reg. 10	

*Includes 77 regular and 10 ECW employees.

**Includes 79 regular and 11 ECW " .

UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

STATE OF TEXAS

National Park for the Month of

This Month		For Month Last Year	
Appointed Non-Appointed		Appointed Non-Appointed	
1	2	1	2
3	4	3	4
5	6	5	6
7	8	7	8
9	10	9	10
11	12	11	12
13	14	13	14
15	16	15	16
17	18	17	18
19	20	19	20
21	22	21	22
23	24	23	24
25	26	25	26
27	28	27	28
29	30	29	30
31		31	
Total		Total	
Average		Average	
Range		Range	
Standard Deviation		Standard Deviation	
Coefficient of Variation		Coefficient of Variation	
Kurtosis		Kurtosis	
Skewness		Skewness	
Jarvis-Berry		Jarvis-Berry	
Shapiro-Wilk		Shapiro-Wilk	
Kolmogorov-Smirnov		Kolmogorov-Smirnov	
Anderson-Darling		Anderson-Darling	
B-P		B-P	
Cramer's V		Cramer's V	
Fleiss-Kappa		Fleiss-Kappa	
McNemar		McNemar	
Nelson		Nelson	
Poisson		Poisson	
Rayleigh		Rayleigh	
Spearman		Spearman	
Stuart-Maxwell		Stuart-Maxwell	
Tartakovsky		Tartakovsky	
Tost		Tost	
Wald		Wald	
Wilcoxon		Wilcoxon	
Yule		Yule	
Z		Z	

Information for the month of 1931
Information for the month of 1931

UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

REPORT OF TELEPHONE AND TELEGRAPH BUSINESS

Yellowstone National Park for the Month of March, 1937

	This Month	This Month Last Year	Increase	Per cent Increase
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LOCAL BUSINESS

Miles of circuit maintained,	600	582	18	3
No. of telephones connected,	253	222	31	14
No. of measured service calls,				
No. of other local calls,				
Total No. of local calls,				
Peak load in calls per day,				

Receipts from measured service calls, . .	
" " coin boxes,	
" " telephone rental,	

TOTAL RECEIPTS

LONG DISTANCE BUSINESS

No. Outbound calls,	
No. Inbound calls,	

TOTAL LONG DISTANCE CALLS

Peak load in calls per day,	
Receipts from Long Distance business, . .	

TELEGRAPH BUSINESS

Messages via Western Union,	
Messages via	

TOTAL MESSAGES

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

TOTAL RECEIPTS TELEPHONE & TELEGRAPH DEPTS.

UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

RECEIVED BY THE NATIONAL PARK SERVICE

DATE: 1954

RECEIVED BY THE NATIONAL PARK SERVICE

RECEIVED BY THE NATIONAL PARK SERVICE

DATE	TO	FROM	AMOUNT	REMARKS
1954	TO	FROM	AMOUNT	REMARKS
1954	TO	FROM	AMOUNT	REMARKS
1954	TO	FROM	AMOUNT	REMARKS

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Yellowstone National Park

(Area)

Minor Roads and Trails Projects

Total Mileage for Area:

Minor Roads.....	Miles
Trails.....	Miles

Proj. No.	Description of Project	Type of Work	Mile- age of Proj.	% Com- plete	Appropria- tion Symbol	Amount Allotted	Amount Expended	Remarks
		No Minor Roads and Trails Projects active.						



UNITED STATES
DEPARTMENT OF THE INTERIOR
National Park Service
Yellowstone National Park
Yellowstone Park, Wyoming

March 1, 1937

CIRCULAR NO. 5

TO ALL EMPLOYEES:

SAFETY PROGRAM AND ORGANIZATION

For the purpose of reducing the number of accidents and injuries to National Park Service employees while in any way connected with government property or while engaged in official work, and to reduce the number of accidents in which government property is involved, the following Safety Program for Yellowstone National Park will become effective March 1, 1937.

The Safety Committee will function as a body to determine methods of reducing accidents and injuries in which only government employees and equipment are involved, and their investigations and reports will be in addition to and independent of regular ranger investigations and reports.

NOTE: In cases where drivers of government vehicles are involved, it is necessary, as heretofore, that the driver fill out the regular "Driver's Report---Accident" form No. 26 and deliver it promptly to his immediate superior; and, IN ADDITION, a separate report must be made on the "Accident and Injury" form adopted by the Safety Committee, a copy of which is attached to this circular and a supply of which will be furnished all heads of departments for the use of their foremen or employees.

In cases noted above, the regular investigating officer will be required, as heretofore, to fill out Standard Form No. 27, "Investigating Officer's Report--Accident", independent of investigations and reports required by the Safety Committee.

Strict compliance with all provisions of this Safety Program is required of all National Park Service employees.

THE SAFETY COMMITTEE

The Safety Committee will:

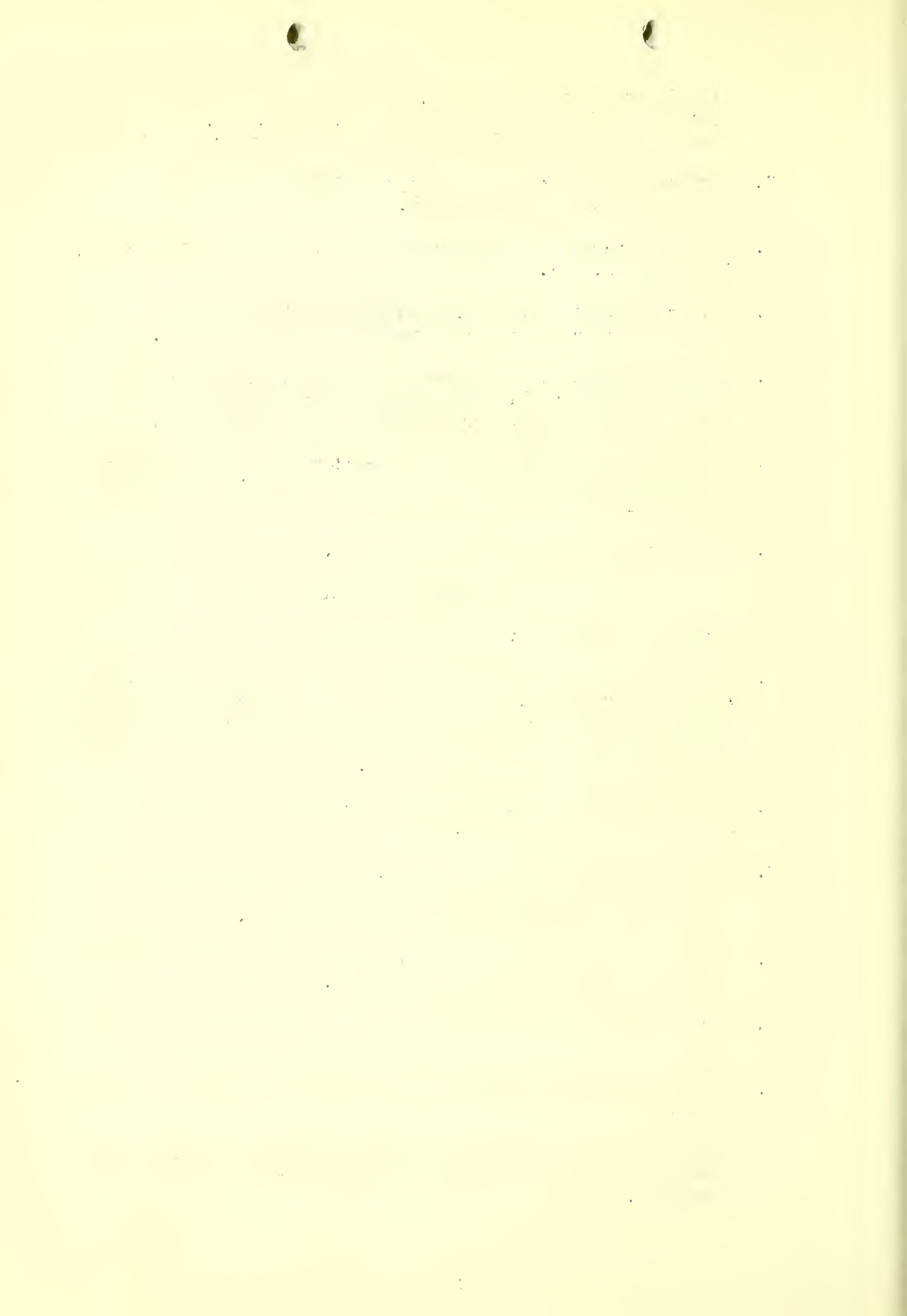
1. Conduct a safety education and training program.
 - (a) Adopt and issue a manual of general safety rules.
 - (b) Issue instructions, posters, etc., pertaining to safety.

- (c) Conduct safety meetings.
 - (d) Make safety talks in road camps, shops, etc.
 - (e) Conduct other safety and first aid training activities.
2. Make safety inspections of shops, buildings, and work projects when deemed necessary.
 3. Furnish department heads with manual of general safety rules, instructions, etc.
 4. Require complete reports from department heads of all accidents prepared on forms provided for this purpose.
 5. Analyze accidents, determine, if possible, the nature and cause, fix responsibility, and make recommendations which shall tend to minimize or eliminate similar accidents.
 6. Prepare for the Superintendent a condensed monthly summary of all reported accidents and injuries involving government employees.
 7. Keep records of all safety activities.

THE DEPARTMENT HEAD

The Department Head will:

1. Thoroughly acquaint himself with the manual of General Safety rules, instructions, etc., as issued by the Safety Committee, and furnish his foremen or others under his direct supervision with these rules and instructions and call to their attention any unsafe or hazardous conditions.
2. Be responsible for successfully carrying out the Safety Program in his department.
3. Satisfy himself that the foreman, or others under his direct supervision, thoroughly understands the rules, instructions and other requirements of the Safety Program.
4. Shall forward promptly to the Safety Committee all reports of accidents occurring in his department.
5. Discuss accidents and their prevention with his foremen and crews.
6. Give necessary authority to his foremen to enforce all safety rules.
7. Submit a written report to the Safety Committee of any unsafe working conditions, including equipment or unsafe working practices.



THE FOREMAN

The Foreman will:

1. Familiarize himself with and enforce all safety rules.
2. Explain safety rules to all of the men in his crew and instruct each man regarding the safe way of doing his work, stressing special hazards to be avoided.
3. See that men get first aid treatment immediately for all injuries.
4. Investigate all accidents and make a written report to the head of his department of each accident, on the regular form provided for this purpose, showing extent of injury, cause, etc., and suggest method for prevention of similar accidents.
5. Attend all required safety meetings.
6. See that all of his equipment is in safe working condition.
7. Display safety regulations, instructions, posters and warning signs furnished by the Safety Committee.
8. Report to his department head any unsafe working conditions, including equipment or unsafe working practices.

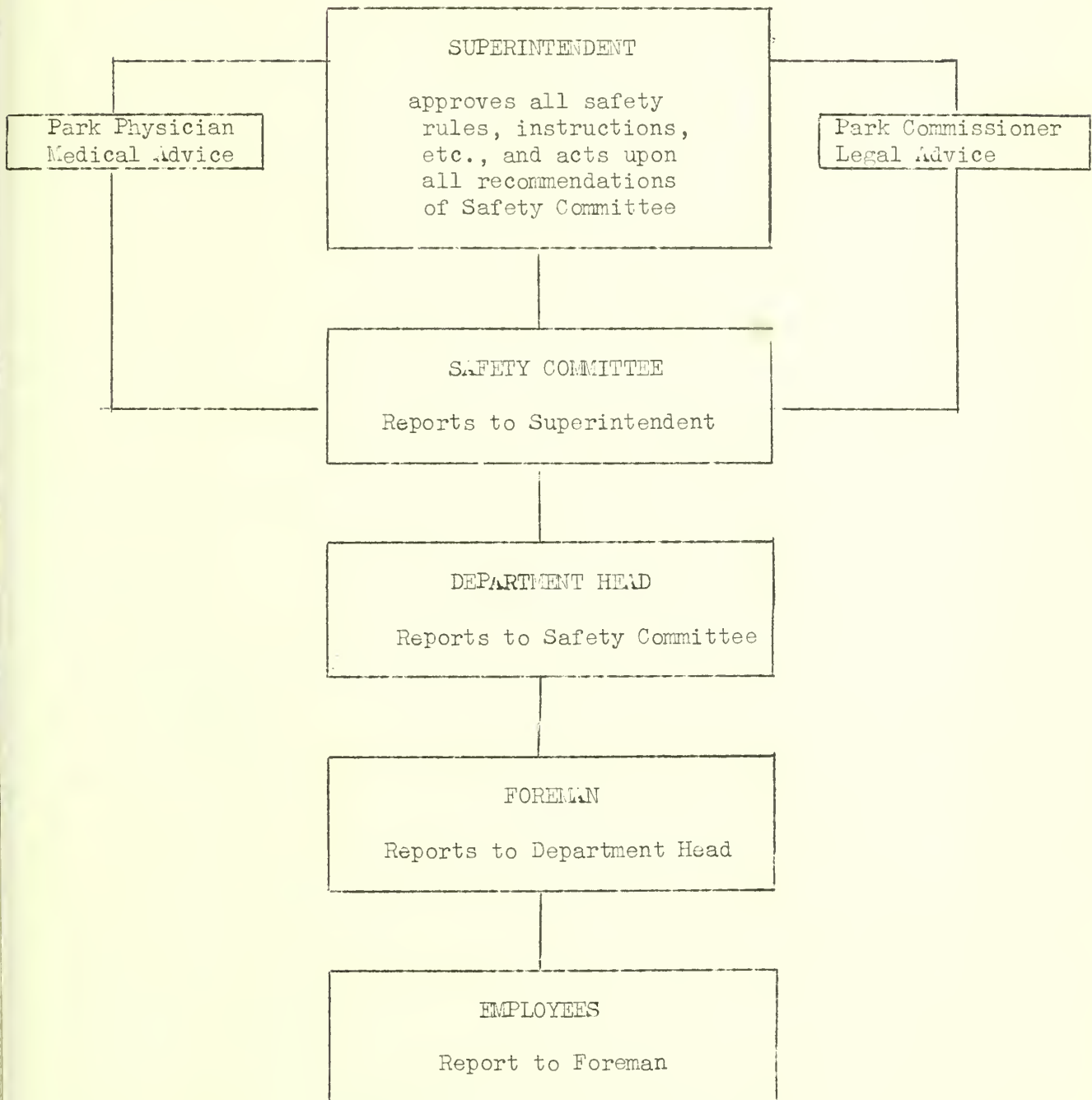
THE EMPLOYEES

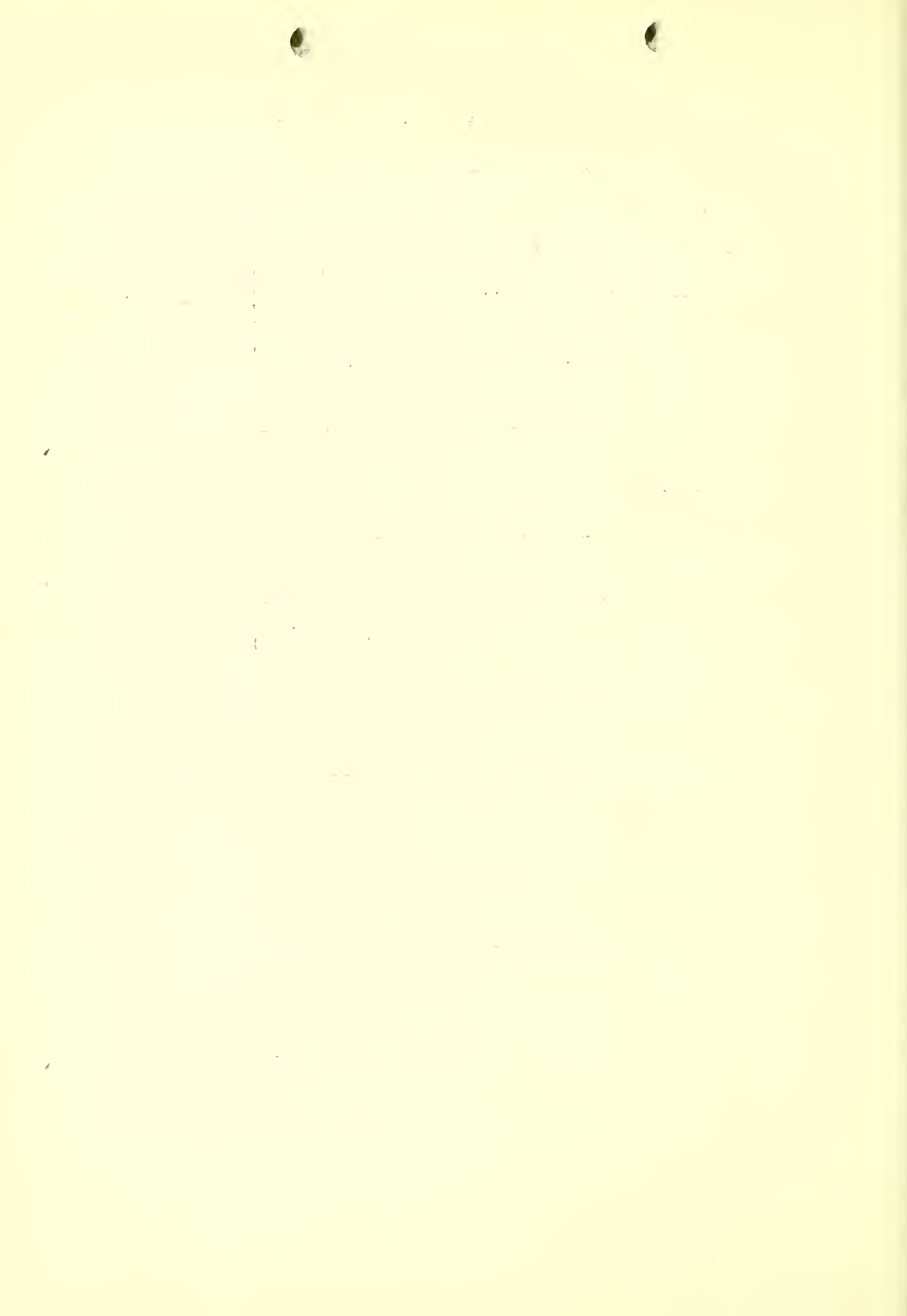
Each employee will:

1. Obey strictly all safety rules.
2. Get first aid treatment immediately for all injuries.
3. Report to his foreman all accidents immediately.
4. Report to his foreman any unsafe working conditions, including equipment or unsafe working practices.

Edmund B. Rogers
Superintendent

YELLOWSTONE NATIONAL PARK
SAFETY PROGRAM ORGANIZATION CHART





EMPLOYEE'S ACCIDENT AND INJURY REPORT

(For Safety Committee)

Date _____

Name of Employee: _____

Date & Time of Accident: _____ Place: _____

Nature of Accident or Injury _____
And Damage to Property _____

Cause of Accident or Injury _____
(If carelessness of another
was involved, so state) _____

How Can Similar Accidents
Be Avoided? _____

Was Time Lost by Employee?	
Time Employee	Time Employee
Stopped Work _____	Resumed Work _____

SIGNATURES OF TWO WITNESSES: 1. _____

2. _____

SIGNED: 1. _____, FOREMAN

2. _____, DEPARTMENT HEAD

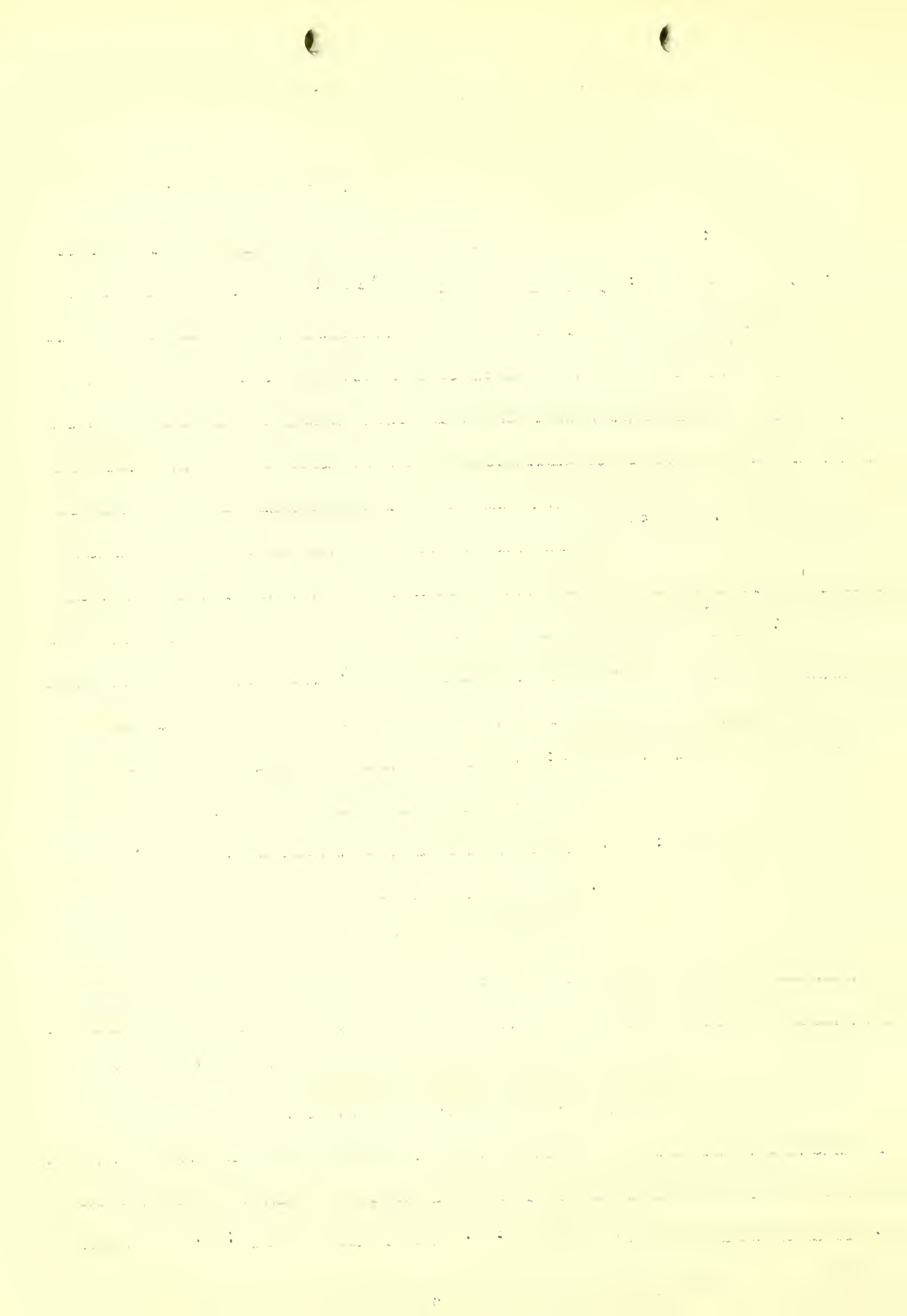
STATEMENT OF PARK PHYSICIAN
(To be made in case of serious injury)

SIGNATURE _____, PARK PHYSICIAN

RECOMMENDATIONS OF SAFETY COMMITTEE

1. _____, Chairman : 2. _____ : 3. _____

(For additional details use reverse side of this sheet)



UNITED STATES
DEPARTMENT OF THE INTERIOR
National Park Service
Yellowstone National Park
Yellowstone Park, Wyoming

March 11, 1937

CIRCULAR NO. 6

TO ALL EMPLOYEES:

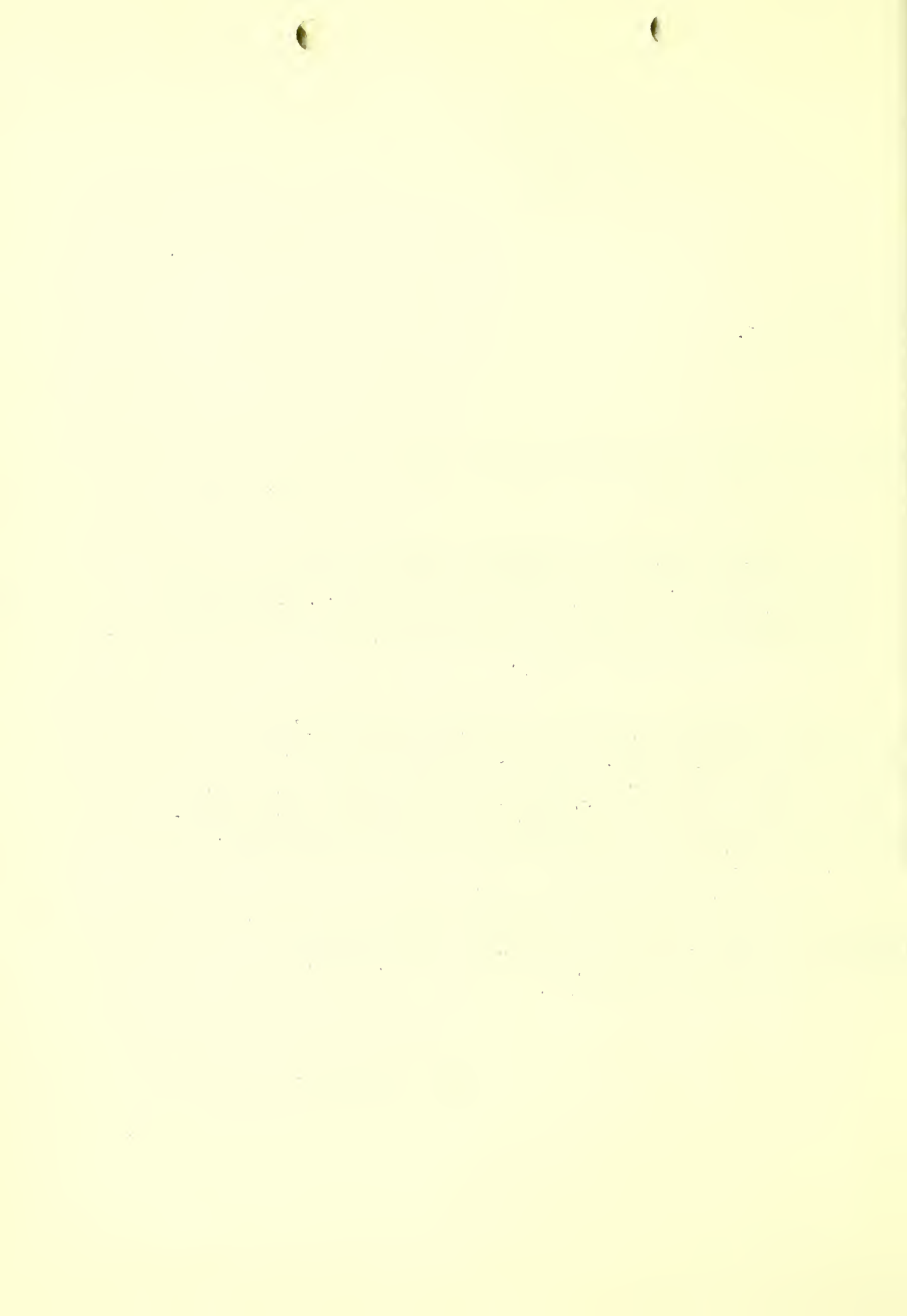
Instructions have just been received from the Washington Office with regard to the method of handling ice deliveries at Yellowstone National Park. The pertinent paragraph of their letter is quoted as follows:

"Examination of the descriptions of quarters at Yellowstone discloses that in no instance was the furnishing of ice considered in approving the appraised values of quarters. Accordingly, ice furnished employees should be charged for at the cost price plus transportation and handling and appropriate payroll deductions made to cover the cost thereof."

In compliance with these instructions Mr. Holman will make the last ice delivery on Friday, March 12. Beginning Tuesday, March 16 and thereafter until further notice, the ice house will be kept open each Tuesday and Friday afternoons from 5 until 5:30 p.m. so that employees may purchase the amount of ice they need. The rate charged will be 25¢ per 100 pounds. The sale of ice will not be made except at the time and date specified. Under this new procedure the employees will arrange for their own deliveries from the ice house to their respective quarters.

From time to time we are receiving shipments of surplus electrical refrigerators from the Federal Housing Administration. It is planned to equip all permanent family quarters with electrical refrigeration facilities as rapidly as these units arrive.

Edmund B. Rogers,
Superintendent.



UNITED STATES
DEPARTMENT OF THE INTERIOR
National Park Service
Yellowstone National Park
Yellowstone Park, Wyoming

March 16, 1937

CIRCULAR NO. 7:

Your attention is directed to Office Order No. 337, setting forth regulations for the standard National Park Service uniform. A part of this order is quoted as follows:

"The fundamental purposes of the uniform are to symbolize the National Park Service and to identify the wearer to park visitors. Accordingly, its use must be limited to the Service field personnel whose chief duties are to contact visitors and to protect the parks and monuments. The Director, however, may approve specific exemptions with respect to the wearing of the uniform.

"The following officials and employees of the National Park Service, whether permanent or temporary, shall wear the standard uniform when assigned to duty in any of the national parks, military parks, historical parks, national monuments, and other areas open to visitors:

"Superintendents, assistant superintendents, custodians, rangers, naturalists, ranger-naturalists, military park guards, museum attendants, Hot Springs National Park policemen, and other national park and national monument employees whose duties are chiefly to contact park visitors and to protect the areas administered by the National Park Service.

"The uniform is not to be worn by an official or employee when he is not in a duty status.

"Emergency Conservation Work and other emergency employees, when assigned to regular public contact service shall wear the uniform, when specifically authorized by the Director.

"No other employees of the National Park Service, including guards and policemen in the National Capital Parks and guards in the Branch of Buildings Management, shall wear the standard uniform prescribed by this Office Order.



"ECW supervisory personnel shall wear the authorized ECW uniform. Other temporary employees or members of other branches of the National Park Service may wear any special uniform authorized by the Director, but shall not wear the standard uniform or insignia prescribed for permanently appointed or regular National Park Service officials and employees."

It will be noted from the above that the Superintendents, Assistant Superintendents, Rangers, Naturalists, and Ranger Naturalists in Yellowstone National Park are required to wear the standard uniform when on a duty status. In addition we have received authority from the Director for all department heads, the Chief Buffalo Keeper, and the driver of the Superintendent's official car to wear the standard uniform. This, however, will be optional with the department heads and the Chief Buffalo Keeper. All employees wearing the standard uniform will be required to comply with the regulations prescribed in Office Order No. 337.

It is realized that a number of employees own whipcord uniforms which are still serviceable. Uniforms of this material may be worn during post-season and pre-season periods from October 1 to June 1. The regulation elastique uniform will be required during the period from June 1 to September 30, inclusive.

All employees who are required or authorized to wear the standard National Park Service uniform will be furnished a copy of the new uniform regulations, as prescribed in Office Order No. 337. Additional copies of this Office Order are available at the Chief Ranger's Office.

Edmund B. Rogers
Superintendent



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

March 24, 1937.

CIRCULAR #8

The change of winter assignment for Park Ranger Lee Coleman, from Hellroaring Ranger Station to Park Headquarters at Mammoth, is hereby announced to become effective immediately.

Edmund B. Rogers
Superintendent

MANUAL OF
GENERAL SAFETY RULES
FOR GOVERNMENT EMPLOYEES
IN
YELLOWSTONE NATIONAL PARK
- - - 1937 - - -

Prepared by:

Yellowstone National Park
Safety Committee
R. R. Robinson, Chairman
Deate White
Curtis K. Skinner

Approved by:

Edmund B. Rogers
Superintendent

MANUAL OF GENERAL SAFETY RULES

INTRODUCTION

In order to reduce the number of accidents which result in injury to National Park Service employees or damage to Government property and equipment, this Manual of General Safety Rules has been prepared and adopted for use in Yellowstone National Park.

It is by no means presumed that the safety rules outlined herein form an infallible guide to safe working or living practices or that strict observance of all of the following precautionary measures will result in the total elimination of accidents.

Avoidance of accident or injury is, to a large extent at least, a matter of common sense requiring no other rule than that of protecting yourself and your fellow companions or workers from bodily injury and of your employer (the Government) from damage to property or equipment.

In the field of experience nearly all of us have had occasion to remark: "I should have known better!" "It was all my fault." Or, "I felt that something would happen if I did that!" Exercise of caution and a determined unwillingness to trust all to chance will eliminate many accidents of the all too common type which are simply due to carelessness.

A matter of first importance in any safety program is that of making each individual aware of the necessity for being careful. In other words, every individual must become "safety conscious" before any marked reduction in the number of common accidents can be accomplished.

It is hoped that the material in this manual will serve as an outline and guide for safe practices. Many special working or living hazards have, necessarily, been omitted, and it is likely that some have been dealt with all too briefly. It is anticipated, however, that each employee will develop an interest in and appreciation of safety factors pertaining to his own working and living conditions and that each will feel free to submit suggestions for their improvement. This manual will be revised from time to time, as need arises, and any suggestions which will aid in reducing accidents will be included.



Acknowledgments

In the preparation of this manual, valuable suggestions have been obtained and some material has been used from the following sources, the use of which is hereby acknowledged:

"General Safety Rules" of the United States Navy Yards and Naval Stations, "Safety Division Regulations" of the Civilian Conservation Corps, and numerous pamphlets published by the "Department of Safety, Industrial Accident Commission" of the State of California.

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MANUAL OF
GENERAL SAFETY RULES

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I. MOTOR VEHICLES

1. All motor vehicle drivers shall be familiar with and must strictly observe all Yellowstone Park automobile regulations, including special speed limit, stop, and other regulatory highway signs. When traveling outside Yellowstone Park drivers will observe all state laws.
2. Drivers must keep to the right of the center line of the highway at all times, except when overtaking or passing another vehicle. There shall be no passing on blind curves, hills, or any other place where the clear view ahead is obstructed. Travel at a safe distance behind when following another vehicle.
3. Vehicles broken down on the highway must be protected at night in front and rear with flares and by red flags in daylight. In case the vehicle is involved in an accident of any kind, it shall not be moved until the accident has been investigated by an investigating officer and until a complete report has been made out by the driver of the Government vehicle. In case of accident, flag the highway, notify the nearest ranger station, and render aid in emergency. IN EMERGENCIES WHERE PERSONS ARE INJURED IN AN ACCIDENT OR WHEN THE HIGHWAY IS ENTIRELY BLOCKED, THE VEHICLE MAY BE MOVED TO PERMIT PASSAGE OF CARS AND, IF NECESSARY, USED TO TRANSPORT THE INJURED OR TO SECURE NEEDED AID. This is an exception to the general rule and the exercise of good judgment is necessary.
4. Trucks should be inspected daily as to physical defects; such as faulty brakes, bad lights, etc. Any unsafe condition must be reported at once to the immediate superior. No equipment shall be operated if in an unsafe working condition.
5. Give animals the right-of-way. They do not obey traffic rules.
6. Exercise caution when backing. The responsibility is all yours.
7. Driving while under the influence of intoxicants is prohibited.
8. Personnel riding on trucks must not be permitted to hang their legs over the side or rear of the truck. No person shall be permitted to ride on trucks or other vehicles unless they are directly connected with the work project to which the motor vehicle is assigned or unless authorized to do so by the foreman, department head, ranger or other proper authority.
9. Riding on fenders, bumpers, running boards and cab top is prohibited. Standing up in moving trucks must be discouraged wherever possible. No one must be permitted to jump on or off any vehicle while it is in motion.



II. EYE PROTECTION

1. Goggles must be worn when grinding, chipping, handling molten metal or acid, "busting" rivets or bolts, or when doing other work where there is danger of chips or splashes entering the eye.
2. Do not permit the use of hammers, mallets, wedges, chisels or other such tools on the job with mushroomed or burred heads.
3. Goggles must be worn when the work requires the use of oxy-acetylene gas torches, electric torches or other welding devices. These goggles must be light proof.

III. SCAFFOLDING & LADDERS

SCAFFOLDS:-

1. All scaffolds should be built of sound, long-fiber material, free from large knots and other imperfections.
2. Scaffolds should be erected and taken down by experienced men. They should be inspected frequently and when taken down should have all nails withdrawn.
3. Men should not be allowed to throw anything from scaffolds except on signal from lookout below that way is clear.
4. No one should jump on a scaffold or allow material to be dropped on it.
5. Scaffolds should be cleaned daily of all rubbish, and no tools, buckets, etc., should be left on them when workmen leave. In winter, all snow and ice should be removed before starting work.
6. Safe means of access, either by stairs, ladder or platform should be provided.
7. Floor planks must not project more than 6 inches beyond cross beams causing them to tip when stepped upon.
8. Scaffolds should be protected against injury from trucks or wagons striking them or dumping material against them.
9. When hoisting, loads should not be permitted to swing against or catch on scaffolds.



10. Men should not be permitted to work or walk under scaffolds unless protected.
11. Everyone going upon any scaffold should satisfy himself of its safety.
12. Scaffolds more than 15 feet high must have guard rails on the outer edge. These rails should be constructed of 2" x 4" material and be nailed securely to the uprights 42 inches above the platforms.
13. No one should be allowed to hang tools on any part of a scaffold.

LADDERS:-

1. The too general use of ladders should be discouraged.
2. They should be built substantially, set level, and well secured.
3. Rails of ladders should always project at least 3 feet above floor level.
4. Ladders should not be painted, as painting covers up defects -- linseed oil should be used instead.
5. Portable ladders should have non-slipping bases.
6. Defective ladders must be repaired or turned over to the Storehouse.

IV. TOOLS

1. ADZ -- The adz must be checked for weak or broken handles. It is, of necessity, a sharp tool and must be handled with the greatest of care.
2. AXES -- Axes must be checked for broken or loose handles. Axes must not be wired or covered with tape to cover splits. Accidents in the use of axes and other sharp edged tools are frequently due to workmen having them laying about where they are stepped on or struck against. A good practice is to drive the tool, when not in use, in a block of wood so that the cutting edge is embedded. Double Bitted Axes Are, However, An Exception to This Practice, since when one edge is stuck in a block the other cutting edge presents a very serious hazard. These tools should be laid flat on the ground and in a protected place where there will be the least likelihood of anyone stumbling into them.



3. JACKS -- Jacks must be inspected for the safe condition of screws and the two ends that rest against materials to make sure that they are not bent over or rounded. Due care must be taken to use jacks of sufficient strength. A piece of sound wood placed between the head of the jack and the load is good practice to prevent slipping. Improper centering of the load upon the jack often causes the jack to kick out, resulting in serious injuries. Care must be taken that hands and feet are in the clear when a jack is released. No one should ever get under a heavy object supported only by jacks. Blocks of sufficient strength should be placed under the object before underneath work is attempted.
4. PICKS -- Picks must be kept pointed up and checked frequently for flaws and cracks. Pick handles should fit tightly into pick heads. Some severe injuries have occurred when the head of the pick, at its highest point over the workman's head, has slid down the handle and struck his head or pinched his fingers. Picks with split handles should never be used.
5. ROPES -- Rope tackle must be inspected for worn, rotted or cut sections, cracked or broken pulley blocks, and cracked, bent or stretched hooks. Ropes should not be left on the ground but should be hung up to air when not in use to prevent dry rotting. Chain falls should be inspected frequently for defects.
6. SAWS -- Cross-cut saws must be kept sharp. In transporting on trucks, etc., the teeth must be provided with a guard.
7. SLEDGES -- The face of the sledge must be kept squared up and the head securely fitted to the handle. It must not be allowed to become mushroomed.
8. CROWBARS -- Bars must be kept straightened; points must be kept pointed up and properly tempered.
9. STEEL WEDGES -- (Drifts) -- This steel bar, pointed at one end, is used for various purposes, is generally struck on the end by a sledge in the hands of another worker. Mushroomed heads must be squared up before using. Wedges must be checked for cracks and flaws.
10. WHEELBARROWS -- Wheelbarrows must be fitted with firm, sound handles; foot braces should be firm, and wheel and wheel shaft bearings shall be checked for excessive wear.
11. SHOVELS -- It is important that every shovel be fitted with good, strong, smooth handles, so that workmen will not have their hands cut by splinters in the handles. Shovels should not be left laying about the job where they will trip workmen or be bumped against and possibly cause cuts to feet and ankles. They should be carefully stacked in a protected place or stored in a tool box or shed when not in use.



12. TRANSPORTATION OF TOOLS -- Special care must be taken when men and tools are transported in the same truck. Sharp edged tools must be guarded or placed in a manner so that they will not cause injury to workmen.

V. SHOPS AND MACHINERY

1. Guarding of Power and Transmission

All connecting rods, cranks, flywheels, shafting, spindles, pulleys, belts, link bolts, chains, ropes and rope drives, gears, sprockets, friction drives, cams, couplings, clutches, counterweights, revolving or reciprocating parts, up to but not including point of operation; also all bolts, keys, set screws, oil cups, or similar projections shall be properly guarded. Where questions arise as to the necessity of guarding of specific devices, the matter shall be decided by the Safety Committee.

2. Operating Rules

- (a) GENERAL: - All power transmission equipment shall be inspected by the department head or foreman at intervals not exceeding 60 days and be kept in good working condition at all times.
- (b) SHAFTING:- Shafting shall be kept in alignment, free from rust and excess oil or grease.
- (c) BEARINGS:- Bearings shall be kept in alignment and properly adjusted.
- (d) HANGERS:- Hangers shall be inspected to make certain that all supporting bolts or screws are tight and that supports of hanger boxes are adjusted properly.
- (e) PULLEYS:- Pulleys shall be kept in proper alignment to prevent belts from running off.

Both driving and driven pulleys carrying a non-shifting belt should have crowned faces.

Cast-iron pulleys should be tested frequently with a hammer to disclose cracks in rim or spokes. It should be borne in mind that the sound is usually much different if the belt is or is not on the pulley.

Split pulleys should be inspected to ascertain if all bolts holding together the sections of the pulley are tight.



- (f) CARE OF BELTS:- Quarter-twist belts when installed without an idler can be used on drives running in one direction only. They will run off a pulley when direction of motion is reversed.

Inspection shall be made of belts, lacings, and fasteners, and such equipment kept in good repair.

When possible, dressing should not be applied when belt or rope is in motion; but, if this is necessary, it should be applied where belts or ropes leave pulley, not where they approach. The same precautions apply to lubricating chains.

The hazard of static electricity from belts shall be carefully considered where explosives, explosive dusts, flammable vapors, or flammable liquids exist.

NOTE: Static electricity may be removed from belts by means of metallic flexible-tooth combs the same width as the belts. One comb should be placed within 10 inches of the line of contact where the belt leaves each pulley or flywheel. These combs should be in contact with and placed transversely to the belt and also be well grounded with No. 12 insulated copper wire. The teeth of the comb should point in the direction of the belt motion. Other effective methods, approved by the Safety Committee, may be used.

- (g) BELTS ON OVERHEAD PULLEYS:- A belt pole should be used to throw off or put on belts.

In unshipping a belt it should always be thrown off the driving pulley, not the driven. This should be done by an experienced man.

Belts should not be allowed to run on shafting, but should be held from same either by loop or belt perch.

- (h) LUBRICATION:- In oiling moving parts, tight fitting clothing should be worn and cans with long spouts should be used to keep hands out of danger.

Machinery shall be ciled when not in motion, wherever possible.

- (i) The area around operating heads should be kept clear of parts, materials, trash, litter, etc., and the floor should be kept clear of grease or other slippery substances.

3. General Safety Precautions

- (a) BROKEN PULLEYS:- Pulleys with small pieces broken out of rim shall not be used. The rough edges formed by pieces broken out of pulley rim offer a decided hazard in case anyone should come in contact with the rough edge of the pulley rim. Considerable unnecessary wear on the belt is also caused.



(b) BELT TIGHTENERS:- Belt tighteners of the suspended type shall be arranged in such a way as to prevent falling on a person below should the belt break or throw tightener. This can be accomplished by securely fastening cables or chains of sufficient strength to the tightener and to the roof, or some substantial object above, to prevent tightener from falling far enough to strike a person.

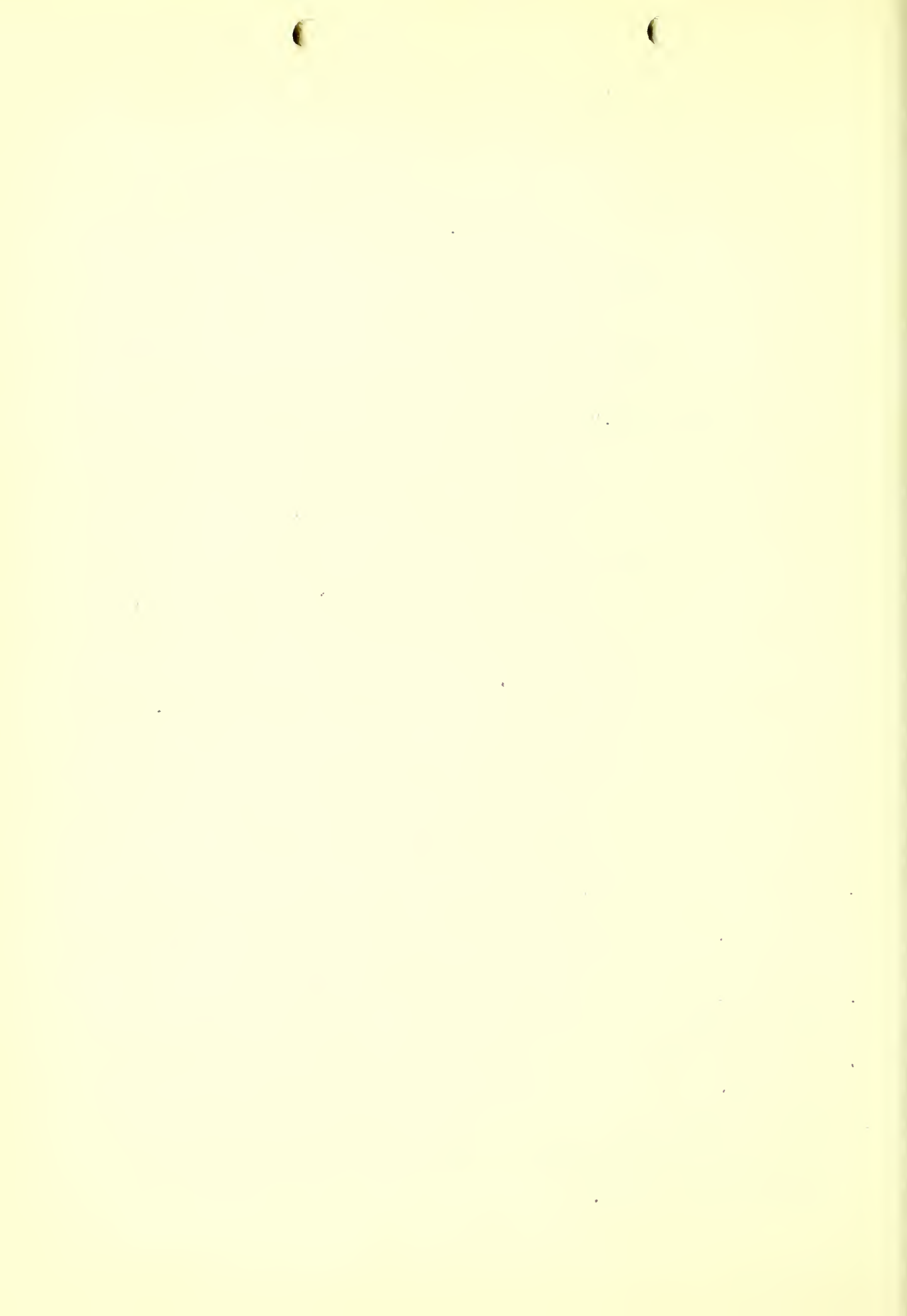
(c) POWER CONTROL:- Among the methods used for power control may be mentioned motor switches, friction clutches, belt shifters and engine stops.

It is advisable to mark the stop station with a mark easily distinguishable - green bands on posts and green circles on walls are recommended, together with a sign "Stop Station" or "Emergency Stop." A light of characteristic color should be added in shops where night work is carried on. All electrical safety devices should operate by the opening of a normally closed circuit. It is advisable to test such devices daily by shutting off the power at noon or night by such means.

(d) HORIZONTAL OVERHEAD BELTS:- Horizontal overhead belts more than 7 feet above the floor or platform, under certain operating conditions, offer a decided accident hazard in case they break. Any belt transmitting power is subjected to a certain stress which increases with the load and the speed. In case this belt breaks, the resultant whipping force is often sufficient to cause considerable damage. The question of guarding such belts in specific instances must be given serious consideration.

VI. EXPLOSIVES

1. HANDLING OF EXPLOSIVES -- The use of explosives on any work project is permissible only when at least one man in the crew is thoroughly qualified, by experience and training, to direct and supervise the handling, storage, transportation and use of explosives.
2. SMOKING -- Smoking by any individual while handling powder or blasting caps is prohibited.
3. FROZEN DYNAMITE -- No powderman shall attempt to use dynamite that is frozen.
4. WARNING SIGNALS -- An audible warning signal or shout shall be given both before and after blasting with sufficient interval to permit persons to reach sheltered places and to announce that no further shots are to be fired.



5. EXAMINATION AFTER BLAST -- Careful examination of all blasts must be made after blasting and if any unexploded materials are found these shall be refired before work proceeds.
6. MISFIRES -- In the event of misfires, where fuse is used, no individual is permitted to return to the vicinity of the charge until at least one hour of time has elapsed. If explosives are burning in the hole, no individual shall return to the vicinity of the blast until at least 12 hours have elapsed, after all smoke or other evidence of burning have ceased.
7. TAMPING -- Tamping with other than a light, smooth, squared end, wooden rod is specifically forbidden.
8. HOT HOLES -- Do not load a hot hole. Allow hole to cool for 10 minutes after firing springer shot.
9. Do not use metal of any kind to puncture dynamite for insertion of cap. Use awl or blade made from hardwood.
10. Do not use teeth or knife to crimp cap around fuse. Use regular crimper made for that purpose.
11. Do not break dynamite in pieces. Unroll from paper.
12. Do not put hands to head after handling dynamite. Will cause severe headache.
13. Do not use fuse at any place where there is danger from hikers walking out of brush or trees. Use electric battery.
14. Do not leave electric battery connected to firing wire. Carry back to where you are working until ready for firing.
15. Do not come out from shelter for three minutes after firing of shot. Time is required for flying rock to fall back to earth.
16. TRANSPORTATION -- Under no condition should men other than the truck driver and one additional man be allowed to ride on a truck on which explosives or detonators are being transported. Do not transport explosives in the same truck with detonating caps, or with steel or iron tools, matches or other flame producing materials that can cause a spark, or with materials that are flammable or otherwise unstable. Do not expose to hot sun in transportation. No person while smoking or while under the influence of intoxicating liquor shall ride upon, drive, load, or unload a vehicle carrying explosives.



VII. FLAMMABLE LIQUIDS

1. WASHING -- The use of gasoline or any other flammable liquid having a flash point of Zero F., or higher, for washing of machine parts, woodwork, clothes, hands, etc., is specifically prohibited within or near any building. For washing of machine parts within buildings, Stoddard Solvent or some equally safe cleaning liquid should be used.
2. STORAGE -- Small quantities of high-test or other gasoline must not be stored in any heated building, except in approved gasoline storage houses heated by steam or other approved heating apparatus.

Gasoline used for lamps and lanterns should be kept in tightly capped containers and preferably stored in a ventilated and isolated structure whose burning would not endanger other buildings or employees.

3. LAMPS AND LANTERNS -- Filling of lamps, lanterns or any other gasoline burning appliances must not be done within any building containing a source of open flame heat.

Filling of any appliances during other than daylight hours should be avoided. If it is necessary to fill gasoline appliances at night, an electric flashlight should be used, or, where electric current is available for lighting, a vapor-proof globe protecting the light globe should be installed.

4. USE OF LAMPS AND LANTERNS -- Filling caps and air valves on gasoline lamps, lanterns, and other appliances should not be opened while the appliance is resting on a table cloth, paper, or other combustible material. Instead, the appliance should be placed upon a metal base of large enough dimensions to catch any spilled liquid when pumping, adjusting or lighting such appliance.

VIII. ELECTRICITY

1. When electrical extensions, alterations or repairs are needed, only authorized Park Service electricians shall be allowed to do the work.
2. Periodical inspection must be given to electrical utilization equipment of all kinds by the responsible foreman or department head and any needed repairs should be obtained through the proper channels.



3. Electric lamp cords should not be hung over iron nails or other metal objects. Do not tamper with appliances or other electrical equipment.
4. Badly worn or otherwise defective extension or utility electric cords should not be used.
5. Avoid handling electrical cords and devices with wet hands and do not use electrical equipment adjacent to water, water pipes, or in damp places unless special precautions have been taken.
6. In case of electrical shock, the victim should be freed immediately, from contact, using some non-conductive substance, and the Schaefer prone pressure method of resuscitation applied immediately.
7. All radio antenna lead-in wires must be protected by a standard lightning arrester properly grounded.

IX. GENERAL PRECAUTIONS

1. MATERIALS -- Accidents are often caused by the improper piling and placing of materials.

All materials should be so piled that persons working or walking will not stumble or fall, suffering an injury.

Loose boards containing nails should be piled with the nails toward the ground until the nails are removed to avoid serious accidents due to persons stepping or falling upon them. All nails should be removed from boards as soon as possible.

Loose wire should not be left where there is a likelihood of persons stumbling into it.

2. "WATCH YOUR STEP" -- Failure to look where one is walking often causes accidents. The feet should be liften in walking rather than shuffled along, and if a person keeps his eyes on the ground ahead, accidents from this cause will be avoided.
3. FALLING OBJECTS -- Many accidents are caused by falling objects, such as loose tools and boards falling from buildings or scaffolds or into pits and wells, rocks falling from cliffs, ledges, banks, etc.

When working in the woods, care must be taken to avoid injury from falling trees, snags and branches.

Employees engaged in fighting forest fires must be constantly on the alert for falling trees and snags. Greatest danger lies in trees



and snags which have been burned around the base or at points along the trunk and which may fall suddenly with little or no warning.

4. FALLS OF PERSONS - A large percent of all injuries is caused by falls of persons, due to slippery conditions, faulty equipment, improper lighting, haste, carelessness, etc. A proper regard for dangerous conditions will aid in reducing such accidents or injuries.
5. HANDLING OBJECTS -- The handling of any object, but especially of heavy objects, should be undertaken with appreciation for the dangers involved. Sharp or pointed equipment, material, or objects, present a hazard from danger of cuts or other injuries. Lifting of heavy objects, often improperly attempted, may result in sprains, torn muscles, crushed feet or fingers, etc.
6. EXCAVATION -- Some serious accidents are due to lack of proper precautions during the excavation of trenches, gravel pits, basements, etc. The possibility of cave-in should be carefully considered before work is begun in any excavation, and employees should exercise special precaution where there is danger of falling dirt, rocks, walls, etc.



U. S. DEPARTMENT OF AGRICULTURE, WEATHER BUREAU.

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

MARCH, 1937.

The mean temperature in March averaged only .2° below normal for the month; the highest was 55° on the 5th and the lowest -4° on the 26th, an average month for temperature extremes.

There were 5 clear days, 7 partly cloudy and 19 cloudy days in the month. Sunshine was recorded for 62% of the possible daylight hours. The number of days on which the lowest temperature reached zero or below in the last five months is: 2 days in November, 7 in December, 20 in January, 3 in February and 2 in March. The first day to reach zero this season was November 2 and the 34th day was March 27th.

All precipitation for March occurred as snow; a trace or more fell on 19 days and .01 inch or more (melted depth) fell on 14 days. The total March snowfall was 21.3 inches compared to a normal of 14.4 inches. The total snowfall thus far this cold season is 85.7 inches or 10.3 inches above normal. The snowfall this month when melted gave 1.34 inches precipitation. This is .35 inch above normal. The density of the snow was .06 inch water to one inch snow; 15.9 inches snow made one inch of water.

At the end of the month approximately one inch of snow remained on the ground; all south slopes were bare and much of the level ground covered with short grass was bare; other level ground covered with tall grass held some snow cover and slopes other than to the south had up to several inches depth of old drifts. The greatest depth on level ground at one time was 9.4 inches on the 3rd.

At the end of March at the South-gate, Snake River, 55 inches snow contained 17.26" water; at Bechler River 68" snow had 24.8" water compared to 84.1" snow and 31.48" water a year ago. At the Cooke City Ranger Station, NE entrance 40" snow contains 13" moisture.

Charles L. Howard.



U. S. DEPARTMENT OF AGRICULTURE, WEATHER BUREAU.

MONTHLY METEOROLOGICAL SUMMARY.

on, **YELLOWSTONE PARK, WYOMING;** month, **MARCH**, 19**37**.

TEMPERATURE. (Degrees Fahrenheit.)			Precipitation. (In inches and hundredths.)	Character of day.	% of possible sunshine	ATMOSPHERIC PRESSURE. (Reduced to sea level; inches and hundredths.)			
Max.	Min.	Mean.				Mean	lowest	highest	date
37	16	26	T	Cloudy	39	30.13	29.58	30.76	4
35	23	29	.05	Cloudy	21				23
39	23	31	.01	Pt.Cldy	100				
44	16	30	0	Cloudy	100				
55	22	38	0	Pt.Cldy	100				
49	23	36	0	Pt.Cldy	96				
41	18	30	0	Clear	100				
45	12	28	0	Clear	100				
49	15	32	0	Clear	100				
48	20	34	0	Clear	100				
46	23	34	0	Cloudy	97				
30	18	24	.01	Cloudy	37				
22	12	17	.16	Cloudy	47				
41	11	26	.07	Cloudy	58				
43	32	38	.01	Cloudy	66				
38	23	30	.30	Cloudy	23				
36	13	24	0	Pt.Cldy	89				
39	19	29	.24	Cloudy	16				
28	21	24	.07	Cloudy	71				
34	19	26	.04	Cloudy	30				
38	15	26	0	Cloudy	68				
28	18	23	.16	Cloudy	10				
30	21	26	.11	Cloudy	27				
30	13	22	T	Cloudy	7				
23	10	16	T	Cloudy	35				
25	-4	10	T	Clear	100				
32	-1	16	0	Pt.Cldy	87				
38	6	22	0	Pt.Cldy	99				
40	13	26	.02	Pt.Cldy	61				
40	27	34	.09	Cloudy	17				
40	20	30	T	Cloudy	39				
37.5	16.7	27.1	1.34	Total.	62				
						MEAN FOR THIS MONTH IN—			
						1871	82	93	04
						1872	83	94	05
						1873	84	95	06
						1874	85	96	07
						1875	86	97	08
						1876	87	98	09
						1877	88	99	10
						1878	89	00	11
						1879	90	01	12
						1880	91	02	13
						1881	92	03	14
						Normal for this month	27.3		27.1
						Absolute maximum for this month for	34		62
						Absolute minimum for this month for	34		-25
						Average daily excess (+) or deficiency (-) of this month as compared with the normal	-0.2		
						Accumulated excess (+) or deficiency (-) since January 1	-597		
						Average daily excess (+) or deficiency (-) since January 1	-6.6		
						PRECIPITATION.			
						Total this month	1.34		21.3
						Greatest precipitation in 24 hours	0.30		16
						Greatest 24-hour snowfall	3.7		18-19
						Snow on the ground at end of month	1.0		
						TOTAL PRECIPITATION THIS MONTH IN—			
						1871	82	93	04
						1872	83	94	05
						1873	84	95	06
						1874	85	96	07
						1875	86	97	08
						1876	87	98	09
						1877	88	99	10
						1878	89	00	11
						1879	90	01	12
						1880	91	02	13
						1881	92	03	14
						Normal for this month	0.99		1.34
						Excess (+) or deficiency (-) of this month as compared with the normal	+0.35		
						Accumulated excess (+) or deficiency (-) since January 1	+1.10		
						MEAN RELATIVE HUMIDITY (Percentage).			
						5:30 a. m.	83		5:30 p. m.
						6:15	17		23
						WIND.			
						Prevailing direction	SW		5594
						average hourly velocity	7.5		
						maximum velocity (for five minutes)	27		
						on	19		
						Maximum wind velocity this month since	1904		
						(True velocity)	43, S,		1921
						WEATHER.			
						Number of days, clear	5		19
						on which .01 inch, or more, of precipitation occurred	14		
						MISCELLANEOUS PHENOMENA (dates of).			
						Auroras	None		None
						Halos: solar	24, 25, 29, 30		12, 18
						Hail	None		None
						Thunderstorms	None		None
						*Frost: light	--		--
						heavy	--		--
						killing	--		--

Total Degree Days 1178 NOTE.—“T” indicates trace of precipitation.
The 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,
27% at 5:30 pm., 5th

Charles L. Howard

Weather Bureau.

U. S. DEPARTMENT OF AGRICULTURE

WEATHER BUREAU

MONTHLY

METEOROLOGICAL SUMMARY

STATION

MONTH

_____, 19

