UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
NATIONAL PARK

FILE NO.

MONTHLY REPORT

1941

IMPORTANT

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ARNO B. CAMMERER
Director
MEMORANDUM for the Director:

There follows the report of activities for Hawaii National Park for the month of December, 1941.

Introduction

Following the 24-hour alert of November 29-30 life in the park resumed its normal course with many guests continuing enjoying themselves at the new Volcano House, and with the usual committees busy making arrangements for the annual community Christmas party for the children. And then Sunday, December 7, when the inevitable occurred.

News during the preceding week had not been reassuring to many of us and we had stayed close to home and our radios. I was up at a little after three Saturday morning listening to news (of what? from where?) and again late that night. Sunday (I had forgotten that it was) I woke up, went in and turned on the radio and was then mad when the maid told me what day it was and there would be no news for some time. I tuned the radio low and began breakfast. About 8:10 I tuned it up again but there was some church program on and I was not paying much attention when I was startled by the clergyman saying that the services which he had just announced for the day were subject to cancellation because of the "Attack on Oahu." This was followed by the station announcer telling the people in Honolulu to stay off the streets; not to use their telephones, that enemy planes were attacking Pearl Harbor, etc. I woke Mrs. Wingate up and was then sorry I had when the announcer, apparently to emphasize the importance of the orders he was giving for the Army, said "This is no fooling - It is the real McCoy." This had an opposite effect and I thought they were only staging a realistic full alert on Oahu. I phoned Ranger Miller on switchboard duty at the park headquarters but he had heard nothing. A couple of others called hadn't had their radios on. Nothing had come in from either the Hilo police or local Army people. The radio announcements continued and certain emergency units were called to their stations but it still didn't seem real until the announcer said the Rising Sun had been seen on the wings of the attacking planes. There could be no doubt then.

I called the Hilo police and they said they were standing by for orders and would notify us as soon as instructions were given to go on duty. The staff and members of the local police guard were ordered to stand by. The Federal Communications Commission office called confirming the attack. I went over to the Army Recreation Camp and conferred with Col. Bonham in
charge there.

Instructions were received from the Hilo police and the Guard was mobilized and assumed duty stations as rapidly as arms and identification cards were issued, though requested a week before) could be issued. Everything was functioning in order by early afternoon. There was tension and some excitement, yet it did not seem so great as that caused by an eruption of Kilauea or Mauna Loa. The office was jammed with people out for a holiday trip seeking passes to enable them to get home before dark. Many had not learned of the attack until afternoon. Offers to help came from everywhere. Key personnel were placed on 24-hour duty and all others on an 8-hour day, 7-day week basis.

The first week or so thereafter was made more than busy with the numerous reports of strange lights, behavior and noises, all of which had to be investigated, as well as several reports of failures to blackout properly. Martial law was proclaimed throughout the Territory on the 7th, with Col. V.S. Burton, District Commander for the Island of Hawaii and Col. Charles B. Lyman for the Island of Maui. Col. Peter Fakelle, Chief Deputy Sheriff for Hawaii, was made Provost Marshal and then relieved in a few days to resume command of the Emergency Police Guard, which he had been instrumental in developing the past year. Col. O.W. Bonham of the Army rest camp left unannounced for active duty in Honolulu and Capt. L.D. Adams replaced him and then was appointed Provost Marshal in Col. Fakelle's stead. Junior Geologist Ernest Schmi reported for duty and received his assignment on the 11th. Mr. Robert Noi was confirmed as Director of Civilian Affairs and under him a number of local business men were named to head various departments (Food Administration H.K. Kellner, Petroleum Administration Capt. Inscomb, etc. A limit of 35¢ a day per person was immediately placed on food purchases. All cars and trucks, except those for which Military Passes were issued, were ordered off the roads and streets both day and night. The blackout went into effect forthwith and has not been broken. Travel of any kind, except by certain authorized persons was prohibited between the hours of 6 p.m. and 6 a.m. The sale or dispensing of alcoholic beverages was prohibited. The Selective Service Local Boards met frequently to complete all classifications and reclassify numerous others. The schools were closed. Bicycles appeared and home gardens were started. An appeal for blood donors was made and met with fine response, particularly from the 100 enrollees, with over 90% donating.

In a very few days the island was well organized and running quite smoothly under its new set-up. Territorial Senator V.B. 'Doc' Hill was appointed to replace Mr. Robert Noi as officer in charge of Civilian Affairs on the 10th. Mr. Noi remained as his assistant. The order restricting food purchases was rescinded on the 18th and before long shortages developed in certain articles. No reason has been discovered for the removal of the restriction which was a more than ample allowance and fair to all. Its removal has placed the out-of-town people at a great disadvantage. Fresh supplies are received and sometimes disposed of before the out-of-town
people learn of their arrival. However, so far as is known no one has suffered even remotely.

On the 16th the Superintendent was appointed a Deputy Sheriff for the Island of Hawaii and other staff and voluntary workers received commissions as Special Deputies for the Puna and Kau Districts. The Superintendent, along with other men in the various districts of the island, was appointed to represent the Provost Marshal in issuing Military Passes, gasoline and kerosene permits, and permits for travel by aliens, for the park and adjacent 20-Mile and Glenwood areas. All arms and explosives in the possession of civilians were ordered turned in at the nearest police station. The wives of two rangers offered their services as volunteer switchboard operators and were put on regular 8-hour shifts, serving continuously since.

For a short time the Volcano House was crowded and then almost empty, but some guests arrived, and since there have always been a few. As time permitted the CCC continued work on the water system connecting lines. The CCC and park staff, in addition to other duties, worked strenuously on several defense projects. The park women made bandages, continued their knitting and sewing for the Red Cross and later were authorized to take over the warehouse job and the issue, and delivery of kerosene, firewood, etc. to release the men for other work. Mr. Randolph Crossley, President Hawaiian Fruit Packers, arrived on the clipper (the one which brought U. S. Army to the Islands) appeared in the park, asked to be put to work and was made an executive assistant to the Superintendent. He was of real help, very efficient and his conduct set a fine example. Some of the Army wives from the rest camp volunteered and served as typists in the office. Twenty-four hours was not half long enough and four or five hours sleep seemed far too much. Kahului, Maui was shelled lightly by an enemy vessel on the 16th. So was Hilo on the night of the 30th, along with Kahului again and a port on Kauai. A shed got a hole in the roof, the people a chance to hear gunfire.

The first excitement wore off, a routine was established, organization perfected, overlapping and unnecessary duties cleared up or dropped and as much regular park work resumed as possible or desirable. Frankly, I can report that, so far as I have observed and from several reports of outsiders, the organization here functioned with greater dispatch, with greater calmness, more thoroughly, efficiently and yet tolerantly than any other on the island. Some changes had to be made, some sharp words spoken, and a head or two lopped off, but all cooperated, and I think you would have been fully satisfied. We are carrying on.
From Haleakala, Ranger in Charge Frank Hjort reports that section closed to the public but he was instructed by both the Superintendent and his District Commander to remain on the job where he and the Park Warden were much needed. The following, which is characteristic of the fine spirit which prevails, is quoted from Ranger Hjort's report:

"On the afternoon of the 6th of the month Ranger Hjort accompanied six men from the local Naval Air Squadron to Paliku Cabin in the crater for the week end. This caused all of us to be in the crater and out of touch with the Commanding Officer of the local air unit when the attack was being carried out at Pearl Harbor. The officer in charge for the Navy called Mrs. Hjort and asked who was the closest person to the men in the crater. Park Warden Plunkett was at his home in Makawao at the time so Mrs. Hjort stated that she was the nearest person to the men in the crater, whereupon the Naval Officer sent Mrs. Hjort in to tell the men to come out and report to their base immediately. Since she could not take her small daughter Anne it was necessary to leave her alone until help could be sent up from friends in Hana to look after Anne until Mr. Hjort returned. Mrs. Hjort proceeded into the crater, making good time, and notified the men to come out which they did with great haste.

"The entire force of Navy men based on Maui phoned Mrs. Hjort their thanks for her efforts."

Then too there are the young generation Japanese (American citizens) from the 29-Mile area about whom the Chief Ranger writes:

"Special mention is made here of the 15 or so Japanese truck farmers from the 29-Mile area who have served faithfully without murmuring throughout the days and nights of rain and cold, knowing that there is slight possibility of paying them for their faithful and diligent services."

I also wish to mention the following, past and present, park women who along with other duties, including work on the home gardens, during the year completed for the Red Cross a total of 50 sweaters, 4 shawls and 20 pairs of socks; Mrs. Frank Easton, Mrs. Lynn Waasche, Mrs. Grace Schula, Mrs. Margaret Miller, Mrs. Margaret Jess, Mrs. Constance Hewitt, Mrs. Wingate and her maid, Marie Kanno.

The park was perhaps better prepared than other civilian communities - we had long been storing food supplies, had home and community vegetable gardens, as well as the one at the CCC camp in operation, had studied and practiced blackout precautions and generally tried to foresee and prepare for what might come.

Christmas activities were curtailed but the principal of the school, with the help of committees already formed, held parties for the children both at 29-Miles and for the park children at the Volcano House. Gifts were fewer and mainland packages did not begin to arrive until around New Year's, but everyone was able to spend some time at home with their families and the children seemed to have as much fun and as many painful
stomachs as in other years. The first mainland mail since the 6th arrived on the 26th, other than some Clipper mail.

Weather Conditions

Precipitation at Kilauea headquarters was 9.43" for December, with maximum and minimum temperatures being 72 and 39 degrees. At Haleakala the ranger in charge reports that at the ranger station a wind averaging about 35 mph blew for 3 weeks without letting up, maximum and minimum temperatures were 88 and 35 degrees, and precipitation amounted to 5.15". Incomplete records make it impossible to give a true picture of weather at the summit of the mountain. At Kilauea, until about the 16th of the month, the weather was miserable, cold, windy and rainy. The last half of the month, however, was clear, warm and dry.

Following are annual precipitation figures, temperatures, etc. for Kilauea and the Haleakala Ranger Station. At Kilauea total precipitation amounted to 89.54", maximum and minimum temperatures were 79 and 39 degrees; there were 108 days with .01" or less rain and 25 clear days. At Haleakala Ranger Station precipitation totaled 44.74", maximum and minimum temperatures were 77 and 51 degrees, there were 301 days with .01" or less rain and 187 clear days. During January and February 1941, conditions almost resembling drought prevailed on this island. With a total rainfall of 4.06" this is serious in an area which is wholly dependent on the rainfall for its water supply. However, in March precipitation increased to 7.18".

Inspections

The Superintendent remained at park headquarters the entire month, and during the first week made routine inspections of construction and other projects under way in the headquarters area. Since the 7th, inspections of various outlying districts, especially along the seacoast, have been made and meetings, averaging twice a week of the Local Selective Service Board at Olau, of which he is chairman, have been attended. A few trips were made to Hilo on business.

Park Operators

With travel between the islands practically at a standstill, and with gasoline rationed, business at the Volcano House declined to almost nothing, though over the Holidays there were about a dozen guests.

New Construction

At the end of December the Volcano Observatory and Naturalist Building (CCC Job 54) was reported 85% complete, the 6th water collection line from the Volcano House to the park reservoir (CCC Job 60) 65% complete. One hundred twenty mandays were expended in renovating barracks No. 1 at the CCC camp, and 57 mandays used in completing the setting up of the camp water tanks.
Cooperating Governmental Agencies

The Park Service has been cooperating to the fullest extent with Army officials in all matters, checking alien travel, issuing gasoline permits, etc.

On December 6 the ranger in charge of Haleakala packed two mule loads of food and supplies into the crater (Paliku cabin) for Dr. Harold Stearns of the US Geological Survey, for use in his exploration of Kipahulu Valley. However, due to the uncertain times Dr. Stearns did not get in to the crater until almost the first of the new year.

We regret that Lieut. General Walter C. Short, former commander of the Hawaiian Department, should have left the Islands under a cloud. He had seemed to us one of the ablest men to have had the Hawaiian command and during his tour of duty relationships with the Army were on a most friendly basis. We feel that both the Army and the Service here cooperated fully during the time he was in command.

Cooperating Non-governmental Agencies

Likewise we have been giving the fullest cooperation to the County Police Department.

State, County or Municipal Legislation Affecting Park Area

Since December 7, the entire Territory has been under martial law, with the Commanding General of the Hawaiian Department, USA, serving as military governor.

Lectures, Guide Service and Interpretive Contacts

This work progressed normally for the first week of the month, and since the 7th little use has been made of the park by visitors, though this should increase as conditions become more stabilized. Limited programs are planned for January.

Research and Observation

The park naturalist prepared a preliminary outline for a long-term research program.

There has been no surface manifestation of activity at the Hawaiian volcanoes since August 1940, save for diminishing fumarolic activity in Mokuaweoweo and the usual steaming at established vents.

There was an increase in the number of earthquakes centering in the Waimea area during the first week of the month. Coincidental with the onset of the war with Japan there commenced a seismic lull that continued through the rest of the month. Perceptible earthquakes occurred on December 24 and 30.
After December 7 routine care and measuring of seismographs took up all time of the volcanologist that was available after emergency police guard duties were performed. The Observatory staff was further depleted when Junior Geologist Paul Ernest Schulz, who is a reserve officer, was called to the Army on December 11. This leaves all routine and research work in the hands of the volcanologist and instrument-maker.

Ranger Baldwin's time during the first week in December was equally divided between bird conservation work and regular ranger duties. From the 7th, when not employed on regular ranger duties time was found to make trips to Mauna Loa for the purpose of taking bird census counts. A visit to 3 Trees Kipuka showed that nene had spent limited time there during December.

Increase or Decrease in Travel

It is estimated there were approximately 5000 visitors to the Kilauea section during the first week of the month. Since then visitor travel has declined to almost nothing. The Army has ordered that the Haleakala section be closed to the public, so there will be no travel to that section for the duration.

Ranger Service

Paul H. Baldwin was transferred from the position of Senior Wildlife Foreman, CCC, to a position as ranger in this park, effective December 1.

Wildlife Protection

At Haleakala 17 wild goats were killed in December.

Building Fire Protection

On the evening of December 1 the park fire equipment was called to take care of a building fire in the 29-Mile area, 2 miles outside the boundary. However, by the time the truck arrived little was left of the shack, which, together with the personal effects of the occupant, a Puerto Rican garden laborer, was totally destroyed. The fire was extinguished with the pumper and water carried on the truck.

The ranger in charge of the Haleakala section reports that all fire fighting equipment there has been checked and put in readiness for any emergency. His wife has been taught the use of all hose and extinguisher equipment in the event fire broke out when she was alone.

Forest Fire Protection

Acting on a request from the manager of the Kapapala Ranch on December 28, Assistant Chief Ranger Olson took a squad of CCC enrollees and fire fighting equipment to a grass fire which was reported below the old Half-Way house, just outside the west boundary. However, the fire had been extinguished by the time they arrived.
Accidents

At Haleakalā, on December 6, a car driven by Mr. W.E. Foster of Paia Maui, had the misfortune to run into a rock that was falling from the bank on one of the road cuts. There were no injuries, but extensive damage was done to the car. The accident occurred about a quarter of a mile above the 8000 foot turn and only about 50 yards from the scene of accidents on October 13, 1941 and June 16, 1940. The conclusion has been reached that this must be an unlucky stretch of the park road.

Civilian Conservation Corps

Three boys were enrolled and 2 discharged, one for expiration of term of service and the other for securing employment. Since December 7 there has been curtailment of various projects, with enrollees devoting most of their time to various emergency projects. Twenty two boys were put on detached service at the Panaewa Camp on December 16, on orders from the District Commander’s office. These boys were to be used as labor gangs on defense work.

Between December 11 and 13, in response to a call from Honolulu for blood donors, 96 boys made donations.

The regular CCC Christmas party, to which outside guests had been invited, was called off, though the boys had their regular turkey dinner and program at camp. They had worked until 3 p.m. that day.

Miscellaneous

Assistant Park Naturalist and Mrs. Gunnar O. Fagerlund announced the arrival of their second son on the 21st.

Edward G. Wingate
Superintendent
Memorandum for the Superintendent:

Report of Hawaiian Volcano Observatory for the month of December.

There has been no surface manifestation of activity at Hawaiian volcanoes since August 1940 save for diminishing fumarolic activity in Mokuawoawe and the usual steaming at established vents.

There was an increase in the number of earthquakes centering in the Waiamea area during the first week of the month. Coincidental with the onset of the war with Japan there commenced a seismic lull that continued through the rest of the month. Perceptible earthquakes occurred on December 24 and 30.

Some of the quantitative data obtained during December was as follows:

<table>
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<th>Tilt</th>
<th>Seismic Disturbances</th>
<th>Seismicity</th>
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<tr>
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<tr>
<td>14</td>
<td>Slight SSW</td>
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<td>21</td>
<td>W</td>
<td>8</td>
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</tr>
<tr>
<td>28</td>
<td>Strong SE</td>
<td>5</td>
<td>2.25</td>
</tr>
</tbody>
</table>

Work of R.H. Finch:

Some time was spent on various projects connected with the Observatory-Naturalist Building. A start was made on finishing the seismologist's room.

Proof was read on the July-September 1941 Volcano Letter.

After December 7 routine care and measuring of seismograms took up all time that was available after emergency police guard duties were performed.

Work of P.E. Schulz:

Mr. Schulz went into the Army on December 11 as a 1st Lieutenant. Prior to that his time was spent on routine care of instruments and measuring seismograms. Parts of the few days from December 7 to 11 were spent in the emergency police guard.
Work of B.J. Loucks

December 1-5. Shop work 23½ hours

After December 7 a large part of each day was spent in the emergency police guard. He has continued with the routine care of the seismographs and working on shop equipment as time permitted. Special shop jobs included 4 hours on a machine gun mount for Kilauea Military Camp, 3 hours on a radio for the Federal Communications Commission and 3 hours on gun rods for Chief Ranger Christ.

Ruy H. Finch
Ruy H. Finch
Volcanologist
MEMORANDUM for the Superintendent:

The following is a report of the activities of this division for the month of December, 1941: individual ranger’s reports are attached.

The period prior to December 7th was taken up with purely routine matters including the ironing out of some wrinkles in the emergency police guard setup which was thoroughly tested and found to function smoothly and efficiently in an alert lasting 24 hours, November 29 and 30. During this test which simulated actual emergency, all deputized members of the guard stood 8-hour guard and patrol watches.

Public contacts for the month were as follows: 2 tours for 81 persons and 1 hike for 5 persons.

The park fire equipment went to a fire in the 29-mile area but by the time the truck arrived at the place, little was left of the shack. A small dwelling cabin was destroyed along with personal effects of a Puerto Rican garden laborer. The fire was extinguished with the pumper and water carried on the truck.

Subsequent to the Jap attack upon Honolulu the ranger division has headed the emergency police guard organization which now consists of about 80 members of park, CCC and hotel staffs and neighboring farmers and laborers. All are volunteers, recruited to guard vital community facilities from possible injury by saboteurs for the duration of the war or until such a time as their services will no longer be necessary. All have been commissioned special police officers by the Hilo police department. Special mention is made here of the fifteen or so Japanese truck farmers from the 29-mile area who have served faithfully without murmur through long days and nights of rain and cold, knowing that there is slight possibility of paying them for their faithful and diligent services.

This division has undertaken the task of teaching the proper handling and shooting of firearms to the Guard members. Donated guns and ammunition have been used and gratifying results have been obtained in at least some cases.

The police guard has had the responsibility of seeing that this community is thoroughly blacked out at night. In anticipation of possible enemy air-raids, sand containers have been placed at the front and rear of all residences and larger buildings to be used
in fighting incendiary bomb-fires.

Three seacoast observation posts at strategic points have been established, each being manned by two men who have been provided shelter and camping facilities. Six and one-half miles of telephone line was constructed with 1/3 aid to one post and one and one-half miles of line to another. Various other telephone changes and construction were made to provide instant communication with guard stations. The seacoast to the south and east of the park has been frequently patrolled as directed.

Joseph H. Christ,
Chief Ranger.
UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
HAWAII NATIONAL PARK
HAWAII

Memorandum to Superintendent Edward G. Wingate
through office of Chief Ranger J. H. Christ.

The following narrative report of the Haleakala section for the month of December, 1941 is respectfully submitted.

000 General 010 Introduction

On the afternoon of the 6th of the month Ranger Hjort accompanied six men from the local Naval Air Squadron to Paliku Cabin in the crater for the week end. This caused all of us to be in the crater and out of touch with the Commanding Officer of the local Air unit when the attack was being carried out at Pearl Harbor. The officer in charge for the Navy called Mrs. Hjort and asked who was the closest person to the men in the crater. Park Warden Plunkett was at his home in Lahaina at the time so Mrs. Hjort stated that she was the nearest person to the men in the crater, whereupon the Naval Officer sent Mrs. Hjort in to tell the men to come out and report to their base immediately. Since she could not take her small daughter Anne along it was necessary to leave her alone until help could be sent up from friends in Hamakupako to look after Anne until Mr. Hjort returned. Mrs. Hjort proceeded into the crater, making good time, and notified the men to come out which they did with great haste.

The entire force of Navy men based on Maui phoned Mrs. Hjort their thanks for her efforts.

020 General Weather conditions

A wind averaging about 35 miles an hour blew for three weeks without let up this month at the Ranger station. There were 22 clear, 5 partly cloudy, and 4 cloudy days this month. The Maximum was 68 on the 26th and 27th while the minimum was 35 on the first day of the month. Rain fell on 11 different days to total 5.13 in. Incomplete records make it impossible to give a true picture of the weather at the summit.

100 Administrative Equipment and supplies (150)

The three smaller spools of cable arrived this month but the larger one was left on the dock in Honolulu and it is very indefinite as to when it will be sent over.

200 Maintenance, Improvements and New Construction 220 Improvements

Lights have been installed in the Park Office and a new cable has been laid for the counting device to the instrument in the office to replace the old wire that ran on top of the ground and caused endless trouble. Three new tables with varnished masonite tops were installed in the public building at the Summit.
300 Activities of other agencies in the park 320 Cooperating governmental Agencies

On the 6th two mule loads of food and supplies were packed into Paliku Cabin for Dr. Harold Stearns of the Geological Survey to use in his exploration of Kipahula Valley. Due to the uncertain times Mr. Stearns did not get into the the crater until almost the first of the year.

By Army orders due to certain defence set up within the park boundaries the park was closed to the public on the 7th.

400 Flora, fauna and natural phenomena 490 Miscellaneous

A small patch of gorse was discovered within the park and removed.

It was found that beyond all doubt the cattle in the park are eating the sandalwood young shoots and are doing minor damage to the pile bushes by eating them.

600 Protection 610 Police protection

The park force here is acting under the supervision of the Army officers in all police work and doing its part. Ranger Hjort guarded the Army installations at Red hill at night until a regular Army guard arrived to do that work.

620 Fire protection

All fire fighting equipment has been checked over and put in readiness for any emergency. Mrs. Hjort was taught the use of all hose and extinguisher equipment in case she would be alone and fire broke out from any cause.

630 Accidents

Mrs. W. E. Foster of Paia while coming down from the summit on the 6th had the misfortune to run into a rock that was falling from the bank in one of the cuts on the road. No one was injured but extensive damage was done to the car. The accident occurred about a quarter of a mile above the 8000 ft. turn and was only about 50 yds. from the scene of the accidents of Oct. 13, 1941 and June 16, 1940. This must be the unlucky part of the park road.

640 Destruction of predatory animals

A herd of about forty billy goats were cornered by Ranger Hjort and 16 were killed before they broke past him and made their get-away. One more billy was killed this month to bring the total up to 17 goats.

Frank A. Hjort
Ranger in Charge
UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
HAWAII NATIONAL PARK
HAWAII

January 6, 1942

MEMORANDUM for the Superintendent through the Chief Ranger.

The following is my narrative report for the month of
December, 1941.

I assisted in the attack on a building fire in the
29 Mile area on the 1st.

A park tour for 67 persons from Kilauea Military Camp
was made on the 3rd.

Since the outbreak of hostilities on the 7th, I have
been carrying out my duties as a member of the Emergency
Police Guard. I supervised and assisted in the construction
of 6½ miles of grounded circuit telephone line from Makawahi
to Pennu. I installed the repeating coil, grounds, and
instrument. I also constructed 1½ miles of grounded circuit
line from Ainahou Ranch house to the top of Poliokeawi Pali
near the Eastern boundary of Ainahou. Routine maintenance of
telephone instruments, power ringer, and switchboard was
carried out.

The installation of the water collection line from the
Volcano House to the park reservoir was completed during the
month, as well as the connection for the new garage. A
connection from our fire line to the Volcano House supply
line was laid out by me and installed by the CCC organization.
A temporary collection line for the Observatory and Naturalist
building was also laid out and the installation made by the
CCC. Assistance was given the park operator in staking out
the location for the pipe lines to connect the steam cooker
with the Volcano House hot water system.

Routine building inspection work was accomplished.
U. S. Geological Survey bench marks 2730 and 1639 on the Kalapana Trail were recovered and found to be in good condition, as well as supplementary bench mark 2503. The station and reference marks at Panau triangulation station were found to be in good order. Triangulation station 2652 below Ainahou Bench was recovered and found to be in good order.

I accompanied Captain L. W. Bryan on an inspection of CP4 and CP6 on the 30th.

P. S. Application was made to Board of Registration for Professional Engineers, Architects, and Surveyors for license and examination as a civil engineer on the 2nd.

A. L. J.
MEMORANDUM FOR THE SUPERINTENDENT,
THROUGH THE CHIEF RANGER,

SUBJECT: Monthly report for December, 1941.

In the week, December 1-7, time was equally divided between bird conservation work and regular ranger duties. Census counts, field observations, and office work relative to bird records were carried on. Patrol, telephone installation, and public contact work was done.

From December 7-31, full time was devoted to home guard duties. During daylight hours, however, time was found for changing the Mauna Loa seismograph and taking bird census counts. A visit to 3-trees Kipuka showed that nene had spent limited time there during the month of December.

Respectfully submitted,

Paul H. Baldwin
Park Ranger
UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
HAWAII NATIONAL PARK
HAWAII

January 5th, 1942

To the Superintendent through the office of the Chief Ranger

Subject: Narrative report for the month of December 1941

Contacts

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War Activities

The morning of Dec 7th I was on switchboard duty, in the afternoon I was assigned to highway duty in front of the park headquarters to stop, search and check all cars. Dec 8th and 9th assigned to highway motor patrol; Dec 10 to 16th I was sent to Milina with plane table and alidade, maps and a 40 power telescope. I set up this equipment that any land or near island lights, planes or ships at sea could be located and their bearings transmitted to the proper authorities.

From Dec 16th to the end of the month I took regular turn at guard duty at the various post in the park

Charles W. Miller
Ranger
MEMORANDUM for the Superintendent through the Chief Ranger.

The following is a narrative report of my activities for the month of December, 1941:

My time prior to December 7 was taken up with office work on reports and orders for Emergency Police Guard. On the evening of December 1st a run was made with the park fire equipment to a house fire in the 29-Miles area. The equipment and personnel functioned efficiently and the fire was rapidly extinguished with the 300 gallons of water on the fire truck. However, as the roof had already fallen in when we arrived, little was saved or the cabin.

Work subsequent to December 7 has been toward preventing Hawaii National Park from becoming a possible Hawaii National Battlefield Park. The writer has been on 24-hour duty as squad leader of guards of the EPG since the war began with several outpost trips as special assignments. On these trips, Kalapana Trail between Makapahi crater and Kalapana was hiked and the Panau observation post watchman instructed and equipped. This trip was made on Dec. 14. On Dec. 15 and 16 a hike was made down the Great Cracks to grass ruins on a special assignment. On Dec. 20 a patrol trip to Keauhou and Kalapa was accomplished on horseback. One inspection trip to Kihima Hale observation post was made on Dec. 21. On Dec. 25th water and camp materials were taken to Polio Keewe pali on the east Ainahou Hench boundary for the establishment of a camp for the seacoast horseback patrol.

On the 28th a run with grass-fire fighting equipment and 50C enrollees was made to a reported grass fire below the old Half-Way House. The fire had been extinguished before we arrived.

- An io, Hawaiian hawk, was seen in flight near Kea's house on the Kalapana trail at 11:30 a.m., Dec. 12.
- A large pueo, Hawaiian owl, was seen at Aiahi crater, 7:00 p.m., Dec. 20.

The latter part of December was taken up with gun and shooting instructions for members of the EPG and target practice on the Aua shooting range.

[Signature]
Gunder D. Olson, Ass't. Chief Ranger.
CHRISTMAS DAY PROGRAM

The Camp observed Christmas Day with the customary turkey dinner which was enjoyed by 82 enrollees. At the time of the dinner two (2) enrollees were stationed at Hilihi Falls, three (3) were on guard duty and twenty two (22) were on detached service to Panaewa CCC Camp.

After the dinner all the enrollees assembled in the recreation hall which was gaily decorated with bells of green and red and all the other things which brighten the place up. In one corner was the never to be forgotten Christmas tree. All in all everyone had the Christmas spirit in them and had a jolly good time.

The Christmas program was conducted by the enrollees with Michael Cintron as Master of Ceremonies and are as follows:

1. We open our program by mass singing of Christmas carols.
2. John Issa told a joke and sang "You're as sweet as the Red Rose in June".
3. Thomas Manalo sang "The Vine Covered Shack in the Mountain" accompanied by Andrew Wright with a guitar.
4. Lionel Liborio sang "Ranch in the Sky" accompanied by Andrew Wright and Abraham Silva with guitars.
5. The Camp musicians consisting of Joseph Kaniho, Joseph Nahi, Andrew Wright, Lionel Kanawaloa, and Abraham Silva played some Hawaiian songs.
6. Abel John, Alfred Malaluan and Herbert Waltjen accompanied Abraham Silva with guitar sang "I give you my Word".
7. A duet by Abraham Silva and Herbert Waltjen.
8. Thomas "Brute" Vidad sang "Little Kid Sister of Mine".
9. Peter Rapoza sang a Portuguese song.
10. Eugene Blasing and Alfred Malaluan sang "I don't want the World on fire".
11. S.T. Lee, John Ko, C. Kobayakwa, and M. Nagata sang "Dany Boy" (tried too)
12. Edward Haili accompanied by the Camp musicians sang Till Reveille and Haleiwa.
13. Our Camp musicians played two Hawaiian numbers.
14. We pledged our allegiance to our FLAG.

15. (Grand Finale) we sang "GOD BLESS AMERICA".

16. Through the kind generosity of the canteen all the enrollees received a Christmas gift consisting of a package of candies and nuts, soda pop, and cigarettes.

We enrolled three new boys and discharged two of which one for expiration term of service and one for securing employment.

The starting of hostilities by Japan against the Islands on December 7, 1941 and the resultant declaration of war by the United States has caused a setback on the prosecution of the various projects.

During the month the following man-days were utilized both on projects and emergency work:

<table>
<thead>
<tr>
<th>Activity</th>
<th>Man-Days</th>
</tr>
</thead>
<tbody>
<tr>
<td>Detach service to Panaewa CCC Camp</td>
<td>352</td>
</tr>
<tr>
<td>Obliterating possible airplane fields</td>
<td>531</td>
</tr>
<tr>
<td>Crating Colonel Bonham furniture</td>
<td>21</td>
</tr>
<tr>
<td>Setting up emergency telephone line</td>
<td>92</td>
</tr>
<tr>
<td>Patrol detail-CCC Camp</td>
<td>84</td>
</tr>
<tr>
<td>Telephone service</td>
<td>138</td>
</tr>
<tr>
<td>Emergency police guard</td>
<td>130</td>
</tr>
<tr>
<td>Park orderlies</td>
<td>30</td>
</tr>
<tr>
<td>Total</td>
<td>1046</td>
</tr>
</tbody>
</table>

Use on projects: 806 man-days

Grand Total: 2204 man-days

The CCC office maintained 24 hours communication service with the Park office since Sunday, December 7, 1941.

Starting Thursday December 11th to December 13th inclusive 96 enrollees responded to a call for blood donors.

A pep rally was conducted on Sunday December 14, 1941. Superintendent Wingate and Doctor Phillip were the main speakers. Group singing and music was enjoyed by all of the assembled enrollees.

Twenty-two enrollees were put on detach service at Panaewa Camp on December 16, 1941 as per orders from District Commander's office.

A turkey dinner and program was held for the enrollees on Christmas Day.

Doctor Phillip has commended verbally on the lack of sickness in the Camp which has been very fortunate. For the entire month only 4 man-days were lost due to having to put to bed 2 enrollees 2 days apiece for having bad colds. The sanitation of the Camp premises is favorable with corrections being done every once in a while to attain the desired results.
The morale of the enrollees as a whole is very high and it is gratifying that in an emergency the CCC enrollees can be depended upon to do whatever they are called upon to do.

The recreation hall, library, canteen, music room, bath house and kitchen were all blackout so that various functions could be carried out after dark.

PROJECTS

Job 54 Volcano Observatory and Naturalist Building

One hundred and forty six man-days were utilized on the Observatory building making it 56% complete.

Job 60 Utility Connections

Two hundred and fifty eight man-days were used in completing the 6" water collecting line from the Volcano House to the Park Reservoir, making this project 50% complete.

Job 82 Camp Repairs

Mr. Russell expended 120 man-days in renovating Barrack #1.

Job 83 Water Storage and Main

Fifty-seven man-days were used in completing the setting up of the Camp water tanks.

Various other small projects were continued.

Respectfully submitted,

Herbert R. Rennie
Camp Director, CCC HNP
MONTHLY REPORT

NOVEMBER 1941

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.
MEMORANDUM for the Director:

There follows our narrative report for the month of November.

Introduction

For reasons more or less beyond our control the preparation of this report has been delayed.

The staff was extremely busy throughout the month due to work connected with the opening of the new Volcano House on the 8th, the prolonged spell of earthquakes originating in the Waimea section of this island and revisions in the organization and duty assignments and tests of the Emergency Police Guard.

Headed by the Governor of the Territory, Joseph Poindexter and Miss Helen Poindexter, a crowd estimated between 600 and 800 persons, representing all walks of life and races in the Territory, attended the ceremonies and celebration of the opening of the new Volcano House on November 8. The week preceding had been one long headache for the operator, the contractor, the interior decorator, park and 200 personnel; all trying to bring to completion the many jobs incidental to opening for business, but the opening was in every way a complete success. That it was such a success in no small way is due to the wives of some of the park staff, and at last to the guests themselves. The park women worked for days cleaning up after the contractor, arranging furniture, flowers, etc., and they all gave the place a thorough polishing the morning and afternoon before the opening.

The ceremonies actually began on the night of the 7th with Hawaiian rites at the brink of Halemaumau in which only the superintendent and Mr. Lycurgus were permitted to participate. The public ceremonies were begun at about 1:30 p.m. on the 8th, when Mr. Lycurgus, his family, all the hotel guests, and employees and visitors, gathered outside and the doors were locked. Following two chants in Hawaiian the doors were opened and Mr. Lycurgus entered and received his guests. A national broadcast from KGMB over the Mutual network (Hawaii Calls program) then went on the air at 2 p.m. The program included ancient Hawaiian chants and more modern musical numbers. A prayer in Hawaiian by the Rev. Stephen Desha and short talks by Mr. David Sarnoff, President of the Radio Corporation of America; Mr. Lycurgus; and the Superintendent, who read congratulatory messages sent Mr. Lycurgus by the Secretary and Director. Mr. Webley Edwards of KGMB was
announcer. During the broadcast coals from the fireplace in the old hotel were placed in the new fireplace by Mr. Lycurgus and the so-called ever-burning fire was given a new home. Upon conclusion of the broadcast a short dedication ceremony was held under the auspices of the Hawaiian Civic Club. An informal buffet dinner and dance concluded the official celebration, but delighted guests kept an informal celebration in progress for upwards of three weeks.

The new hotel in every respect is all that could be desired and the largely new staff, including waitresses, has worked efficiently, unobtrusively, and with charm.

The carvings in wood and stone done by Marguerite Blasingame of Honolulu over the fireplaces in the lobby and club-room depicting Pele, Hawaiian Goddess of the Volcanoes, and the legend of Hina and Lohiau have evoked, as was to be expected, both high praise and censure. The praise has come generally from a higher level of intelligence, however, than the censure. Pictures of both carvings are included in this report.

Grossman and Moody of Honolulu did the interior decorating and supplied the furniture.

On the day of the opening the lobby, office, dining room, and club room were filled with flowers given by friends and well wishers of Mr. Lycurgus. This display included most effective arrangements of native plants done by Mrs. Annabel Ruddle of Hilo. Mr. Lycurgus received also many fine gifts of books, small furnishings, paintings, etc., and a magnificent radio.

Mr. Lycurgus was a justly proud and happy man that day. He told me—"Now Ed I can die happily. I have just prayed to live long enough to see this hotel finished."

The hotel has been filled ever since the opening, but Mr. Lycurgus moved back to his little room in the old hotel.

At 10 p.m. November 29 the efficiency of the Volcano District Emergency Police Guard, our civilian home-defense organization, was tested by a surprise "alert" call, ordered by the superintendent, with the concurrence of the County Police, under conditions simulating actual emergency. An almost 100% turnout was had, with members reporting for duty from as far as 30 miles away; and the organization, which includes park, CCC, hotel personnel, and picked civilian residents within a 3-mile radius of park headquarters, worked remarkably well. Three 8-hour shifts of guard and patrol were completed before the alert duty was finished. The spirit of enthusiasm and high morale of the members, many of whom stood their entire watches in a cold rain, was commendable.
Weather Conditions

Total precipitation at Kiluaea amounted to 5.47", at the Haleakala ranger station 1.47", and at the summit 0.42". Maximum and minimum temperatures were 88 and 30 degrees at the summit of Haleakala, 71 and 40 degrees at the Haleakala ranger station and 77 and 47 degrees at Kiluaea. Ranger Hurst reports almost perfect weather at Haleakala, with a total of 22 clear days. At Kiluaea, however, there were only 3 days with less than .01" rainfall.

Special Activities

The superintendent remained at headquarters the entire month; spending a great deal of time the first week on matters in connection with the opening of the new Volcano House.

Assistant to the Superintendent B.F. Moomaw, Jr., together with Mrs. Moomaw and their baby, departed for the mainland on the 19th, where Mr. Moomaw will attend the Personnel Training Conference to be held the first two weeks of December at Region IV headquarters.

Plans, Maps and Surveys

A meridian for orientation of the direction finder at the local Federal Communications Commission listening station was established. USGS B.M. 3532 on the east side of the Kamalohoa highway, near the edge of the Keamoku lava flow was recovered and found to be in good order; USGS B.M. 2836 below the "halfway house", just beyond the park entrance.

General Publicity

Wide publicity was given the opening of the new Volcano House; in all territorial newspapers, and a special section was devoted to the hotel in the November 8 edition of the Hilo Tribune Herald.

Maintenance

Mechanic Fujimoto spent approximately 2 weeks at the Haleakala section for the purpose of painting and overhauling some of the automotive equipment located there. One truck was sent over from Kiluaea for use there, and the dump truck from Haleakala was returned to Kiluaea for overhauling. A spare power plant was installed temporarily at Haleakala in order that the regular plant might be overhauled.

Foreman Quick reports a decrease in cost per square yard for paving roadside ditches from 90¢ in 1941 to 78¢ in 1942.
New Construction

Work was resumed by the CCC (job 54) on the Volcano Observatory and Naturalist Building after the opening of the Volcano House, and at the end of the month it was reported 57% complete. The seismograph cellar (CCC job 77) located at the rear of the hotel was finished, though the terrace is not yet complete. The garage at the hotel was completed by the CCC (job 81).

Improvement of Approaches to the Park Area

The ranger in charge of the Haleakala section states that the highway landing into the park is being widened on some of the bad turns on Pau: Niamiau, at the request of the Army. It is hoped the Territory will see fit to continue this work on some of the other bad stretches below the park entrance.

Lectures, Guide Service and Interpretive Contacts

On the 29th - National Park Day - a group of about 95 members of the Hilo Teachers' Union and guests visited the park, and were escorted to the various points of interest by the ranger and naturalist staffs. Afterward they had lunch at the Volcano House. At the luncheon the superintendent gave an address of welcome, Volcanologist Finch talked on the activities of the Volcano Observatory and Naturalist Fagerlund talked on the work of the naturalist division.

Other groups which were given special service by the ranger and naturalist staffs included officers and men from a Navy ship and 60 Japanese Honolulu Sunday School teachers. A lecture was also given at Paauhau School to a total of 579 persons.

Groups of 10 men from the Navy Air Station on Maui are being conducted through Haleakala crater with a one-night stop at one of the rest-houses every other week. The recreation officer of the local unit has stated he has had a hard time finding recreation for all the men on Maui and has expressed his appreciation to the Park Service for assistance along these lines. The men taken in have enjoyed the trips.

Cooperating Governmental Agencies

The ranger in charge of the Haleakala section states that the Army made almost no progress on its installations in that area, reportedly because of lack of materials.

Research and Observation

Activity at Mauna Loa and Kilauea volcanoes was confined to the usual fumarolic localities. Four hundred fifty eight separate earthquakes were recorded on the various Observatory instruments. The majority of the quakes originated near Waimea on the northwestern slope of Mauna Kea, at an eleva-
tation of about 2900 feet. The stronger ones shook not only the entire islands of Hawaii and Maui, but were felt on Oahu as well. The strongest quake of the series, occurring at 2:56 A.M. November 18, caused some landslides in the northeastern part of the island of Hawaii and minor damage in a few other localities.

On the 15th Volcanologist Finch made a trip to Kona and Waimea to adjust the seismograph at the former place and to look for surface breaks from the earthquake at the latter locality. A trip was made by Mr. Finch to Waimea and the rest-house on Mauna Kea in company with Park Naturalist Fagerlund on November 21 and 22. Observations indicate that the cinder cones on Mauna Kea may be aligned along both radial and concentric rifts.

Assistant Chief Ranger Olson's work at the park nursery for native trees and plants continues to produce evidence showing that native types can be successfully propagated through nursery methods. The opinion is widespread in the Territory that the native trees are too difficult to handle to warrant their propagation. During the month he succeeded in transplanting 8 kaulia (Alphitonia ponderosa); 25 papala kepua (hartpeilana obovata); 7 alani; (Poelea sp.); 6 uki (Dianella odorata); 16 naio (Myoporus sandwicense); 42 kopiko (Struania sp.); 37 lana (Mauna sandwicensis); 1 kokio (Hibiscus kokio) (native red hibiscus, very rare); 1 akala (Rubus hawaiensis) (native Hawaiian raspberry); 4 mamani (Sophora chrysophylla) and 6 kou (Cordia subcordata).

For the first time, so far as can be learned, the Kipukalua, or so-called "Bottomless Pit" in Haleakula crater was entered and explored, when, on the 16th, a small group of officers from the local Waial Air Station, a group of local men and the ranger in charge of the Haleakula section entered it. A cable was stretched across the opening and anchored to two steel bars driven deep into the ground. A pulley was attached to the cable over the opening of the pit and each man to enter was lowered by rope on a boardingman's chair with the use of the pulley and about 5 men on the other end of the rope. It was hoped there would be evidence of ancient use of the pit as a place for human sacrifice but there was absolutely nothing in the pit's bottom to indicate that it had ever been used by the Hawaiians, nor were there any tubes leading elsewhere from the bottom. The pit proved to be 60 feet deep. No publicity was given this exploration.

CCC Senior Wildlife Foreman Baldwin reports that 39 regular census counts were taken of birds on 11 plots from 7400 feet elevation on Mauna Loa, to Huloa Falls, at 2000 feet. He spent 3 days in the lower ohia forest near Apua Point and in the vicinity of the Kalapua trail in search of the Akpa (Loxops). It was located successfully each trip, and additional information concerning its range and habitat was obtained. Observations and notes were obtained on life histories of banded birds at Kipuka Kulalio, and 3-Trees Kipuka.
On November 3 three jungle fowl, probably from Keahou Ranch, alighted at Uakehuna Museum and were caught by the CCC enrollee on duty. They were removed from the park.

Park Operators

As an added indication of the new Volcano House's popularity, two dances were held there during November, both of which had good sized attendance. One was given by the Hilo Junior Chamber of Commerce, on the 29th; and the other by the Hilo High School Alumni Association on the 32nd.

Increase or Decrease in Travel

There were 27088 visitors to Kilauea as compared with 18,383 persons in November 1940; and at Haleakala the ranger in charge reports 2380 visitors, as compared with 1560 for the same period last year.

Visitors

Governor and Miss Helen Poindexter; Mr. Solan T. Turner of the US Board of Tax Appeals; David Sarnoff, President RCA; Stanley Kennedy, President Inter-Island Steam Navigation Company and Inter-Island Airways; Mr. and Mrs. L.H. Whitehouse, Territorial Land Commissioner; Territorial Senator and Mrs. W.H. Hill; Mr. and Mrs. L.D. Larsen, Vice-President C. Brewer & Company (sugar factors); Mr. and Mrs. L.F. Thorston, President Honolulu Advertiser; Mr. and Mrs. George Waterhouse, President Bishop National Bank of Honolulu; Mr. and Mrs. Clarence Cooke, President Bank of Hawaii; Mr. and Mrs. John McDaniel, Vice-President Bishop National Bank; Mr. and Mrs. R.R. Budge, Vice-President Hanno Young Company, Honolulu; Mr. & Mrs. George T. Armitage Executive Secretary, Hawaii Tourist Bureau.

Ranger Service

Advice has been received that the transfer of Ranger Francis Crouch from Isle Royale to Hawaii had been approved by the Secretary and it is expected he will report for duty after the Holidays.

Advice was also received approving the transfer of CCC Senior Wildlife Foreman Paul H. Baldwin to a position as assistant chief ranger.

Wildlife Protection

Special attention was given to the control of wild goats and 187 were destroyed during the month at Kilauea. At Haleakala no goats were seen by the ranger in charge, who made three trips into the crater during the month.
Building Fire Protection

A fire drill at the CCC camp was well responded to and a fire drill at
the park utility and residence area showed efficient operation by the fire
fighting forces. A fire drill at the new Volcano House disclosed the fact
their alarm cannot be heard in the kitchen when the dish-washing equipment
is in operation. Study is being made to find a satisfactory way to remedy
this.

Miscellaneous

CCC - Five boys were enrolled and 13 discharged, of which 7 for ex-
piration of term of service, 3 for securing outside employment, 3 for deser-
tion and 1 as a transfer to Camp EP-10 Quinault, Washington.

An excellent dinner was served at camp in celebration of Thank-
giving, November 19.

The vocational training classes, given under the auspices of the
National Defense program, were discontinued November 29. Mr. Nakamura, who
was in charge of the auto mechanics class has been returned to his old posi-
tion with the CCC as mechanic, and Mr. Earl Russell, in charge of the car-
pentry class, has been employed as a skilled laborer with the CCC.

Herbert R. Bennis and Samuel Milne, who have been serving as
acting camp director and project superintendent respectively for the past
six months, received their appointments as camp director and project super-
intendent in November.

Edward G. Wingate
Superintendent

FW - The following should have been included in that part of the report
dealing with the opening of the Volcano House. On the morning of the 8th
a large Army bomber flew over the hotel and also Hilo, scattering leaf-
lets wishing George Lycurgus and the Volcano House all success and aloha
from the Hawaiian Department of the US Army. We considered this a most
gracious gesture on the part of the Army.
Bedroom, new Volcano House, showing arrangement of bath and closets. Closets are arranged so that some rooms may be connected with the next. Instead of bureaus or chiffoniers in the bedrooms chests of drawers have been built into the closets.
Sitting room of one of the suites (of which there are 4) in the new Volcano House.
View of clubroom, new Volcano House
Lanai - sun porch - new Volcano House. This room is glazed in on three sides and faces Kilauea crater. At the time this picture was taken it was only partially furnished. The dining room may be seen in the far background. The lanai itself opens directly off the lobby.
Hina, younger sister of Pele, and Lohiau being engulfed by a lava flow sent by Pele in a fit of anger because of Lohiau's attentions to Hina.
This figure, modeled in cement, is over the fireplace in the lobby of the new Volcano House, and represents Pele, Hawaiian Goddess of the Volcanoes. Carving of this figure and that over the fireplace in the clubroom was done by Marguerite Blasingame of Honolulu. Picture was taken before work was completed.
Rey. Stephen Desha and a group of entertainers at the microphone during dedication program of the new Volcano House, sponsored by the Hawaiian Civic Club.
Sand dune in Eau desert moving through and over forest. The leeward front of the dune is shown here. The trees are all dead except those on the extreme left.
This shows the leeward front of the sand dune in the previous picture.
MEMORANDUM for the Superintendent:

The following is the Chief Ranger's report covering the activities of the Ranger Division for the month of November:

General Highlighted this month was the completion and formal opening of the new $125,000.00 Volcano House on November 8. The opening was accentuated with a national-wide radio broadcast on the "Hawaii Calls" program from KGB which originated in the hotel lobby and included a portion of the impressive opening ceremonies. Over 800 persons attended the ceremonies, dance, and buffet supper in the evening. Many island notables including Governor and Miss Poindexter attended.

At 10:00 p.m. on November 29, the efficiency of the Volcano District Emergency Police Guard, a civilian home-defense organization, was tested by a call to duty under conditions simulating actual emergency. Almost 100% turnout was effected and the organization, which includes park, CCC, hotel personnel, and picked civilian residents within a three-mile radius of park headquarters, worked remarkably well. Three, eight-hour shifts of guard and patrol duty were completed before the alert duty was finished. The spirit of enthusiasm and high morale of the members, many of whom stood 8-hour watches in the cold rain was commendable.

Maintenance Some work was done on the maintenance of trails, telephone lines, traffic counters, signs, etc.

Lecture and Guide Service Visitor contacts by the Ranger Division included the following:

17 tours, 4 hikes, 1 lecture at EMG and 1 lecture at Pauahi School to a total of 579 persons. Special groups included—a U. S. Navy destroyer, 2 groups of school teachers from the Big Island, a group of 60 Japanese of Hongwanji Sunday School, Notable visitors included Mr. Nolan B. Turner of the U. S. Board of Tax Appeals, George Armitage, Executive Secretary of the Hawaii Tourist Bureau, Capt. Jensen (retired) member of Traffic Safety Commission, Honolulu.

Increase in Travel A visitation increase of 214 persons over last month was shown.

Ranger Service Regular night patrol, flag, switchboard, museum duty,
and occasional road patrols were made throughout the month. Mounted or foot patrols were made to Hale'pe, Kauaie seacoast, Pepeiao, Great Crack, Kiiuaea Ild, and Hapu. The Kau Desert trail from Hilina Pali shelter to Uwekahuna via Pepeiao and Kamakahia was patrolled.

Assistance was given to one motorist during the month.

One hundred eighty-seven goats and three pigs were destroyed during the month by shooting and driving.

Rangers had night duty at three Volcano House dances during November.

Building Fire Protection One fire drill at the CCC Camp was well responded to and a fire drill at the park utility and residence area showed efficient operation by our fire fighting forces. A fire drill at the hotel brought out the fact that their alarm cannot be heard in the kitchen with the dish-washing machine in operation. CCC and hotel employees were instructed in fire-fighting technique.

Miscellaneous

Regular inspections of the explosives storage houses were made.

The Ranger Division participated in meetings of the following groups or committees: Tuesday Staff, Roads and Trails Committee, Automotive Committee, Research Committee, and Safety Committee.

On November 3rd, three jungle fowl, probably from Keauhou Ranch alighted at Uwekahuna Museum and were caught by the CCC boy on duty. They were removed from the park.

A communication from the Commanding Officer at KIC reported that a driver of one of the trucks hauling defense materials for Horse Field had failed to allow passing room. He was apprehended and interrogated and the matter will be brought before U. S. Commissioner Akau in Hilo.

George Lycurgus reported that some soldiers had stolen a cabbages board at the Volcano House. Lt. Adams at KIC was notified and made a search of the visitor’s barracks at that place. It was later learned that the board had not been stolen but misplaced and found.

Joseph H. Christ
Chief Ranger
Memorandum to Superintendent Edward G. Wingate
through office of Chief Ranger J. H. Christ.

The following narrative report of the Haleakala Section for the month of November, 1941 is respectfully submitted.

000 General 010 Introduction

The seismograph here recorded a series of earthquakes beginning on the 14th and lasting about two weeks. Some of the quakes were felt by the people of Maui.

On the 16th a small group of officers from the local Naval Air station and a group of local men and the Ranger in Charge here entered the bottomless pit in the crater. A cable was stretched across the opening and anchored to two steel bars driven deep into the ground. A pulley was attached to the cable over the opening of the pit and each man to enter was lowered by rope on a boatswain's chair with the use of the pulley and about five men on the other end of the rope. It was hoped that there would be evidence of ancient use of the pit as a place for human sacrifice but there was absolutely nothing in the pit's bottom to indicate that it had ever been used by the Hawaiians nor were there any tubes leading elsewhere from the bottom. The pit proved to be 60 feet deep. No publicity was given the trip.

020 General Weather conditions

Almost perfect weather was enjoyed here for the month. At the summit there were 22 clear days, 4 partly cloudy days, and 4 cloudy days. Rain fell on 3 different days to total 0.42 inches. The maximum occurred on the 5th and 13th and was 62 degrees. The minimum was 30 degrees on the 30th.

At the Ranger Station there were 21 clear, 7 partly cloudy and 2 cloudy days. Rain totalled 1.47 inches and fell on only two days. 71 degrees was the maximum temperature which occurred on the 15th while 40 was the minimum occurring on the 30th.

The measurements of the rain gauges at the shelter houses in the crater are not yet available.

100 Administration 150 Equipment and Supplies

Dump truck #794 was sent to Kilauea section and #793 was sent here in order to give us an overhauled truck and to enable the park mechanics to overhaul our truck. Park mechanic Fujimoto overhauled car #786 and did some work on #782 at this section of the park. A spare power plant was also installed here in order that our regular plant might be overhauled.
200 Maintenance, Improvement and New Construction

240 Improvement of approaches to the park

At the request of the Army Engineers the highway leading into the park here is being widened on some of the bad turns on Puu Hianiau. The paved portion is being left as is but the bank is being taken out and passing room will be improved. It is hoped that this work will be continued on some of the other bad stretches.

300 Activities of other agencies in the park 310 Public Service contractors

311 Character of service rendered to the public

No service was available at the Panaao Observatory's Maui Grand Hotel concession this month. No parties were conducted through the crater by the Hotel guide.

320 Cooperating government agencies

Progress on the Army camp and detection station at the summit has been slow this month. Lack of materials has slowed down the construction so badly that there is little noticeable difference in the construction at the end of this month as compared to the end of October.

400 Flora, fauna and natural phenomena 410 Ranger, naturalist and guide service

A group of about 12 men from the local Naval Air Station are being conducted thru the crater with a one night stop at one of the rest houses every other week. The recreation head of the local unit has a hard time finding recreation for all the boys on Maui and has expressed his appreciation for the Park Service help along these lines. The men taken in so far have enjoyed the trip very much. Some of them wish to go again if twelve men cannot be found to make the trip at any time.

500 Use of Park facilities by the public 510 Increase or decrease in travel

This travel year to date is just double that of last year. A surprisingly large number of sunrises have entered this month. The weather has been perfect and the sunsets and sunrises have been at their best with high clouds in the sky most of the month.

600 Protection 640 Destruction of predatory animals

No goats were killed this month in the crater. Although three trips were made around the crater no animals were seen. The cause of this is unknown but it is hoped that consistent shooting of goats and running them out over the rim has caused them to change their feeding grounds.

Frank A. Hjort
Ranger in Charge
Information for FIV-1

Visitors out of Territory---------- 121
Visitors from Territory-------------2259

Campera-------------------------- 34 (spent 34 camper nights in shelters)
Sightseers-----------------------2346

2380
MEMORANDUM

December 3, 1941

MEMORANDUM for the Superintendent through the Chief Ranger.

The following is my narrative report for the month of November.

Routine patrol, flag, switchboard, and museum duty was accomplished.

Five park tours, one hike, and one lecture were conducted for a total of 115 contacts.

Three days were spent in hunting goats and six were killed.

Routine telephone instrument repair and maintenance of traffic counters was carried out. A feedlot range burner at the Superintendent's house was replaced and a broken wire in the light circuit was repaired. A ground wire was installed on the refrigerator motor in order to eliminate radio interference.

I served as ranger on duty at the Junior Chamber of Commerce dance at the Volcano House on the 22nd. I also served on alert duty on the 29th. and 30th.

Routine building inspection work was carried out. Engineering assistance was given the CCC organization in completing the Volcano House road and in making the survey for the installation of the Volcano House collection line.

Assistance was given the park operator in checking utility installation in the new building and in making preparations for the opening.

A meridian for orientation of the direction finder at the local FCC station was established by a polaris observation. U. S. Geological Survey B. M. 3632 on the east side of the Maumalaa Highway near the edge of the Kamuokoa Lava Flow was recovered and found to be in good order.
B. M. 2836 below the Halfway House was also recovered and found to be in good condition.

A drawing and description of the new Volcano House lease was prepared and copies furnished the insurance agents for their use.

Personal attention was given to Mr. Bolan E. Turner of the U.S. Board of Tax Appeals who was a visitor at the Volcano House on the 29th. He was a member of a regular tour and a guest of the Volcano House for lunch.

Arthur L. Jett,
Park Ranger.
UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
HAWAII NATIONAL PARK
HAWAII

December 5, 1941

MEMORANDUM for the Superintendent through the Chief Ranger:

My ranger's narrative report for November follows:

CONTACTS: Nov. 1, tour for 2 friends of Joseph Akau--3 hours.
Nov. 5, KMC tour for 39--2½ hours.
Nov. 7, Mauna Iki hike for 8--3½ hours.
Nov. 15, Bird Talk at Kamuela School for 150--½ hour.
Nov. 16, Tour to Hilina Pali for Mr. & Mrs. Geo. Armitage,
Miss Dodge and Mrs. Castle--3½ hours.
Nov. 28, Kilauea Iki hike for 3--3½ hours.
Nov. 29, Tour and Puu Huluhulu hike for Hilo Teachers
Assn., with Ranger Jean of 90 for 3½ hours.
Nov. 30, Mauna loa tour for 7--2½ hours.

MISCELLANEOUS: I returned from Maui to Headquarters on Nov. 1 after
two weeks' duty there as acting Ranger in charge.
Notification of my promotion to Assistant Chief Ranger effective Nov. 5,
was a much appreciated and pleasant surprise.
I attended the new Volcano House opening ceremonies on Nov. 6.
A proposed connecting trail between the Kilauea Iki and Crater Rim
Trails was staked out.
Several days were spent goat-shooting, during which time I accounted
for 99 goats.
On a three-day goat-shooting trip, patrols were made to Kona seashore,
Halape and Papeau.
A break in the KMC telephone line was repaired and wire barricades
were placed across a short-cut road between the Mamalahoa Highway and the
Bird Park Road on Nov. 26.
Regular meetings of the Journal Club, Manuiki Society and Hawaiian
Classes were attended.
Assistance was given a car in trouble on the Kilauea Rim Road on the
night of Nov. 28.
Corrections of road and trail mileages were made in the KMC Digest
of Information.
The Emergency Police Guard alert duty simulating actual emergency was
participated in.
The various routine duties of 24-hour duty, night patrol, flag duty,
nursery work, museum duty and patrols were done as scheduled.

Wildlife Observations: On Nov. 12, 9:00 a.m., a rice bird was seen
feeding 2 fledglings in a small ohia tree near the park nursery.
On Nov. 19 a flock of about 50 small shorebirds believed to be snipe was seen at Kaone. A flock of 11 akakeke or turnstones was also seen. A flock of 8 shorebirds about the size of kólea with black heads and white below and grey above were seen at the same location. On the morning of Nov. 27, 8:00 a.m., a full-grown io or hawk in dark plumage was seen along the "wahalehoa Highway near the Smith cottage at Headquarters. It was quite tame, moving only a short distance from tree to tree when approached.

Nursery: Planted this month; 1 flat (115 seeds) halapepe; 1 flat (experimental) tree alfalfa (250 seeds), these germinated in less than two weeks and are now two inches high. 1 flat (30 seeds) Haleakala red geranium. Two have germinated. (200 seeds) Haleakala silversword. Two have germinated. 1 flat (100 seeds) beach naupaka. 1 flat (100 seeds) Haleakala íliahi. 1 flat (500) seeds) olomea and (100 seeds) halapepe from a different location and cured and in a different manner from other halapepe. Transplanted this month: 8 kauila; 25 papala kepau; 7 alani; 6 uki (dianella); 16 naio; 48 kopiko; 37 lama; 1 kokio; 1 akala; 4 mamani; 6 kou.
One íliahi planted several months ago has germinated from the seed collected at Kilauea. Damp-off disease got most of the kou, milo and noni, indication that this location is too damp and cold for them.

Gunter E. Olson
Asst. Chief Ranger
UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
HAWAII NATIONAL PARK
HAWAII

December 2, 1941.

Memorandum to the Superintendent through the office of the Chief Ranger

Subject: Narrative report for the month of November

Routine
These assignments for the month include: switch board, patrol, night check, museum and flag duty.

Miscel
My activities varied considerably, depending on necessity or occasion such as, telephone line repairs, painting miscellaneous signs and erecting same at their proper place, measuring the mileage of the Kau Desert Trail from Uwekahuna to Mauna Iki, Hanaika, Pepeiau, and Hilina Pali, drafting maps for the Chief Ranger, assisted Naturalist Fagerlund in taking pictures at the Volcano House opening ceremonies, taking 10 horses and 1 mule from Park Corral to Hilina Pali via the Kau Desert, erecting wing fence of goat corral at the Pali, 4 days driving and hunting goats, removed fallen tree from across the Kilauea Iki Trail near the Lava Tube, in the absence of the Ast Park Naturalist on Nov 21st I gave RMO orientation talk, took part in defense patrol, etc

Contacts

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<th>Date</th>
<th>Activity Description</th>
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<tr>
<td>Nov 1st</td>
<td>Inter Island Tour, 0 buses-2 cars, 5 people, 12 hrs</td>
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<td>BMO Orientation Lecture</td>
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<td>Mauna Loa Tour</td>
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<td>24th</td>
<td>Bird Park Hike</td>
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<td>29th</td>
<td>Inter Island Tour</td>
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</table>

Wild Life
An Io (Hawaiian Hawk) was seen in the vicinity of "6 Tanks", it did not appear to fear a human being as I was able to walk past within 30 feet of it. The CCC boy on duty at the museum called me stating there were 3 stray chickens in front of the building and one was bold enough to walk inside. Upon investigation I found them to be jungle fowl, apparently some that had wandered from the flock of 200 recently released on the Anahou Ranch.

Outside Activities
Attended 5 Hawaiian Language classes at the Park Headquarters
Attended 1 meeting of the Toastmasters Club at the Hilo Hotel
At Col Eckland's invitation, I took part in the Hilo Rodeo on Nov 11th (continued)
UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
HAWAII NATIONAL PARK
HAWAII

Comments
An increased amount of defacing of signs has been noted, also a number of "Stop" signs have maliciously been pulled out and damaged.

Suggestions
Continuation of public speaking classes, staff personnel participating.
In view of the fact the Park possesses a number of mares that are aged and will soon be useless for riding and pack animals, I heartily recommend at least two of these horses be serviced until in fold. This could be continued until such a time or until a sufficient number of good colts were available to replace those not fit for further service. Feasibility of this question and reasons for this suggestion is too lengthy to enumerate in this report. I have had considerable experience with horses and now familiar with conditions in the park and will state, the above could be easily accomplishment without affecting park efficiency. The cost of such procedure would be zero.

Charles W. Miller
Ranger
Memorandum for the Superintendent

Report of the Hawaiian Volcano Observatory for the month of November

Activity at Mauna Loa and Kilauea volcanoes was confined to the usual fumarolic and volcanic-steam localities. 458 separate earthquakes were recorded on the various Observatory instruments. The majority of the shakes originated near Waimea on the northeastern slope of Mauna Kea at an elevation of about 2900 feet. The stronger ones shook not only the entire island of Hawaii but were felt on Oahu. The strongest shake of the series which occurred at 2.56 am Nov.18 caused some landslides in the northeastern part of the Island of Hawaii and minor damage in a few localities.

Tilting of the ground for the month was slight to the east-northeast.

Some of the quantitative data obtained during the month is shown in the following table:

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<tr>
<th>Week ended</th>
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<th>Crack movement</th>
<th>Seismicity</th>
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Work of R. H. Finch

Owing to the absence of P.E. Schulz a large part of the time for the first eight days of the month was taken up with seismological routine. The sensitivity of the vertical seismograph was increased and it is now proving to be a very valuable instrument. Forms for the roof over the old observatory basement were removed during the month and the instruments there are again giving reliable records after months of disturbance caused by the construction of the new hotel. On Nov. 19 a trip was made to Kona and Waimea to adjust the seismograph at the former place and to look for surface breaks from the earthquakes at the latter locality. A trip was made to Waimea and the rest house on Mauna Kea with Park Naturalist
G. O. Fagerlund on Nov. 21 and 22. Observations indicate that the cinder cones on Mauna Kea may be aligned along both radial and concentric rifts. Work was resumed on the Observatory-Naturalist building during the latter part of the month.

Work of P. E. Schulz

Mr. Schulz was on leave for the first eight days of the month. After the earthquakes at Waimea started on Nov 18 measurement of seismograms precluded almost all other work. The plotting of tilt, seismicity, and crack changes however, was kept up to date. One illustrated lecture was given at the Kilauea Military Camp.

Work of B. J. Loucks

Aside from the regular routine of changing seismograms, and crack measurements his time was taken up largely as follows:
On shop equipment 56\% hours
On trip to Kona and Waimea 1 day

R H Finch
Volcanologist
MONTHLY REPORT OF CAMP DIRECTOR HERBERT R. RENNIE TO PARK SUPERINTENDENT EDWARD G. WINGATE FOR THE MONTH OF NOVEMBER, 1941

We enrolled five (5) new boys and discharged thirteen (13) of which seven (7) were for expiration term of service, three (3) for securing employment, three (3) for desertion and one (1) as a transfer to Camp NP-10 Quinnault, Washington.

There was an average of seventy four (74) enrollees released to the Project Superintendent during the month. One thousand three hundred and thirty-six (1336) man-days were utilized on all projects.

The doctor reports a decided improvement in the appearance of the grounds, buildings and latrines.

The safety assistant reports all safety features are being followed out.

A Thanksgiving dinner was held on the night of the 19th. A few guests were invited.

Several foremen meetings were held with the idea in mind of getting over to them the necessity of reporting to the project superintendent, infractions of rules and regulations occurring on the projects. Not one report has been turned into the office since this meeting.

Two safety meetings were held during the month.

JOB REPORT

Job 46. A goat drive was conducted utilizing 71 man-days. There is still a balance of 55 man-days.

Job 54. Work has been commenced on the observatory building and is progressing satisfactorily. 97 percent is being reported as completed.

Job 63. Minor road is now 70% completed.

Job 72. Landscape development is 72%. The work has progressed very satisfactorily.
Job 77. The seismograph cellar has been completed leaving the terrace yet to be finished. Slow progress has been done on the terrace until recently when a proper method of laying the flag stone has been worked out. This project is 60% complete.

Job 81. The Volcano House Garage is now 100% completed and a completion report will go in directly.

The repair of the Camp buildings is going on satisfactory under the direction of E. L. Russell, carpenter instructor.

The Defense Training classes were discontinued as of November 29, 1941. S. Nakamura has been put on as mechanic on the CCC regular payroll and Mr. Russell has been put on as skilled employee chargeable against the overhead account.

Respectfully submitted,

Herbert R. Rennie
Camp Director, CCC HNP
MEMORANDUM for the Superintendent

December 4, 1941

Subject: Foreman's monthly report for November, 1941

Routine maintenance work such as janitor work, roadside clean-up, sanitation, garbage disposal, wood and kerosene delivery and pumping water was carried during month. Other work accomplished is as follows:

104 Assisted in shoeing horses for goat drive.

201 Painted kitchen and rear bed room at quarters #19. Installed new drain board and repaired rear screen door at quarters #17. Installed new drain board at quarters #15. Painted out writing on walls of lava tube toilet. Started painting interior of main office.

202 Graded drive-way at quarters #1. Graded new Hilina Pali road from chain of craters junction to Kipuka Rd. Completed paving ditches on Keanaeaki hill. This work was accomplished 97 cts per sq. yd. this year against $.90 last year.

206 Completed our portion of the stone wall at new Volcano house.

207 All lawns were cut and gutters cleaned during month.

211 Sewer lines at quarters #22 and #6 were unclogged.

Miscellaneous: Gathered Mail and prepared six leis. Laborer Keina resigned to accept position with U.S. Engineers. I undersigned attended the following committees, safety, roads & trails, and automotive. On the night of November 29, 1941 at approximately 9:40 P.M. I was called out by the emergency police guard and stationed at the park pump house through the night.

Respectfully Submitted

Foreman of Construction & Maint.
MEMORANDUM FOR THE SUPERINTENDENT.


Census

Thirty-nine regular counts were taken on eleven census plots from 7400 ft. to Hilina-Pali. Correspondence was carried on with Mr. Roy Roberts about securing the assistance of a statistician for the analysis of the census data collected to date.

Life History

Observations made in Kipuka Kulalio on banded birds revealed a heightening of song, fighting, and aggressive behavior indicating the beginnings of the sexual phase of the life cycle of the amakihi. Notes on territory holding and other matters were obtained.

A single nene was found occupying 3-trees kipuka on November 28. Signs indicated he had been here for several days. Notes on his method of foraging were made, including plants eaten. Trapping was carried on, and field records were typed for the file. Reference reading was done on life histories.

Food habits

Nene droppings were collected from 3-trees kipuka, and direct observation was made of food plants chosen while foraging.

One pheasant with full crop was brought in killed by a motorist.

Reconnaissance

Three days were spent in the lower Ohia forest at Apua and in the vicinity of the Kalapana trail in search
of the Akepa (Loxops). It was located successfully each trip, and additional information concerning its range and habitat was obtained.

Miscellaneous

The main work on a supplementary checklist to bring together and summarize new records for 1941 was completed. This will be submitted early in January, 1942.

One Manuiki Audubon Society, two Toastmasters, and one research committee meetings were attended. One park tour was accompanied, and one visitor conducted through the Koa forest.

Respectfully submitted,

Paul H. Baldwin
Senior Foreman (Wildlife) CCC
<table>
<thead>
<tr>
<th>Date</th>
<th>Census</th>
<th>Life History</th>
<th>Food Hab.</th>
<th>Recon.</th>
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<th>Hours</th>
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UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
NATIONAL PARK

FILE NO.

MONTHLY REPORT

OCTOBER 1941

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.
MEMORANDUM FOR THE DIRECTOR:

Following is the report of activities of Hawaii National Park during October.

Introduction

October was an extremely busy month for all regular and CCC employees in the park. Vacancies on the regular staff, the special session of the Territorial Legislature, continued rainy weather which hampered field work, low enrollment in the CCC, the necessity to push to completion as much of the work about the new hotel area as possible before the opening on November 8, and plans for the opening celebration, all conspired to place an extra burden on those on duty.

The superintendent was kept busy complying with requests from members of the Territorial Legislature for information and data in connection with bills introduced by members of the Hawaii County delegation for the purpose of implementing the Act of Congress which authorized the Kalapana addition to the park. One bill, House Joint Resolution No. 7, directing the Commissioner of Public Lands to acquire by exchange, purchase or condemnation the remaining privately owned lands in the authorized addition, passed both houses but was vetoed by the Governor. A similar resolution, but containing a small appropriation for land purchase was introduced and after passing both houses was recalled on the last day by the Senate with the consent of the House for the purpose of amendment but instead the Senate then tabled the bill. It was explained information had been received that certain persons had acquired options on some of the private land with a view toward profiting through the land exchanges. Mr. George Lycurgus made a special trip to Honolulu to appear before the committee on behalf of the bill.

Constant supervision was given by the superintendent, assistant to the superintendent and building inspector to CCC jobs in progress in the new hotel area.

Weather Conditions

There were no days without some rain during the month, though there were three on which only a trace was recorded. Total precipitation amounted to 15.21" at Kilauea; at the Haleakala ranger station 12.77" and 9.85" at the summit observation station. A fall of 42.8" at Paliku in the Haleakala section was recorded. A light snow was noted on the summit of Mauna Kea October 25.
Special Activities

The superintendent was at headquarters the entire month. Only one field trip was made, to Kipuka Rene on the 12th. Much of his time was taken up with matters connected with the opening of the new Volcano House which is scheduled for November 8.

Assistant to the Superintendent Moomaw attended a meeting of the Hawaii Island Traffic Safety Committee on October 6.

Assistant Park Naturalist O.O. Pagerlund left for Honolulu on the 19th where he remained for the balance of the month, working on the museum exhibit plan and consulting with specialists on other matters pertaining to naturalist activities. During his absence most of the interpretive work in the park was handled by Assistant to the Superintendent B.F. Moomaw, Jr.

General Publicity

One press release was issued regarding the finding of a "bottle paper" on one of the beaches near the park and turned over to this office for submission to the Hydrographic Office in Washington. This bottle was thrown in the Pacific by Capt. E.R. Johnson of the "Monterey" about halfway between Honolulu and San Francisco on October 4, 1940, and was found September 28, 1941, after drifting 1000 miles in 61 weeks.

At the request of officials in charge of the Maui County Fair (held October 9-11) an exhibit was entered from the Haleakala section of the park. The exhibit consisted of a display of native plants, including several silverword, a relief model of Haleakala crater, lava bombs, aa and pahoehoe lava, and floating rocks. The exhibit was received with great enthusiasm, many of the visitors expressing their appreciation of such a display. Out of about 20 exhibits in the commercial building the park booth won honorable mention, equivalent to second place. Ranger Arthur L. Jess was sent to Maui to assist Ranger Hjort in arranging and explaining the exhibit.

New Construction

The entire CCC construction crew concentrated on various projects connected with the new Volcano House, such as the driveway (job 63), landscape development (job 72), seismograph cellar and terrace (job 77) and the garage (job 81). The driveway and stone wall and garage will be finished in time for the opening of the hotel, but the landscaping and terrace will take longer.

Park Operators

Plans were initiated for the program in connection with the opening of the Volcano House, November 8. It is expected there will be a radio broadcast as part of the regular Hawaii Calls program in the afternoon, and in the evening a dinner dance and Hawaiian entertainment.
The following editorial paragraph which appeared in the Honolulu Advertiser for October 9, 1961 might well be an article regarding the present building: "The completion of the new Volcano House is an event of some importance to the traveling public, who will now find a handsome, commodious house fitted with every convenience that can be desired."

Cooperating Governmental Agencies

Work on the Army projects at Haleakala is progressing rapidly.

Lectures, Guide Service & Interpretive Contacts

Three parties were given special attention—a group from the US Engineers' Office Hilo, members of the Fernandes Circus, and officers and men from the USS Dunlap. Six outside lectures were given.

Research and Observation

During the last week of the month there were 30 seismic disturbances mostly of Kilauea origin. Crack measurements showed that the movement of fault blocks around Halemaumau that was accelerated by the earthquake of September 25, gradually decreased during October until by the last of the month only very slight movement was noted.

CCC Senior Wildlife Foreman Paul H. Baldwin reports that information is rapidly accumulating which will allow a much improved understanding of the life history phenomena of the native birds.

As an item of unusual interest, Ranger Jess brought in an amakihī (Chlorodrepanis virens) which proved to be a unique color variant. Orange feathers were interspersed among the usual green ones in the breast and head regions. Nothing is known of another amakihī taken showing this color variation. It may be a throwback and as much may indicate a close genetic relationship to the genus Zosterops, in which some of the birds are orange and some green.

An interpretive book on birds is being planned by Mr. Baldwin. It is his intention to present as much information as possible on how the old Hawaiians used birds in their economy, social customs, and religions to present briefly the story of the origins of the Hawaiian bird fauna; to relate interesting details of the life history work being done now; and to tell where the different birds are to be found today in the national park forests.

Increase or Decrease in Travel

Travel to Kilauea amounted to 26,864 visitors as compared with 17,792 for October 1940 and at Haleakala the ranger in charge reports 3465 visitors as against 1630 for last year.
Visitors

October 8. Mr. and Mrs. Raymond Hanson of Los Angeles. Mr. Hanson is executive of the 12th Region S.A.A., inspecting the local scout councils within the islands. He was accompanied by Mr. Wade Warren Thayer of Honolulu and Mr. Harold Arnold, local scout executive. On the 12th Assistant to the Superintendent Moomaw met the party at the Pohakiki Boy Scout camp and spent half a day with them.

October 26-27. Dr. and Mrs. J.C. Wright, Office of Education, Washington. Mrs. Caroline Edwards and Mr. W.J. Beers, Department of Public Instruction, Honolulu. This party was inspecting the National Defense Vocational Training work in the Territory. They were contacted by the superintendent and escorted around the park and the CCC camp by Assistant to the Superintendent Moomaw.

Ranger Service

Recommendation was made for the transfer of park ranger Francis Crouch from Isle Royale National Park to Hawaii.

At the request of authorities at Kilauea Military Camp, a search was started, in a driving rain, for two soldiers reportedly lost in the vicinity of the Lava Tube. It later turned out these men caught a ride and hitch-hiked around the island. For the trouble they caused they were each made to buy two Defense Bonds each and were given extra work on the woodpile for the remainder of their stay.

Ranger Gunner E. Olson was on Maui between the 16th and end of the month, as ranger in charge of the Haleakala section, while Ranger Hjort was in the hospital.

Building Fire Protection

Fire Prevention Week was observed. Fire drills were held at the Volcano House and at the CCC camp. All flues and water heaters in the park residential area were cleaned, and all rubbish removed. A sanitary inspection was held at the CCC camp.

Accidents

On October 13, a man by the name of Joseph Sniffen was badly injured, when the motorcycle he was riding the road from Haleakala crater suddenly swerved and went over a six-foot drop. Injuries consisted of a fractured arm, several head lacerations and many bruises. The motorcycle was not damaged.

Miscellaneous

CCC. Ten boys were enrolled and 20 discharged, 20 of which were for expiration of term of service, 9 for securing outside employment and 1 for returning to school.
A son, their second child, was born to CCC Foreman and Mrs. Alexander Janiak, the latter part of October.

Edward G. Wingate
Superintendent
National Park exhibit, Maui County Fair. This exhibit received much favorable comment and was awarded honorable mention, equivalent to second prize.
MEMORANDUM for the Superintendent

The following is the Chief Ranger's report covering the activities of the ranger division for the month of October.

Work for the month was confined to normal routine. Ranger Jess was on Maui from the 5th to the 14th, and Ranger Olson from the 15th to the 31st. Ranger Hjort was operated on the 14th for the removal of a colon obstruction and made a satisfactory recovery.

Weather Conditions. Rainfall for the month was 13.66 inches. Rainfall for the period January 1 to date is 59.43 inches. Water storage is satisfactory. An unusually rainy period was experienced during the first half of the month, but reasonably good weather was in effect during the last half. A fall of 42.8 inches was recorded at Paliku in the Haleakala Section.

Maintenance. Routine maintenance of trails, telephone lines, traffic counters, and signs was accomplished.

Lecture and Guide Service. Public contact work by members of the division is as follows:

- 16 park tours for 468 persons
- 6 hikes for 99 persons
- 3 lectures for 507 persons

Special visitor groups included the U. S. Navy and Fernandez Circus.

Decrease in Travel. Figures for the month show a decrease of approximately 600 cars as compared with those for September.

Ranger Service. Routine night patrol, flag and switchboard assignments were carried out. PatROLS were made to the summit of Mauna Loa, and the seacoast areas of Aua and Kahue. Assistance was given to two motorists during the month.

Forty-six goats were destroyed during the month. Goat traps have been constructed in the Kipuka Aku area preparatory to holding a general drive.

A lost soldier was searched for on the 6th.
A request for lectures on the natural features of the park by the principal of Paauhau School was answered.

A light fall of snow appeared on the summit of Mauna Loa and Mauna Kea on the 25th.

Building Fire Protection. Fire Prevention Week was observed. Fire drills were held at the Volcano House and at the CCC Camp. All flues and water heaters in the park residential area were cleaned, and all rubbish was removed. A sanitary inspection at the CCC Camp was held.

Miscellaneous. The holes in the road surface on the Mamalahoa Highway beyond the Kea Entrance have been repaired.

Mr. M. A. Maloney of Independence Missouri visited the park for the first time since 1911 and stated that he could hardly recognize the place.

Joseph H. Christ
Chief Ranger

CC - Chief Ranger
MEMORANDUM FOR THE SUPERINTENDENT THROUGH THE CHIEF RANGER.

A narrative report of my Ranger activities for the month of October, 1941, follows:

Contacts were as follows:

Oct. 2, EMG tour for 76 persons.
Oct. 4, I-I Tour for 53 persons.
Oct. 5, Mauna Loa Tour for 12 persons.
Oct. 9, Illustrated Bird Talk for 450 at Honokaa High School.
Oct. 9, Illustrated Bird Talk for 30, Hanakua Womens Club at Honokaa.

Miscellaneous duties were as follows:

Oct. 3: A trip was made to Poli o Keawe pali at the end of the Hermit Trail via the old trail from Alaka'i Ranch headquarters. This trip was made with the Chief Ranger; about 75 goats were seen.

Oct. 5: A car with transmission trouble was towed out of the park from the Chain of Craters area.

Oct. 6: Assisted in a hunt for 2 lost soldiers.

Oct. 7: Prepared and submitted a list of books needed for the park library, for the Hawaii Natural History Association.

Oct. 9: Went to Honokaa with Mr. Fagerlund and delivered talks at Honokaa High School and Honokaa Library.

Oct. 10: Called a meeting of the Roads and Trails committee which acted on various matters covered in a separate report.


Oct. 26-27: Trip to Pali Lookout via Sliding Sands Trail, returning via Halemau Trail. The trails were noted to be in good condition;
the Halemau-u Trail showed signs of some trail-surface erosion during the past 4 years, but was otherwise in excellent condition. The cabins show frequent occupation but no excessive abuse of them was seen.

Wildlife observations were as follows:

A large io with white breast was seen flying in Kilauea Iki crater on Oct. 2, at 9:00 a.m. Another hawk was heard calling at Poli o Keawe pali at noon, Oct. 3.

On Oct. 22, a grove of "Tree Alfalfa" (Cysitis proliferus) in the Haleakala Ranch lands below Puu Nianian, Haleakala, was visited. The grove was in full bloom and literally full of birds of all kinds. No attempt was made to count this unusual concentration, but a nominal estimate of 111 in this 5-acre grove would exceed 100 individuals. Some seed of "Tree Alfalfa" were collected with the intention of germinating them and turning them over to the Manukid Society for distribution. Since this tree is now definitely known to be a favorite with native birds, it is hoped that through the cooperation of the Territorial Forester and the various bird clubs, "Tree Alfalfa" can be more widely planted with the purpose of causing a wider distribution of the native species of birds. This problem will be brought to the attention of the Manukid Society at tonight's meeting.

Seeds of the exceedingly rare native red geranium were collected at Haleakala for germination at the nursery. If these are successfully sprouted, they should be shipped back to Haleakala for planting in the park there.

Gunder E. Olson,
Park Ranger.
UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
HAWAI'I NATIONAL PARK
HAWAI'I

Memorandum to Superintendent Edward G. Wingate
through office of Chief Ranger J. H. Christ.

The following narrative report for the Haleakala Section for the month of October, 1941 is respectfully submitted.

000 General 010 Introduction

Haleakala Section of the Park entered an exhibit in the Maui County Fair the 9th, 10th, and 11th of this month. The exhibit consisted of a display of native plants from the crater including several specimens of silversword arranged in cinders and rocks in a trough around the sides of the 16' X 16' booth with a model of Haleakala Crater in the center. Lava bombs were shown as well as both Aa and Pahoehoe lava, and floating rocks. All items of both plants and rocks were labeled and all questions asked were taken care of by the rangers present. The exhibit was received with great enthusiasm by nearly every visitor, many of whom expressed their appreciation of such a display. Out of about 20 exhibits in the commercial building the Park booth won honorable mention—which is equivalent to second place as only first prize and an honorable mention are awarded.

Park Ranger Al Weiss came over from the Kilauea Section to assist with the fair. He arrived on the 6th and departed on the 14th.

Park Ranger G. E. Olson arrived on the 15th to act as Ranger in Charge while Ranger F. A. Hjort was on sick leave due to an operation. Ranger Olson is attempting to leave on this date, the 31st, but after going to Lahaina on the 28th only to find the boat on strike at Honolulu anything can happen so it is not safe to say when he is leaving.

020 General Weather Conditions

As far as viewing the crater was concerned during the fair week and most of the rest of the time the weather situation could be summed up by saying it was terrible. The crater was visible for only about two hours during the entire fair.

At the Ranger Station there were 6 clear, 11 part cloudy and 14 cloudy days. The maximum temperature was 78 and the minimum was 37. They occurred on the 31st and 26th respectively. It rained on 10 different days to total 12.77 inches.

At the summit there were 9 clear, 8 part cloudy and 13 cloudy days. The maximum was 80 on the 3rd; the minimum was 32 on the 12 and 26th.
The rainfall at Holua was 8.44 inches.
   " Kapaloea"18.40 "
   " Paliu "42.80 "

100 Administration

Several thousand park bulletins were distributed at the Maui County Fair.

300 Activities of other agencies in the park

No service was rendered the public in this section of the park this month by the Maui Grand Hotel.

380 Cooperating Government agencies

The Army has the cottage at Red Hill nearly completed and the tower on the extreme summit is in the process of being erected. It is about 44 feet high. Work has been started on the dam and reservoir temporary road at the 7500 foot turn of the road.

400 Flora, fauna and natural phenomena

No trail parties were conducted through the crater by the Maui Grand Hotel.

490 Miscellaneous

Ranger Olson made a trip into the crater and reports that all vegetation is in fine shape after all the rains. He also stated that the manami growing along the base of Mauna Hina and below the Honokahua Cone is in full foliage all the way to the ground with many young plants showing up. This indicates that the goats are not eating them as they did in the past.

500 Use of Park facilities by the public

Travel for this month increased 154% in spite of bad weather most of the time. Increased Navy personnel on the island plus a large turnout for the Fair is believed to be responsible.

600 Protection

On the 13th at 12:30 P.M. Joseph Sniffen, 31, Male, Hawaiian accompanied by 4 other men all on motorcycles were coming down from a trip to see Haleakala Crater when somehow his motorcycle swerved too far to the right of the highway and went over a six foot drop off. Sniffen received a fractured arm, several head lacerations, and many bruises. His motorcycle was only slightly damaged. The accident occurred about ½ mile above the 8,000 ft. turn in the same place the accident of June 16, 1940, involving a Ford coupe and 3 men, occurred. Sniffen was rushed to the Kula Hospital by friends. His motorcycle was stored in the park garage until called for.

640 Destruction of predatory animals

Eleven goats were destroyed in the crater this month.

Frank A. Hjort, Ranger in Charge
Information for FPU-L

Visitors:
From out of Territory 167
From Territory 3228

Campers 5
Sightseers 3450
MEMORANDUM for the Superintendent through the Chief Ranger.

The following is my narrative report for the month of October.

The highlight of the month was my trip to Maui on the 5th where I assisted the ranger-in-charge in putting on an exhibit at the Maui County Fair. This was a very instructive and enjoyable trip. I had the opportunity of looking over some of the construction work being done by the Army, and made an inspection of the material contained in the 666 barracks at Haleakala Ranger Station. The highway within the Haleakala section was found to be in good condition. I returned to park headquarters on the 15th.

Routine building inspection and engineering work was accomplished during the month. First order leveling bench marks W-1 at Mountain View, Z-1 at Olaa, and B-2 at 4 Mile Bridge were recovered and found to be in good condition.

My assignments to park tours, flag, and switchboard duty were carried out. Three park tours, one lecture, and one showing of the film, Krakatoa, aboard the USS Dunlap were accomplished for a total of 198 visitor contacts.

Arthur L. Jess
Park Ranger.
Memorandum to the Superintendent through the office of the Chief Ranger

Subject: Narrative report for the month of October

Routine

My routine activities for the month included regular assignments at flag duty, switch board, night check, museum duty, etc.

Misc. Duties:

- Repairing, painting and erecting miscellaneous warning, destination, regulatory and directional signs;
- Working on 1943 estimate for account NO 222, rebuilding trail measuring wheel, taking care of the nursery in the absence of the Ranger in charge, measuring the length of the Ku Desert Trail from Uwakahuna Museum to Hilina Pali, telephone repairs, etc.

Contacts

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Outside Activities

- Attended Hawaiian language classes at the Park Headquarters.

Comments

With reference to the recent Washington memorandum, which suggested or requested the staff to alternate weekly and understudy the various department heads and departmental activities that each individual of the staff is familiar with the other parties work in the event of an emergency; the efficiency of any department will not be affected. I would like to call your attention to the matter as adherence to this memo seems to have bogged down. To date I have had the opportunity to completely understudy the routine of the Asst. to the Sup't.
and a few pointers in the Chief Clerks office or I have received training only in the administrative department. The other departments in the park have not received any consideration. The present world conditions are not improving, but continue to become more acute. In the event of an emergency the members of the staff would be seriously handicapped in assuming additional duties to those now performing through lack of training.

Charles W. Miller
Ranger
MEMORANDUM for the Superintendent:

Subject: Report for October.

Weather Conditions

The month that began as typical "Volcano weather" ended with beautiful blue skies, high temperatures and no rain. It was ideal for the work in progress.

Special Activities

During the month the writer compiled the annual summary of complaints for submission to Washington. A grazing report was prepared for Region IV to be consolidated in San Francisco with reports from other parks for a regional study.

Work was continued on the building inventory. This project is about 70% complete for the Kilauea-Mauna Loa section, but so far we have received no data from the Haleakala section.

The writer spent some time in preparing to attend the Service conference in regional headquarters. Mrs. Moomaw and "Benjie" are to accompany the writer to the mainland for a visit with both of our families in Virginia.

Plans were initiated for the quarterly meeting of the Hilo Federal Business Association to be held at the new Volcano House November 15.

Assistant Naturalist G.O. Fagerlund left for Honolulu on the 19th on official business, leaving the administration of the naturalist activities to the writer. Considerable time has been devoted to this work since that date. Mr. Fagerlund is expected to return to headquarters November 5.

General Publicity

One press release was prepared regarding a "bottle paper" found on one of the beaches near the park and turned over to this office for submission to the Hydrographic office in Washington. This bottle was thrown in the Pacific by Capt. E.R. Johnson of the Oceanic liner Monterey about halfway between Honolulu and San Francisco on October 4, 1940 and it was found September 28, 1941 after drifting about 1000 miles in 51 weeks.
The naturalist schedule for November was arranged and submitted to the local newspapers and other interested persons and groups.

New Construction

Work on the Volcano Observatory and Naturalist Building was halted in order to speed up or complete CCC projects incidental to the construction of the Volcano House. These various jobs are proceeding satisfactorily.

The writer recommends that no new jobs be started until we finish the minor Volcano House projects now being installed and the Volcano Observatory.

Lectures, Guide Service and Interpretative Contacts

The following tours and lectures were presented by the writer during Mr. Fagerlund's absence.

October 3 - orientation lecture at K.M.C. for 53 enlisted visitors.
October 23 - tour and lecture at museum for 75 performers of Fernandez Circus.
October 26 - Lecture at museum for 45 employees, their wives and families of the Hilo office, US Engineers.
October 27 - Lecture to a group of 120 Navy officers, sailors and civilians who visited the park as part of the local "Navy Day" celebration.
October 28 - Orientation lecture at K.M.C. for 47 enlisted visitors.
October 30 - Lecture at museum to 63 visitors.

Visitors

October 8. Mr. and Mrs. Raymond Hamson, of Los Angeles. Mr. Hamson is executive of the 12th Region B.S.A. inspecting the local scout councils within the Islands. He was accompanied by Mr. Wade Warren Thayer of Honolulu and Mr. Harold Arnold, local scout executive.

October 26-27. Dr. and Mrs. J.C. Wright, Office of Education, Washington, Mrs. Caroline Edwards and Mr. W.W. Beers, Department of Public Instruction, Honolulu. This party was inspecting the National Defense Vocational Training work in the Territory. The writer escorted them over the area and the CCC camp.

Public Safety

October 10. Joint meeting of the Safety Committee and Roads & Trails Committee to discuss speed limits in park. This was reported separately.
October 31. Regular meeting of Park Safety Committee. A separate report is being submitted for this meeting.

B.S. Moodaw, Jr.
Asst. to Supt.
MEMORANDUM FOR THE SUPERINTENDENT,
THROUGH the Camp Director,

SUBJECT: Monthly report on bird conservation work for October 1941.

Census

Fifty-two counts were made on 12 plots. Five days were spent in working up records taken over the past year. It is planned to submit a special report on population movements in December based on this work.

Life History

Trapping was done for the first three days of the month. One amakihi was banded, and several banded ones were re-trapped. Two of the latter had been banded over a year previously. Observations during these days gave information on territory holding, mating, feeding, molting, male belligerency, voice, etc. Information is rapidly accumulating which will allow a much improved understanding of the life history phenomena of the native birds. This is being accomplished largely through the continued study of banded individuals on a restricted area with supplementary observations in different habitats. Observations were again continued during part of the last week of the month.

As an item of unusual interest, Ranger Jess brought in an amakihi which proved to be a unique color variant. Orange feathers were interspersed among the usual green ones in the breast and head regions. Measurements were typical of the amakihi of this region and were as follows:

- culmen (bill) 13.6 mm
- tail 41.5 mm
- wing 61.5 mm
- tarsus (leg) 21.0 mm
- hind toe (with claw) 13.0 mm

It was impossible to determine the sex of the bird, because
the body had been run over by a car on the highway. In appearance it resembled a female more than a male. It was possible to make a permanent mount of the skin in fairly good condition. We know of no other amakihi (Chlorodrepanis virens) ever taken showing this color variation. It may be a throwback, and as such it may indicate a close genetic relationship to the genus Loxops, in which some of the birds are orange and some are green.

Parasites and Diseases

A letter was received from D. R. Coburn, of the Fish and Wildlife Service, giving advice about the bumblefoot problem. We find little sign of bumblefoot at present, indicating that it may occur in outbreaks, for at one time as many as 20% of the apapane in the Lava Tube region were apparently affected. In other regions 7% of the amakihi showed the disease. In the past six months all the individuals of these two species examined have been completely free of bumblefoot. In the meantime channels are clear for cooperation from the Hilo Board of Health laboratory and the Fish and Wildlife Service, as soon as disease birds turn up again.

A collection of lice was made for the first time from an apapane (mites, however, have often been taken before).

Food habits

A few nene droppings were collected. The birds apparently made a short stop-over at 3-trees kipuka. None were found at the Koa Oasis this month.

Reconnaissance

The bimonthly overnight trip to Kaualu was taken October 29 and 30. Counts were made at the tidal inlet hourly over a 24-hour period. The plover counts were unexpectedly low, but the turnstone and wandering tattler counts were up to previous records. Unusual birds seen were three sandpipers, two green-winged teal (probable identification), and one Canada Goose. The two ducks flew over twice in early afternoon without alighting. The sandpipers came in a body at dusk and bathed in the inlet. The goose came at 6:10 a.m. and stayed, fed, and drank brackish water until 6:45 a.m., when it flew to the north.

Miscellaneous

An interpretive book on birds was planned to the extent of outlining the probable organization and material
to be used. It is planned to present as much information as possible on how the old Hawaiians used birds in their economy, social customs, and religion; to present briefly the story of the origins of the Hawaiian bird faunas; to relate interesting details of the life history work being done now; and to tell where the different birds are to be found today in the national park forests.

Respectfully submitted,

Paul H. Baldwin
Senior Foreman (Wildlife) CCC
## DISTRIBUTION OF WORK ON PROJECTS BY DAYS

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<td>Sat. 24</td>
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<td>8</td>
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<tr>
<td>Sun. 25</td>
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<td>8</td>
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<td>26</td>
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<td></td>
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<td>8</td>
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<td>28</td>
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<td>29</td>
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<td>30</td>
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<td>x</td>
<td>8</td>
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<tr>
<td>31</td>
<td></td>
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<td></td>
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<td></td>
<td>8</td>
</tr>
</tbody>
</table>
MEMORANDUM for the Superintendent

Subject: Foreman’s monthly report for October, 1941

Routine maintenance work such as janitor’s work, roadside clean-up, sanitation, garbage disposal, wood and kerosene delivery was carried out during month. Other work accomplished is as follows:

103. Built new seismograph vault in the Episcopal parish house at Kona and assisted in dismantling and reinstalling seismograph in its new location.

201. Completed refinishing floors at Quarters #2. Painted kitchen, service porch, and dining room, and refinshed sinkboard at Quarters #16. Built and installed storage racks in basements of Quarters #17 and #27. Started painting the inside of Quarters #19. Prepared drain board to be installed at Quarters #17. All gutters and chimneys were cleaned.

202. 500 feet of ditch paving on Keanakakoi Hill was laid. 350 feet was completed. Repaired lower end of Hilina Pali truck trail. All road tools were sharpened during rainy spell in the early part of the month.

206. 33 man days were spent in assisting CCC complete stonewall at the new Volcano House.

207. All lawns were cut once during the month.

Miscellaneous. The undersigned made two round-trips to Kona in connection with moving the seismograph to its new location.

The afternoon of Monday, October 6, 1941, the entire maintenance crew were called out to hunt for two soldiers that were supposed to be lost in the Lava Tube area.

Respectfully Submitted

Herbert J. Quick
Foreman of Construction & Maintenance

CC - Mr. Quick
MEMORANDUM FOR THE DIRECTOR:

There is attached the monthly report of interpretive activities for the month of October 1941, and a schedule of the interpretive program for November.

Edward C. Wingate
Superintendent

By: Gunmar O. Fagerlund
Assistant Park Naturalist
The permanent rangers resumed participation in the interpretive program after being relieved of such duties for nearly three months. The rangers handled most of the field contacts during October. The Park Naturalist spent the period October 20 to 30 inclusive in Honolulu working on the museum exhibit plan and consulting with specialists on other matters pertaining to his work. During this absence most of the interpretive work was done by Assistant to the Superintendent, B. F. Hoosaw.

Administration

110 Special Activities
Division Heads continued to meet weekly for discussion of park problems. The committee on roads, trails, and signs met once during the month.

One meeting of the Hilo Toastmasters Club was attended.

Interpretation

410 Lectures, Guide Service, and Interpretive Contacts
The following special parties were given service in the park:

U. S. Engineers — — — — — — — — — — — — — — 55
Fernandez Circus Personnel — — — — — — — — — 75
Officers and enlisted men from U. S. S. Dunlap — — 55

411 Statistical report is attached.

415 Lectures outside the park.
Honokaa primary and secondary schools, on birds, by Olson — 450.
Honokaa High School, Birds of Hawaii, Olson — 440, Fagerlund, — 450
Honokaa High School, Volcanoes of Hawaii, Fagerlund, — 500
Honokaa Women’s Club, Birds of Hawaii, Olson — 50.
Honokaa Women’s Club, Haumana 1940, Fagerlund — 50

430 Museum Activities and Exhibits

431 More than a week out of the month was devoted to work on the museum exhibit plan. Most of this was in Honolulu.

Research and Observation

See the October report of Senior Wildlife Foreman, Paul H. Baldwin.
460 Natural History Association Activities

The quarterly meeting was held on October 15.

470 Photographic and other visual aids

Three days were spent on photography and incidental activities. While in Honolulu the Park Naturalist visited the Photographic section of the Army Air Corps and recorded the catalog numbers of aerial photographs of Hawaii National Park of which we may want prints.

500 Use of Park Facilities

<table>
<thead>
<tr>
<th></th>
<th>Total Visitors</th>
<th>Total contacts</th>
<th>V.P.H.</th>
</tr>
</thead>
<tbody>
<tr>
<td>September 1941</td>
<td>35,940</td>
<td>21,002</td>
<td>6,632</td>
</tr>
<tr>
<td>October 1941</td>
<td>30,300</td>
<td>20,248</td>
<td>2,354</td>
</tr>
</tbody>
</table>

3,631 decrease  254 decrease  508 increase.
MONTHLY STATISTICAL REPORT OF INTERPRETIVE CONTACTS
IN SCENIC OR SCIENTIFIC AREAS
Hawaii National Park

<table>
<thead>
<tr>
<th>Name of Area</th>
<th>October</th>
<th>Year</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Number of Persons Engaged in Interpretive Activities</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Permanent Technical Administrative Other</td>
<td>No.</td>
<td>Month Year</td>
</tr>
<tr>
<td>Permanent Technical Administrative Other</td>
<td>one</td>
<td>2021 year</td>
</tr>
<tr>
<td>Temporary none</td>
<td>none</td>
<td>none</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CONDUCTED TRIPS</th>
<th>No.</th>
<th>Attend.</th>
<th>Duration*</th>
<th>V.P.H.**</th>
</tr>
</thead>
<tbody>
<tr>
<td>Auto Caravans</td>
<td>17</td>
<td>676</td>
<td>8 hours</td>
<td>1058</td>
</tr>
<tr>
<td>Hiking Trips</td>
<td>7</td>
<td>101</td>
<td>3 hours</td>
<td>203</td>
</tr>
<tr>
<td>Ruins</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>#List other types</td>
<td>Total</td>
<td>24</td>
<td>777</td>
<td>1550</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>LECTURES</th>
<th>Total</th>
<th>V.P.H.**</th>
</tr>
</thead>
<tbody>
<tr>
<td>Campfire</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hotel or Lodge Kilauea Military Camp</td>
<td>4</td>
<td>100</td>
</tr>
<tr>
<td>Museum</td>
<td>16</td>
<td>695</td>
</tr>
<tr>
<td>Outside of Park</td>
<td>5</td>
<td>1460</td>
</tr>
<tr>
<td>Special**</td>
<td>Total</td>
<td>31</td>
</tr>
</tbody>
</table>

**Includes all other types

<table>
<thead>
<tr>
<th>ATTENDED INTERPRETIVE STATIONS &amp; MUSEUMS</th>
<th>Total</th>
<th>V.P.H.**</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name of Station</td>
<td>1658</td>
<td>1/4 hour</td>
</tr>
<tr>
<td>Uwakuma Museum</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| List by name and type | 1658 | XXX | 559 |

<table>
<thead>
<tr>
<th>UNATTENDED INTERPRETIVE STATIONS</th>
<th>Total Contacts</th>
<th>V.P.H.</th>
<th>Total Visitors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name of Station, Nature Trail, etc.</td>
<td>28,789</td>
<td>39,354</td>
<td>30,939</td>
</tr>
<tr>
<td>Haleakuma Shrines and Falls</td>
<td>6000</td>
<td>1/4 hour</td>
<td>1500</td>
</tr>
<tr>
<td>Kipuka Pasulu Shrines and Nature Trail</td>
<td>5000</td>
<td>3/4 hour</td>
<td>2200</td>
</tr>
<tr>
<td>Lava Tube Shrines</td>
<td>4500</td>
<td>1/4 hour</td>
<td>1125</td>
</tr>
<tr>
<td>Makapu’a Shrines</td>
<td>5000</td>
<td>1/4 hour</td>
<td>700</td>
</tr>
<tr>
<td>List by name and type</td>
<td>16,800</td>
<td>XXX</td>
<td>6650</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>BROADCASTS</th>
<th>Total Contacts</th>
<th>V.P.H.</th>
<th>Total Visitors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Station</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Subject</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Mail Attention Naturalist Division, National Park Service, Washington, D.C., in time to arrive on or before the tenth of the month following the one reported on.

* Average Duration of Activity

** This column represents visitor participation hours. The figure is obtained by multiplying the visitor attendance by the average duration of the contact; i.e., the average time devoted to the trip, lecture, museum visit, or use of interpretive stations.
Offered free each week to the visiting public.

**EVERY MONDAY:** 9:30 a.m. - **KIPUKA PUAULU NATURE WALK** - Meet at Kipuka Puaulu (Bird Park) for a delightful easy walk of 1.2 miles round trip.

**WEDNESDAY:** 8:15 a.m. - November 5, 12, 19
PARK TOUR - Auto caravan assembles at Lava Tube Trip includes Chain-of-Craters, Halemaumau, and Uwekahuna Museum for lecture and movies.
10:30 a.m. - LECTURES and MOVIES at Uwekahuna Museum.

**TUESDAY:** 8:15 a.m. - November 27
PARK TOUR - Auto caravan assembles at Lava Tube Trip includes Chain-of-Craters, Halemaumau, and Uwekahuna Museum for lecture and movies.
10:30 a.m. - LECTURES and MOVIES at Uwekahuna Museum.

**FRIDAY:** 1:30 p.m. - November 7 and 21
HIKE TO PULU FACTORY, MAIPU CRATER AND LAVA TREES, or TO 1790 FOOTPRINTS AND MAUNA IKI depending on the weather. Hike about 4 miles round trip. Start from Volcano House and Military Camp by automobile.
8:30 a.m. - November 14
Come along on an eight-mile hike across the Kau Desert and see Pit Craters, cinder cones, lava flows, Mauna Iki, tropic birds, and human footprints in volcanic ash. Bring your lunch and canteen of water. Start from Volcano House and Military Camp by automobile.
8:30 a.m. - November 28
Hike beneath the towering cliffs of Kilauea over Byron Ledge, through Kilauea Iki, 3.6 miles. Start from Volcano House.

**EVERY SATURDAY:** 8:15 a.m. - PARK TOUR - A short caravan that includes the Lava Tube, Halemaumau and lecture and movies at Uwekahuna Museum. Start from Volcano House.
10:00 a.m. - LECTURES and MOVIES at Uwekahuna Museum - A general lecture on the park and movies of eruptions.

**EVERY SUNDAY:** 9:30 a.m. - **MAUNA LOA TRUCK TRAIL AUTO CARAVAN** - Meet at Kipuka Puaulu (Bird Park) parking area for a 20-mile round trip drive to 6,700 foot elevation.

Museum open week-days 8:00 a.m. to 3:30 p.m., Saturdays, Sundays, and holidays 9:00 a.m. to 4:30 p.m.

(PROVIDE YOUR OWN TRANSPORTATION. ALL TRIPS START PROMPTLY AT TIME INDICATED.)

**SPECIAL SERVICES**

Special Guided Trips and/or lecture and movies for parties of 5 or more persons may be arranged by submitting requests to the Superintendent at least one day in advance.

Edward G. Wingate, Superintendent

By: B. F. Mc Nemar, Jr.
Assistant to the Superintendent
Nov 10, 1941

Memorandum for the Superintendent

Report of the Hawaiian Volcano Observatory for the month of October

During the last week in October there were 30 seismic disturbances mostly of Kilauea origin, otherwise the month was quiet both volcanologically and seismically. Crack measurements showed that the movement of fault blocks around Halema'uma'u that was accelerated by the earthquake of Sept. 25, gradually decreased during October until by the last of the month only very slight movement was noted.

Tilting for the month was slight to the northeast, though the actual value is somewhat problematical owing to reconstructing the seismograph cellar.

The following table gives some of the quantitative data obtained during the month of October:

<table>
<thead>
<tr>
<th>Week</th>
<th>Tilt</th>
<th>Crack movement</th>
<th>Seismic</th>
<th>Seismicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>ended</td>
<td></td>
<td>millimeters</td>
<td>Disturbances</td>
<td></td>
</tr>
<tr>
<td></td>
<td>No Opening</td>
<td>No closing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oct 5</td>
<td>Mod NE</td>
<td>5</td>
<td>1</td>
<td>1.0</td>
</tr>
<tr>
<td>12</td>
<td>Slight SE</td>
<td>7</td>
<td>3</td>
<td>2.5</td>
</tr>
<tr>
<td>19</td>
<td>Slight E</td>
<td>13</td>
<td>0</td>
<td>---</td>
</tr>
<tr>
<td>26</td>
<td>Slight NE</td>
<td>10</td>
<td>1</td>
<td>1.0</td>
</tr>
</tbody>
</table>

Work of R H Finch

The seismograms were sorted out and filed in the new storage room. They had become badly mixed up in moving from the old building. A start was made on rearranging the books of the library. When they were moved by the CCC they had been placed on the shelves without regard to subject. The material for the Volcano Letter for July-September was prepared. Data on the earthquakes recorded at Lassen Park from 1927-34 were prepared. During the absence of P. E. Schulz the last week of the month a large part of
each day was taken up in the routine measuring of seismograms.

Work of P. E. Schulz

A very large portion of the seismologists' time is taken up in the daily reading of the seismograms. A large part of two half days in each week is spent in measuring cracks and changing seismograms on Loucks' day off. The seismological report for the July-September Volcano Letter was prepared. Two notes—"Talk recordings of the Hawaiian Volcano Observatory", and "Changes in the Hawaiian Volcano Observatory"—were written for the Volcano Letter. He performed the duties of the naturalist on Oct 22. He made some experimental photograph copies of early Volcano Letters and established a new pit crack station. Some time was spent one afternoon in becoming familiar with the spectrograph. During the first 23 days one day was taken off. Annual leave was taken on the last 5 days of the month.

Work of B. J. Loucks

Weekly crack measurement and daily changing of seismograms takes up a large part of each day. Aside from the regular routine his time was distributed as follows:

Oct 1-2 On new instrument room 6½ hours
6-7 On vertical seismograph 6½
8 On tilt meter 5
9-10 On shop equipment 6½
13 Shop equipment 3½
14-15 Moving Kona seismograph 16
22 Timing circuit for vertical seismograph 5
16-30 On shop equipment 48

R. H. Finch
Volcanologist
UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
HAWAII NATIONAL PARK
HAWAII

November 5, 1941

MONTHLY REPORT OF ACTING CAMP DIRECTOR HERBERT R. RENNIE TO PARK
SUPERINTENDENT EDWARD G. WINGATE FOR THE MONTH OF OCTOBER, 1941.

We enrolled 10 new boys and discharged 20 of which 10 were for
expiration term of service, 9 for securing employment and one for re-
turning to school.

There was an average of 72 enrollees released to the Project
Superintendent during the month, a drop of 20 enrollees per day from
the previous month. One thousand six hundred and sixty-five (1665)
man-days were utilized on all projects.

Corrections to the sanitation condition as reported by Dr. Phillips
were done.

The safety assistant reports all safety features are being followed
out.

JOB REPORT

Job 63 – Minor Road is now 65% completed and will be finished by
the eighth of next month.

Job 72 – Landscape Development is 70% complete. The stonewall
has been completed leaving the walks in the immediate area of the
hotel which should be completed as soon as possible during the first
half of next month. The planting will take longer to complete as it
should not be done to hurriedly.

Job 77 – Seismograph Cellar and Terrace is 45% complete with
the cellar completed leaving the small stone wall and terrace to be
completed next month.

Job 81 – Volcano House Garage is 50% completed. This garage will
be ready for use by the 8th of next month.

The entire project staff has been concentrated on the various
hotel projects with the idea of endeavoring to complete as much as
possible by the 8th of the month.

Respectfully submitted,

Herbert R. Rennie
Act. Camp Director, CCC ENP
UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

NATIONAL PARK

FILE NO.

MONTHLY REPORT
SEPTEMBER 1941

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 failures
to observe these rules, which are necessary to protect the
integrity of the official records.

ARNO B. CAMMERER,
Director.
MEMORANDUM for the Director:

There follows our narrative report on park activities during September.

Introduction

September, a busy and interesting month in many ways, was marred by the sudden death on the 18th of John Makaimoku (Chang), Senior Foreman in the park CCC organization. He died from a blood infection within a few hours after being rushed to the Hilo Memorial Hospital by Dr. Clyde Phillips, camp surgeon. His wife, the superintendent, and old friend Henry Kini were in the room when he died. Mr. Moomaw, Ranger Miller and Mrs. Wingate were there to do what they could to assist and comfort, and were most helpful. The funeral services were held on the 19th in the mortuary chapel in Hilo, followed by church services conducted in Hawaiian by the Rev. Moses Noku in the Kurtistown church, in which John had in recent years taken much active interest. He was buried in the family plot in the old Kurtistown cemetery. His many friends on the island and in the park contributed generously to assist the widow who is left with three small children.

John (Pake" (John, the Chinman) as he was affectionately called, had been employed in the CCC since it commenced operation in the park in the spring of 1934 and had been in immediate charge of work on the Mauna Loa truck trail and most of the landscaping jobs. His last work was on the landscaping and footpaths at the new Volcano House site and a short while before being taken to the hospital wished to go to the camp to advise the project superintendent where some particularly suitable ohia lehua trees could be found for transplanting. He was first employed on government work by the superintendent in 1922 while engaged in topographic surveying in the Puna district. From the beginning to the end he was faithful and, like most country bred Hawaiians, had a total disregard for physical hardships or long hours of duty.

On the 25th of September at 7:18 a.m. the island of Hawaii experienced its most severe earthquake since those preceding the 1935 Mauna Loa eruption. It centered beneath the southeastern flank of Mauna Loa and caused property damage in the Kau district west of the park, variously estimated at between $3,000 and $7,000. No damage was done in the park, though there were numerous landslides in Halemaumau and along the Hilina Pali.
During the month the superintendent attended a dinner conference in Hilo of all Selective Service Boards on this island and Honolulu officials; the monthly meeting of the Kilauea Council Boy Scouts of America; afternoon, dinner and evening sessions of the Board of Directors, NICA conference at the Volcano camp; and with Mr. Moomaw, Chief Ranger Christ and Mr. Finch conferred with the key men in the Olaa Emergency Police Guard unit.

Assistant to the Superintendent Moomaw continued work on an inventory of park buildings. On the 11th with Ranger Eller he made a trip through the Footprint area and Kipuka Pepeiau to Hilina Pali, and on the 26th with the chief ranger and park warden a trip to the seacoast at Naome, Halapa and Apua Point was made. He attended the regular monthly meeting of the Hawaii Island Traffic Safety Commission.

General Publicity

The September issue of "The Friend" published in Honolulu by the Hawaiian Board of Missions, carried an article on the laying of the cornerstone of the new Volcano House, by Rev. Albert Baker, who had spent several weeks in the area.

Ranger Gunner E. Olson completed in his spare time a manuscript for a small volume on the Story of the Volcano House, which is to be published in Honolulu by the operator, in conjunction with the opening of the new hotel in November.

The park is to have a booth at the Maui County Fair, to be held early in October. A relief model of Haleakala crater, specimens of volcanic bombs, silverword plants, etc., will form the display.

Maintenance

Park Foreman Herbert J. Quick was on Maui between the 13th and 17th for the purpose of installing an air compressor at the Haleakala section, and checking buildings and roads for maintenance work.

New Construction

In order to speed the CCC program at the new Volcano House (CCC Job 61 and 72) work at the Observatory and Naturalist Building was curtailed even more than during August. However, during the month all remaining concrete was completed, the library completed and occupied; the processing room finished to the extent it is now in use, the seismograph room was prepared for the installation of instruments and the siding has progressed to about 50% completion. The entire job is 57% complete.

The landscape planting, stone wall, relocating the entrance road, etc, (CCC Jobs 61 and 72) at the Volcano House are progressing slowly but satisfactorily considering the shortage of men. Every effort is being made to complete the jobs in time for the opening of the Volcano House on November 8.
This earthquake fittingly enough followed within four days the thwarted attempt of an old Hawaiian woman from the island of Molokai to sacrifice herself to Pelej She was noticed on the morning of the 21st behaving in a peculiar manner at the Haldron Ledge lookout at Kilauea crater, by some CCC enrollees, who reported her to Landscape Foreman Hewitt. He called Park Ranger Miller from headquarters duty and together they went back to the woman who was being watched by the boys as they taught her was out of her mind and might attempt to jump over the cliff. When asked if she needed assistance she said to leave her alone, that she was not through with her business. Her clothes were half off and she was bruised and bleeding. She was quoting Biblical passages and singing hymns, slowly crawling along the wall, Foreman Hewitt got the doctor from the Military Camp and together with Ranger Miller and the CCC boys elicited the information that she had been on a religious pilgrimage for three weeks and had just come from Haleakula on Maui. The woman with the help of retired Laborer Charles Kashi, who accompanied her, was put on a bus for Olaa, followed by the doctor and Ranger Miller. At Olaa she was turned over to the county police for observation.

On the 14th the chief ranger, Ranger Jess and the superintendent spent several hours searching during a pouring rain in the fern forest for a reported lost Filipino girl. When night came Rangers Olson and Miller were called in and a watch posted. The girl finally emerged from the forest about 7:30 p.m., where she had been hiding following a quarrel she had had with her companions on an automobile trip. These companions had made such a frantic heedless search before reporting her disappearance as to obliterate any trail she might have left. They had gone higher and thither wildly breaking ferns and plants without attempting to follow her trail.

Weather Conditions

There was a noticeable increase in the precipitation in both sections of the park during September - totals being: at Kilauea, 15.66, at Haleakula ranger station 6.55; and observation station 5.37 inches. Six and eight tenths inches of rain fell at Kilauea on the 7th; and two and a half inches at the Haleakula ranger station the same day which washed out the newly planted lawn. There were no days without some precipitation during the month at Kilauea. Maximum and minimum temperatures were as follows: Kilauea 77 and 53 degrees, Haleakula ranger station 73 and 48 degrees, and observation station 60 and 37 degrees.

Special Activities

The superintendent spent considerable time in Hilo in conferences with Territorial Senator Hill, County Attorney Pence and some members of the Territorial Legislature relative to acquisition by the Territory of the privately owned land in the authorized Kalapana addition. At Senator Hill's request the superintendent assisted Attorney Pence in preparing a draft of a joint resolution to provide for completion of this project. With Senator Hill's continued support it is expected the land acquisition will be pushed whether or not the legislature takes favorable action on the resolution during this special session.
CORRECTION

THE PRECEDING DOCUMENT(S) HAS BEEN REPHOTOGRAPHED TO ASSURE LEGIBILITY
SEE FRAME(S) IMMEDIATELY FOLLOWING
MEMORANDUM for the Director:

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Introduction

September, a busy and interesting month in many ways, was marred by the sudden death on the 18th of John Nakamukol (Chang), Senior Foreman in the park CCC organization. He died from a blood infection within a few hours after being rushed to the Hilo Memorial Hospital by Mr. Clyde Phillips, camp surgeon. His wife, the superintendent, and old friend Henry Kini were in the room when he died. Mr. Moomaw, Ranger Miller and Mrs. Wingate were there to do what they could to assist and comfort, and were most helpful. The funeral services were held on the 19th in the mortuary chapel in Hilo, followed by church services conducted in Hawaiian by the Rev. Moses Woidin in the Kurtistown church, in which John had in recent years taken much active interest. He was buried in the family plot in the old Kurtistown cemetery. His many friends on the island and in the park contributed generously to assist the widow who is left with three small children.

John (Fakse) (John, the Chinaman) as he was affectionately called, had been employed in the CCC since it commenced operation in the park in the spring of 1934 and had been in immediate charge of work on the Mauna Loa truck trail and most of the landscaping jobs. His last work was on the landscaping and footpaths at the new Volcano House site and a short while before being taken to the hospital wished to go to the camp to advise the project superintendent where some particularly suitable ohia lehua trees could be found for transplanting. He was first employed on government work by the superintendent in 1922 while engaged in topographic surveying in the Puna district. From the beginning to the end he was faithful and, like most country bred Hawaiians, had a total disregard for physical hardships or long hours of duty.

On the 25th of September at 7:18 a.m. the island of Hawaii experienced its most severe earthquake since those preceding the 1935 Mauna Loa eruption. It centered beneath the southeastern flank of Mauna Loa and caused property damage in the Kau district west of the park, variously estimated at between $3,000 and $7,000. No damage was done in the park, though there were numerous landslides in Halemaumau and along the Hilina Pali.
This earthquake fittingly enough followed within four days the thwarted attempt of an old Hawaiian woman from the island of Molokai to sacrifice herself to Pele. She was noticed on the morning of the 21st behaving in a peculiar manner at the Waldron Ledge lookout at Kilauea Crater, by some CCC enrollees, who reported her to Landscape Foreman Hewitt. He called Park Ranger Miller from headquarters duty and together they went back to the woman who was being watched by the boys as they thought she was out of her mind and might attempt to jump over the cliff. When asked if she needed assistance she said to leave her alone, that she was not through with her business. Her clothes were half off and she was bruised and bleeding. She was quoting Biblical passages and singing hymns, slowly crawling along the wall. Foreman Hewitt got the doctor from the Military Camp and together with Ranger Miller and the CCC boys elicited the information that she had been on a religious pilgrimage for three weeks and had just come from Haleakala on Maui. The woman with the help of retired Laborer Charles Kauhi, who accompanied her, was put on a bus for Olaa, followed by the doctor and Ranger Miller. At Olaa she was turned over to the county police for observation.

On the 14th the chief ranger, Ranger Jess and the superintendent spent several hours searching during a pouring rain in the fern forest for a reported lost Filipino girl. When night came Rangers Olson and Miller were called in and a watch posted. The girl finally emerged from the forest about 7:30 p.m., where she had been hiding following a quarrel she had had with her companions on an automobile trip. These companions had made such a frantic needless search before reporting her disappearance as to obliterate any trail she might have left. They had gone hither and thither wildly breaking ferns and plants without attempting to follow her trail.

Weather Conditions

There was a noticeable increase in the precipitation in both sections of the park during September - totals being; at Kilauea, 13.65; at Haleakala ranger station 6.55; and observation station 5.37 inches. Six and eight tenths inches of rain fell at Kilauea on the 7th; and two and a half inches at the Haleakala ranger station the same day which washed out the newly planted lawn. There were no days without some precipitation during the month at Kilauea. Maximum and minimum temperatures were as follows: Kilauea 77 and 53 degrees, Haleakala ranger station 75 and 45 degrees, and observation station 60 and 37 degrees.

Special Activities

The superintendent spent considerable time in Hilo in conferences with Territorial Senator Bill, County Attorney Pence and some members of the Territorial Legislature relative to acquisition by the Territory of the privately owned land in the authorized Kalapana addition. At Senator Bill's request the superintendent assisted Attorney Pence in preparing a draft of a joint resolution to provide for completion of this project. With Senator Bill's continued support it is expected the land acquisition will be pushed whether or not the legislature takes favorable action on the resolution during this special session.
During the month the superintendent attended a dinner conference in Hilo of all Selective Service Boards on this island and Honolulu officials; the monthly meeting of the Kilauea Council Boy Scouts of America; afternoon, dinner and evening sessions of the Board of Directors, YMCA conference at the Volcano camp; and with Mr. Noomaw, Chief Ranger Christ and Mr. Finch conferred with the key men in the Olaa Emergency Police guard unit.

Assistant to the Superintendent Noomaw continued work on an inventory of park buildings. On the 11th with Ranger Eller he made a trip through the Footprint area and Zipunu Falls to Milima Falls, and on the 26th with the chief ranger and park warden a trip to the sea coast at Keone, Halape and Apua Point was made. He attended the regular monthly meeting of the Hawaii Island Traffic Safety Commission.

General Publicity

The September issue of "The Friend" published in Honolulu by the Hawaiian Board of Missions, carried an article on the laying of the cornerstone at the new Volcano House, by Rev. Albert Baker, who had spent several weeks in the area.

Ranger Gunder E. Olson completed in his spare time a manuscript for a small volume on the Story of the Volcano House, which is to be published in Honolulu by the operator, in conjunction with the opening of the new hotel in November.

The park is to have a booth at the Maui County Fair, to be held early in October. A relief model of Kilauea crater, specimens of volcanic bombs, silversword plants, etc., will form the display.

Maintenance

Park Foreman Herbert J. Quick was on Maui between the 15th and 17th for the purpose of installing an air compressor at the Haleakula section, and checking buildings and roads for maintenance work.

New Construction

In order to speed the CCC program at the new Volcano House (CCC jobs 61 and 72) work at the Observatory and Naturalist Building was curtailed even more than during August. However, during the month all remaining concrete was completed, the library completed and occupied; the processing room finished to the extent it is now in use, the seismograph room was prepared for the installation of instruments and the siding has progressed to about 60% completion. The entire job is 57% complete.

The landscape planting, stone wall, relocating the entrance road, etc, (CCC jobs 61 and 72) at the Volcano House are progressing slowly but satisfactorily considering the shortage of men. Every effort is being made to complete the jobs in time for the opening of the Volcano House on November 8.
Work was started on the Volcano House garage by the CCC (Job 81); and the seismograph cellar and terrace at the hotel (CCC Job 77) is progressing satisfactorily and should be finished in October.

Park Operators

The contractor for the Volcano House is trying to speed up his work in order to complete the job early in November. Interior finishing and painting are well under way. It is the hope of the operator now to open November 8, though at the end of September it was considered 85% complete.

The return of Mr. R. J. Walsh to active managership of the Grand Hotel on Maui is already improving the park operator's activities in the Haleakala section. He has located a good guide to handle his horseback parties and hopes to reopen the summit lunchroom concession.

Legislation affecting park

A joint resolution was introduced at a special session of the Territorial Legislature, authorizing the governor to acquire for transfer to the United States 18,170 acres of privately owned land in the authorized Kalapana addition to the park.

Lectures, guide service, etc.

Lectures and guide service were furnished the following special parties visiting the park during September: 288 sailors of USS Wright, 50 Hilo Hongwanji (Japanese church) Sunday School teachers; also one trip was made by a member of the ranger staff to the summit of Mauna Loa with 7 persons.

Research and Observation

The beginning of September marked the end of a four months period during which the majority of local earthquakes had their origin on Mauna Loa. Kilauea quakes predominated during the first two weeks of the month. On the 25th the entire island (quake was also recorded on the Haleakala seismograph) was shaken by what was believed to be the most severe earthquake for several years. Point of origin was under the east flank of Mauna Loa. Damage amounting to approximately $5,000 was done in the vicinity of Pahala and Zapepala ranch — consisting of a loss of about $500 worth of medicines knocked off shelves at the Pahala hospital, broken china-ware, lamps, cracked roads, stone walls falling down, etc.

The first draft of the manuscript for the proposed geologic guide book for the park was finished by Seasonal Ranger Willard H. Eller.

One item of interest concerning a recently introduced species of bird (the white-eye), noted by CCC Senior Wildlife Foreman Paul Baldwin, was that this bird has become widespread in the park and surrounding vicinity. Records of its occurrence are being made this fall for the first
time. The presence of the Akepa (Lamprohypus coccinula) in the park was determined. The status of this colorful and rare native bird as a permanent, year round resident is extremely probable. It was identified by Mr. Baldwin and confirmed by Ranger Olson's sighting made in 1939 in the lower ohia forest in a narrow belt extending eastward from the Ainalahou ranch at about 2500 feet elevation.

Nene (Hawaiian goose) habitats were visited by Mr. Baldwin, but no sign of the presence of these birds in the park during September was encountered. He states it has been impossible to avoid noticing that every particular locality where nene have been reported as feeding or roosting in the past several years, goats have been using the same locality for browsing or bedding down. The presence of goats in these areas may interfere with the normal use of their range by the nene. This problem has not become alleviated in the last month or two. On September 30 it was noted by Mr. Baldwin that the number of goat droppings in Three-Trees Kipuka was much greater than the preceding months. It was also found that no nene droppings had been deposited there in September. He recommends fencing of these nene habitats to keep out the goats.

Increase or Decrease in Travel

Travel to Kilauea section for the month amounted to 31,140 visitors as compared with 22,368 for September 1940; and at Haleakala 2460 persons as compared with 1600 for the preceding year. Travel to Kilauea for the travel year amounted to 298,748 persons and for Haleakala 22,980 persons.

Visitors

Mayor Lester Petrie of Honolulu, and Chairman Samuel Spencer of the Hawaii County Board of Supervisors and party were given special attention by the superintendent.

One hundred fifty Shriners from the Territory, for lunch at the Volcano House, September 14.

George Armitage, Executive Secretary of the Hawaii Tourist Bureau spent several days at the Volcano House and in conferences with the superintendent, formulating plans and publicity in connection with the opening of the new Volcano House, the date for which has been set for November 8.

Mrs. Margaret McKay of Peiping China was a visitor in the park for approximately two weeks. Mrs. McKay is the author of The Lady with Jade and like Water Flowing.

Mr. James A. Farley, former Postmaster General, and now Chairman of the Board of the Coca Cola Export Corporation, visited the Haleakala section September 1.
Ranger Service

Seasonal Ranger Willard M. Eller left the park at the end of the month.

Insects and Tree Diseases

As a result of a survey made of the fern weevil infestation by Seasonal Ranger Clifton J. Davis, it has been decided that no transplanting of ferns within the park is to be done, except from spots selected by the park naturalist, in order to keep down the spread of this infestation. The infestation is not considered serious but studies and control will be continued.

Accidents

The ranger in charge of the Haleakala section reports that a visitor to that area tried to climb the cliff above the silversword trail on the 23rd, and fell about 50 feet, receiving severe head lacerations and bruises. He was given first aid and then taken to the Paia hospital, where the doctor said he would recover all right, provided no infection set in.

Donations

The ranger in charge of the Haleakala section reports that the Maui Chamber of Commerce donated to the park for use in the crater shelters, complete sets of 12 restaurant china plates, cups, saucers, etc., also sets of 12 for each shelter of stainless steel knives, forks, spoons; in addition to kitchen utensils, and two pressure type gas lanterns. The proper letter of acceptance will be prepared and forwarded shortly.

Miscellaneous

CCC Camp Director Herbert H. Bennie's father died at Waimea, Kauai, on the 28th.

There were three new additions to the park community in September—all boys—born to Mechanic and Mrs. Chisato Fujimoto on the 13th; Laborer and Mrs. Bernard Waltjen on the 22nd; and CCC Foreman and Mrs. Levi Hains on the 16th.

A beginners' class in Hawaiian was organized in September under the sponsorship of the Volcano Recreation Club, with about 16 persons taking advantage of the opportunity to at least get the fundamentals of this language. The class is under the direction of US Commissioner Joseph Akau of Hilo.

Assistant Park Naturalist Gunnar O. Fagerlund was elected vice-president of the Hilo Toastmasters Club and CCC Senior Foreman (Wildlife) Paul H. Baldwin re-elected secretary-treasurer of that organization.

Mr. and Mrs. Lavelle H. Hewitt (Constance Whitney, clerk-stenographer
in the park office), who were recently married, were, together with re-
tired Laborer Charles Kauhi, the honored guests at an Hawaiian luau held
in the park on September 3. Tables for some 80 guests were laid in the
woodshed, which had been decorated with coconut and fern fronds and other
greensery, and flowers. The food was prepared by the Hawaiians on the
staff, under the direction of Foreman Herbert Quick, and nothing which
goes to make an Hawaiian luau memorable was omitted. The party also serv-
ed to introduce to the community Mrs. Sam Milne, wife of the CCC project
superintendent.

Edward G. Wingate
Superintendent
Showing stone wall at Kapapala ranch partially knocked down by earthquake of September 26. All similar walls showed much damage, some roadways were cracked, dishes broken, lamps and pictures thrown down and window panes broken.
Grave of John Makinoku, former Foreman and Recreation Officer of camp HMP-1. John was buried in family plot at old Kuttie-town cemetery hedged in by cane fields.
Seismograph room, new Volcano Observatory & Naturalist Building, showing concrete instrument bases in place. Room is dug into lava rock.

New Volcano Observatory & Naturalist Building - library room completed and bookcases being installed.
New Volcano Observatory & Naturalist Building - completed laboratory for smoking and shelling seismograph records.
Memorandum to the Superintendent through the office of the Chief Ranger

Subject: Demented women and scene at "Waldron Lodge"

At 11:30 AM on September 20th, Mr Laval Hewitt came in the Park office and stated, that an elderly Hawaiian lady was at Waldron Lodge in a delirious condition. He also stated, that from all indications she was about to commit suicide.

When I arrived at the scene, I found the party lying on the ground with her face and stomach tight against the observation wall. Apparently she had not drank any intoxicants, but was in a very hysterical religious stupor. When I questioned the woman, she muttered incoherently that she was Mrs Joseph Black and had come from Molokai by the way of Hapi and Haleakala to Kilauea to crucify herself. Frequently this party would scream then mutter scriptures, both in English and Hawaiian, occasionally mentioning "Palea".

I instructed Mr Hewitt to watch her while I summoned help. The other rangers were out on duty and were not available. I then directed Mr Hewitt to go to EMG for the army doctor. By the time the physician arrived Mrs Black had partially snapped out of it. Dr Lyle stated she was demented and should be placed under observation and treated for her many self inflicted lacerations and bruises. With help I put the lady in my car and took her to the Volcano Studio. She insisted on returning to Hilo on the bus in preference to any other car. Due to her condition it was advisable to humor her somewhat.

Earne8t Schulz - Jr. Geologist happened to pass the Studio before the bus departed and I instructed him to call the Hilo Police concerning the incident and for them to have an officer take the lady off the bus at Olaa.

With the aid of Mr Chas Kauhi talking Hawaiian to Mrs Black we were helped considerably in controlling her emotions. At the doctors suggestion Mr Kauhi accompanied the party on the bus to Olaa, to keep her mind occupied. The physician and I to follow, to be on the scene in the event of an emergency.

As anticipated, a police lieutenant and a sargent stopped the bus at the Olaa Hospital and took Mrs Black into custody. Dr Lyle and I each gave statements to the officers that they might take action accordingly.

Dr Lyle of EMG, Mr Laval Hewitt and Mr Chas Kauhi rendered invaluable service on this occasion. My suggestion is that these men should be commended for their efforts.

Charles W. MillE
Ranger
MEMORANDUM FOR THE SUPERINTENDENT,

THROUGH the Camp Director.

SUBJECT: Monthly report on bird conservation work for September 1941.

Census

Regular counts taken on established plots indicated that certain seasonal shifts in population centers for various species had occurred. Counts on one plot in the upper ohia forest belt at 7500 ft. were concluded, while an additional plot was selected in the koa forest at 4300 ft. in the heart of the area formerly grazed by cattle, an area usually found to be devoid of the native perching birds at present, whereas in former decades it was abundantly tenanted by them.

Life History

Observational work was continued on birds in various habitats, and a variety of data concerning September activities was accumulated.

White-eye

One item of interest concerning a recently introduced species, the white-eye, is that this bird has become widespread in the park and surrounding vicinity. Records of its occurrence in a number of localities hereabouts are being made this fall for the first time.

Akepa

The presence of the Akepa (Loxocephala coccinea) in the park was determined. The status of this colorful and rare bird as a permanent, year-round resident is extremely probable. It is found in the lower ohia forest in a narrow belt extending eastward from the Ainahou ranch at about 2500 ft. elevation. Though this area is not so accessible as could be desired, it will be possible to
study this species here. In former decades the akapa was found over a much larger area in the park than at present.

Nene vs. goats

Nene habitats were visited, but no sign of the presence of these birds in the park during September was encountered. It has been impossible to avoid noticing that every particular locality where nene have been reported as feeding, roosting, or resting in the past several years in the park, goats have been using the locality for browsing or bedding down. This has been so even during periods of lowest ebb in goat numbers when drives and shooting were being carried on with much success. Characteristics common to each of the localities frequented by the nene include remoteness, lookout rocks, food plants, and sheltered spots.

The presence of goats on these areas may interfere with the normal use of their range by the nene. It has been noticed that nene take to rock lookouts and assume an attitude of vigilance as soon as they become aware that a person is in the vicinity. They remain in this attitude without relaxing for many minutes, even though the person is no longer visible to them. It is reasonable to suppose that they would respond in the same manner to goats. When the goats are returning to bed down the nene take to the rocks, and when the goats have approached within a certain distance the nene fly to another location altogether, not to return until many hours later. That much time has been spent on the lookout rocks has been evident from the masses of droppings deposited there, but opportunity to observe directly this reaction to goats has so far been wanting.

On June 15, 1941, to describe one case in point, a small kipuka was visited at the lower tip of the northeast area of the 1881 lava flow which ends at 6500 ft. in Kapapala. Nene droppings were found here and confined to an area of 30x100 yards at the upper border of the pahoehoe lava of the kipuka. Droppings were also massed on aa rocks above the pahoehoe indicating that sentinels were active while others were feeding or when goats were near. Goat droppings were especially abundant with hundreds to the square yard. A band of goats was seen down the slope a few hundred yards. Certainly this situation demands that attention be given to the problem of goat interference with nene roosting and nesting activities, and that fencing of favorable nene spots or complete goat eradication be considered.

The goat problem has not become alleviated in the last month or two. On Sept. 30, it was noted that the number of goat droppings in 3-trees kipuka was much greater than it had been in August and immediately preceding months. It was also found that no nene droppings had been
deposited there during the month of September.

Parasites and Diseases

Correspondence was carried on with Dr. Oliver Cope concerning his identifications of bird lice from birds collected in the park and broaching the proposition that joint ecological studies of the relations between the birds and the parasites could be undertaken by cooperation between the field technician here and the specialist in the university.

Reconnaissance

Trips were taken to the following localities to check on movements of all the native birds:

Koa Oasis, 3400 ft., Kau desert.
Area west of Kipuka Nene, 2800-3000 ft.
Kahue and Apua forest, 2000-2800 ft.
Kapehu stream, Hilo Forest Reserve, 2250 ft.

Miscellaneous

Work was continued on the study of koa, committee meetings were attended, and the annual wildlife report of Ranger Olson was checked.

Respectfully submitted,

Paul H. Baldwin
Senior Foreman (Wildlife) CCC

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Paul H. Baldwin
Senior Foreman (Wildlife) CCC
### DISTRIBUTION OF WORK ON PROJECTS BY DAYS

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<th>Census</th>
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- Holiday: 8 hours
- Day off 1/3: 8 hours
- Misc. Hours: 8 hours
MEMORANDUM for the Superintendent:

Monthly report for September, 1941.

Weather Conditions

The month of September displayed the most typical "good old Volcano weather" that had been evident for many months. It was surely a pleasant experience after the long dry season.

Special Activities

The writer continued work on the physical inventory of buildings. This work is about 75% complete for the Kilauea section. Incidental to this work, two long field trips were made to outlying sections of the park, in company with seasonal ranger Eller, I covered the Footprints-Kau desert-Kipuka Pepeiau and Hilina Pali section on the 11th and with Chief Ranger Christ and Warden Medeiros I covered the Kéfono-Halape and Agua Point areas on the 26th. Both of these expeditions were subjects of separate reports.

Business trips were made to Hilo on the 8th, 18th, 19th and the 29th. Those on the 18th and 19th were necessitated by the death and funeral of CCC Senior Foreman John Makainoku, a man whose loss is a considerable blow to our organization.

Rangers Jess and Miller each spent portions of a week on staff training in headquarters.

The writer was on annual leave for 1½ days over the 22nd and 23rd.

New Construction

In order to speed the CCC construction program at the new Volcano House work at the Volcano Observatory and Naturalist Building was curtailed even more than that of August. However, during the month all remaining concrete work was completed, the library was completed and occupied. The processing room was finished to the extent that it is in use by the Observatory staff, the seismograph room was prepared for the installation of instruments and the siding has progressed to about 50% completion.
New construction (CCC) at the Volcano House is progressing slowly but satisfactorily considering the shortage of men. The contractor for the building proper is trying to speed up his work in order to complete the job early in November. Interior finish and painting is well under way.

Research and Observation

A meeting of the park research committee was attended during the month.

Other pertinent data under this heading was covered in the writer's reports of his field trips of the 11th and 26th.

Insects and Tree Diseases

Covered in the reports of field trips of the 11th and 26th.

Safety

The writer attended the monthly meeting of the Hawaii County Traffic Safety Commission on the 8th.

The park safety committee held its regular meeting on the 22nd and a joint meeting with the roads and trails committee on the 30th. Separate reports were tendered for both of these meetings.

Miscellaneous

Three new additions were made to the park community during the month - namely three boys, born to Mechanic and Mrs. Chisato Fujimoto on the 13th; and Laborer and Mrs. Bernard Waltjen on the 22nd; and CCC Foreman and Mrs. Levi Haina on the 16th.

The entire staff was deeply grieved over the sudden death of CCC Foreman John Makaimoku on the 18th. Several members of the park staff and CCC organization attended his funeral, held at Kurtistown, on the 19th.

CCC Camp Director Rennie's father died in the hospital on Kauai, on the 28th.
MEMORANDUM FOR THE SUPERINTENDENT

Report of the Hawaiian Volcano Observatory for the month of August

Oct 7 1941

The beginning of September marked the end of a four months period during which the majority of local earthquakes had their origin on Mauna Loa. Kilauea shakes predominated during the first two weeks of September. The entire island of Hawaii was shaken by an earthquake that had its origin under the east flank of Mauna Loa on Sept. 25. Some damage was done at Kapapela and Pahala not far from the southwest corner of Hawaii National Park.

Activity at Kilauea and Mauna Loa during the month was confined to the usual fuming and steaming.

The concentric rim cracks at Halemaumau showed positive openings on the morning of Sept 25. The openings were undoubtedly due to the earthquake of Sept 25.

Owing to construction work tilt records are not definite though it appears that there was a slight accumulation of northeast tilt.

The following table gives some of the quantitative data obtained during the month of September:

<table>
<thead>
<tr>
<th>Week Ended</th>
<th>Tilt</th>
<th>Crack movement</th>
<th>Seismic disturbances</th>
<th>Seismicity</th>
</tr>
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<tbody>
<tr>
<td>Sept 7</td>
<td>Strong W</td>
<td>2.0</td>
<td>1</td>
<td>0.5</td>
</tr>
<tr>
<td>14</td>
<td>ModNE</td>
<td>3</td>
<td>3.0</td>
<td>4</td>
</tr>
<tr>
<td>21</td>
<td>--- NE</td>
<td>3</td>
<td>1.5</td>
<td>4</td>
</tr>
<tr>
<td>28</td>
<td>--- NE</td>
<td>7</td>
<td>13.5</td>
<td>8</td>
</tr>
</tbody>
</table>

Work of R H Finch

The work of moving the library into the new building on Sept. 11, 12 and 15 was supervised by R H Finch. Some of the shelving was erected with volunteer help. The processing room which was nearly completed by CCC labor was finished and made ready for occupancy. A beginning was made at rearranging the books in the library. The manuscript of W. H Eller on the geology was read in an early and in a final form. The manuscript of G. E Olson on the history of the Volcano House was read rather carefully. Some time was spent on the work on the new building and on a proposed garage for the same. Sept 25 was spent on a field trip in the Kau Desert.
Work of P. E. Schulz

A large part of Mr. Schulz's times was taken up with the daily reading of the seismograms, computing seismicity and measuring and plotting tilt. Once each week he relieved the instrument maker in the daily changing of the seismograph records and measured rim cracks. One day was spent in improving a report on the eruption of Mauna Loa. A field trip was made to study the effects of the earth quake of Sept 25. A half a day was spent on a trip to inspect and make repairs to the Hilo seismograph.

Work of B. J. Loucks

The daily routine of instrument care took up a large part of each day. In addition to the regular routine the work of Mr. Loucks was about as follows:

Sept 2 Made scale drawing for placement of piers in the new instrument room 3 1/2
3 Put in meridian line markers in new basement 3
4 On time signal by radio set 3
5 - 11 Worked on shop equipment 28
12 Cut key way for Foreman Quick 3
13 On radio set for time signal 1
15 Worked on shop equipment 3
16 - 22 Worked on processing room 23
23 On radio panels 3
23 - 26 On shop equipment 11
29 On radio for time signal 3
30 On new instrument cellar 5

R H Finch
Volcanologist
MEMORANDUM for the Superintendent:

Subject: Foreman's monthly report for September, 1941.

Routine maintenance work such as janitor work, roadside cleanup, sanitation, garbage disposal, wood and kerosene delivery was carried out during the month. Other work accomplished is as follows:

103 - Moved trailside shrine at Kipuka Puuulu to a more suitable location. Built a new fireproof drum smoking booth for Kona. Gathered and prepared materials necessary to move the Kona seismograph to its new location.

201 - Started refinishing floor at quarters No. 2. Painted kitchen at quarters No. 8.

202 - Completed shoulder work in steam flat section, 1A Mamalahoa highway. Cleared ditches Crater rim road. Paved the four aprons entering KMC from Mamalahoa highway. This job is 100% complete. Repaired damage did by heavy rain on golf course road. Cut grass on road shoulders. Minor shoulder repairs and patching to sections 1A and 1B Mamalahoa highway.

206 - Repaired Sulphur Bank trail.

211 - Installed reinforced concrete cover on cesspool at quarters No. 2. Repaired water lines at quarters No. 2. Installed shower at quarters No. 8. Repaired and cleaned water tanks at Kamaiki Paia and old summer camp.

The undersigned made a trip to Maui to install an aircompressor and to familiarize himself with that portion of the park. Activities while there were listed in a separate memorandum.

Herbert J. Quick
Foreman of Construction and Maintenance
UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
HAWAII NATIONAL PARK
HAWAII
October 9, 1941

MONTHLY REPORT OF ACTING CAMP DIRECTOR HERBIE R. RENNIE TO PARK SUPERINTENDENT EDWARD G. WIEGATE FOR THE MONTH OF SEPTEMBER, 1941.

We enrolled 13 new boys and discharged 19 boys of which 6 were for expiration term of service, 6 for securing employment, 6 for desertion and one for medical reasons.

The obtaining of new enrollees is progressing very slowly and the writer feels that we all have to resign ourselves to the fact that we have to operate the camp with a somewhat low strength for at least some months to come.

The softball tournament which was held in Honolulu at SHE-1 was won by SHE-2. This camp got a trophy for the best sportsmanship shown.

The shower and wash rooms are now completed and in operation.

There was an average of 92 enrollees released to the project Superintendent. During the month 1702 man-days were used on the projects.

Dr. Phillips conducted one First-Aid class during the month.

Projects:

Job 54 - Observatory & Naturalist Building:
   Work is progressing slowly due to the fact that both carpenter foremen are being utilized elsewhere. This project is now 57% complete.

Job 61 - Minor Roads:
   This project is now 62% complete and is being rushed so as to be completed prior to the opening of the Volcano House.

Job 72 - Landscape Development:
   The various jobs under this project such as the stone wall, walks, soil preparation and planting are also being rushed so as to be completed prior to the opening of the Volcano House.

Job 77 - Seismograph Cellar and Terrace:
   This project is progressing very satisfactorily and should be completed next month. It has been reported 10% completed.

Job 81 - Volcano House Garage:
   Foreman Janik is cutting the materials necessary for this garage. Foreman Enos had already completed the necessary fill.
Various other small projects were also worked on during the month.

Respectfully submitted,

Herbert R. Bennie
Act. Camp Director.
MEMORANDUM for the Superintendent

The September, 1941, monthly report for the ranger division follows:

010 General. The sharp earthquake of September 25th, originating on the SW rift of Mauna Loa did an estimated $7,000,000 (Mrs. Beatty of Hualalai) damage in Pahala and Kapapala Ranch. Aside from a few road-cut slides and some sliding in the Hilina Pali region, it did no appreciable damage within the park.

The untimely death of CCC Foreman, John Makaimoku on September 18, shocked residents of the volcano district. His long service here made him well known to everyone on the park staff.

Two irrational woman incidents were tastefully handled and tragedies averted.

020 Weather Conditions. Typical volcano weather was back with us again after a dry summer. Rainfall at park headquarters was 13.66 inches for the month.

030 Maintenance. Repairs to the telephone system, signs and traffic counters were made as needed. The cutting of interfering trees and branches along the telephone lines is continuing with the two CCC boys assigned to this division.

410 Lecture and Guide Service. Lectures to and guiding of park visitors were still handled largely by the naturalist division, except the following:
2 park tours for 266 sailors of USS Wright,
1 park tour for 50 Sunday School teachers of Hilo Hongwanji,
1 Mauna Loa tour for 7 persons,
1 Inter-Island tour for 35 persons.

510 Decrease in travel. The expected fall decrease in travel, cut visitation from the August high of 40,910 to 31,140, a drop of 8,770 persons which is proportionately the usual September decrease due to school-openings and so forth.

520 Visitors. The only visitors of note contacted by the ranger division was Mayor Lester Petrie of Honolulu and Retentate Dr. Grover Batten who visited the park along with 150 other Shriners who lunched at the Volcano House, September 14.
610 Ranger Service. Temporary ranger Willard Eller terminated his services at the end of September. Ranger G.E. Olson was on annual leave September 1 to 3 and 17 to 28, inclusive.

The usual night patrols, flag duty, switchboard duty and blackout watch assignments were performed during September.

Patrol trips were made to Hapu, Great Crater, Pedesa, Halepe, Eilina Palii, Apua, Kahue and into the uplands of Apua and Kahue. The upper end of both Kahue and Apua were noted to have inadequate ground cover; this condition can undoubtedly be attributed to heavy goat grazing. Many bands of goats were seen in the Apua and Kahue uplands. In the upper end of the land of Apua, an area of 25 to 30 acres of dead and dying ohia trees was noted. Mortality is apparently from the same cause as that in the Pauahi crater region.

620 Police Protection. Regular inspections were made of the CCC and park dynamite and cap magazines. These structures were posted with new signs during the month.

Thirty-seven wild goats and 7 wild pigs were eliminated from the Kilauea section of the park during September.

Two speeding-reprimands were given. A soldier from Kilauea Military Camp was caught defacing the telephone box at Thurston Lava Tube. A detailed report was submitted showing action taken.

A Filipino girl, lost or hiding, was the subject of a search on the afternoon and evening of September 14. A separate report covering the case has been made.

Also covered by a separate report was the case of an Hawaiian woman who was acting strangely near Aloha Palii lookout.

A larceny at the Gardner residence is still being investigated.

650 Building Fire Protection. One fire drill was held at the CCC camp. The new Volcano House personnel were instructed in the use of fire extinguishers.

800 Miscellaneous. The committee on Sanitation and Campgrounds met and made recommendations set forth in a separate report.

The garden committee made 2 inspections of the CCC gardens.
In reading over the monthly report from the Haleskala Section, it appears that, from section 350 Donations, Ranger Hjort may not be familiar with Service regulations covering acceptance of donations, etc. He should also provide the Chief Clerk with a detailed inventory, including value of all articles received so that these items can be picked up on stock or loan cards.

Joseph H. Christ,
Chief Ranger.
UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
HAWAII NATIONAL PARK
HAWAII

MEMORANDUM FOR THE SUPERINTENDENT THROUGH THE CHIEF RANGER.

At a meeting of the Roads and Trails And Safety Committees on September 30, the undersigned reported the unsafe condition of the approach road to the Ke-u entrance to the park. The section of road extending for about three miles Ke-u of the park boundary has many deep chuck-holes in the pavement. The road at this point is narrow and has deep drop-offs at the pavement edges which in some cases makes "dodging" of these holes quite impossible. Meeting or passing vehicles on this stretch of road is difficult and presents a serious traffic menace to the public, especially now, with the heavy truck-traffic to Horse Field.

The committee unanimously requests that the proper highway maintenance division be notified of this road condition.

The Roads and Trails Committee

Gunder M. Olson, Chairman.
MEMORANDUM for the Superintendent through the Chief Ranger.

Subject: Narrative report for September.

I served as acting chief ranger until Ranger Olson's return to duty, and he took up this work on the 5th.

Routine assignments of flag, switchboard, and patrol duties were carried out.

Routine building inspection work was accomplished. Engineering assistance was given the CCC organization in laying out the new entrance road for the Volcano House, construction lines and grades for the seismograph vault, rock wall, and new garage. A reinforced concrete slab cover for the steam chamber was designed. The installation of the telephone cable leading from the new building to the overhead line at the rear of the present Volcano House kitchen was supervised. A study was made of the possible underground electrical connection for Dr. Jaggar's residence and the seismograph vault. My recommendations have been submitted in a separate report. Study was also given the building limitation requirements as applied to the construction of the observatory and naturalist building and a report has been submitted.

A plan for the flume installation in Quarters #2 was prepared. Area computations by the double meridian distance method were completed for the Mauna Loa section of the park. A study was made of the location of the various survey markers in the Lava Tube area in order to familiarize myself with the proper boundary location in this area. First order leveling bench marks Q-1 at Browns Ranch, and P-1 at Bird Park, were recovered and found to be in good condition.

Routine telephone instrument and traffic counter maintenance was carried out. A break in the electric power cable serving Dr. Jaggar's residence was spliced on the 20th.
I assisted in the search for a lost woman in the Hilo entrance area on the 14th.

A meeting of the sanitation and campground committee was attended. A meeting of the Kekealani P. T. A. was attended on the 24th. I attended a Scouters meeting at Olaa on the 25th. Regular classes in Hawaiian were attended. Due to pressure of routine work, very little time was spent on our headquarters training assignment.

Public contacts for the month include 160 sailors from the USS Wright, and 50 Sunday school teachers from the Hilo Hongwanji.

Arthur L. Jess,
Park Ranger.
Memorandum to Superintendent Edward G. Wingate through office of Chief Ranger J. H. Christ.

Enclosed are the monthly narrative report, the travel report, information for Fpu-1, Mat'1, 1005 reports from the summit and Ranger Station.

Frank A. Hjort
Ranger in Charge
UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
HAWAII NATIONAL PARK
HAWEI

Memorandum to Superintendent Edward G. Wingate through office of Chief Ranger J. H. Christ.

Wailuku Maui
Sept. 30, 1941

The following narrative report of the Haleakala Section for the month of September, 1941 is respectfully submitted.

000 General 010 Introduction

The seismograph installed here some time back finally got a chance to do its stuff on the 25th of the month at about 7:18 A.M. The quake was felt here on Maui by widely scattered groups of people, but was of no great force as some people in the same building were divided in opinion as to whether there really was a quake or not as some felt it and some did not.

The earthquake did not cause us half as much trouble as did two rather heavy rains. The grass seed recently received was just nicely planted in the ranger station yard when the first rain came and washed a good deal of the soil along with the seed out. That not being enough the second batch of seed was sown and a second rain repeated the process of getting rid of it. Finally some of the seed has germinated and sprouted with not so great a loss as was at first supposed.

020 General weather conditions

At Pakaaoe Observatory this month there were 13 clear, 11 partly cloudy, and 6 cloudy days. Rain fell on 16 days to total 5.37 inches. The maximum was 60 degrees, occurring on the 15th while the minimum was 37 degrees, on the 2nd. Winds were from the south east.

At the Ranger Station there were 11 clear, 15 partly cloudy, and 4 cloudy days. Rain fell on 9 different days to total 6.65 inches. The maximum occurred on the 6th and 8th at 73 degrees and the minimum occurred on the 5th, 10th, and 28th at 49 degrees. Winds were variable.

100 Administration 180 Equipment and Supplies

Mr. "Herb" Quick from the Kilauea section headquarters visited this section of the park to install a compressor and motor for the purpose of painting with an air type paint gun. Mr. Quick arrived on the 13th and left on the 16th.

The model of the crater here arrived on the 25th and was immediately installed in the fairgrounds location for its showing.
General publicity

Ranger in Charge Hjort of this section made two talks this month. One was made before the Maui Junior Chamber of Commerce on Sept. 10, the other was made before the Alumnae of St. Anthony Boys School. The subject of both talks was the plant life of this section of the park and a brief history of the National Park Service was given and an attempt was made to encourage foot travel into the crater shelter houses.

An article appeared in the Maui News to the effect that the National Park Service was going to have an exhibit in the fair this year. This article has caused considerable comment locally.

Bert Tarleton of Honolulu is running a continuing story in the Hawaii, Tourist Bureau publication, about his last trip into the crater here. He did some fine plugging for Superintendent Edward G. Wingate, Park Ranger Frank A. Hjort and Park Warden Robert Plunkett, plus plenty of the right kind of advertising for the park.

Activities of other agencies in the park

Public Service contractors

No operator is yet in the observatory but Mr. Walsh has stated that he will probably get one for the fair week at least.

Anthony Tan the new Maui Grand guide is doing a grand job of taking in tourists and showing them around.

Cooperating governmental agencies

The Army now has the road to Red Hill paved and have removed all road making equipment from that location to the base camp to complete the small piece of road necessary there. The steel tower that is to be on the summit of Red Hill is starting to take shape.

At the base camp above Pau Niaiu all buildings are up and under a roof but not completed inside.

Donations

The Senior Chamber of Commerce here donated the park a complete set of twelve of restaurant china plates, cups, saucers, soup bowls, etc.; also a set of twelve for each shelter house of stainless steel knives forks and spoons plus all the kettles, iron fry pans, pots etc. necessary to make one at home in the crater. Two pressure type gas lanterns were also on the list for each cabin.

Use of Park facilities by the public

Travel here is still on the increase but is mostly local travel. The tourist season seems to be over.
530 Visitors

James A. Farley, formerly Postmaster General and now Chairman of the Board of Coca Cola Export Corp., visited the park here on September 1st. He expressed the opinion that we really had quite a sight when he first locked over the rim from Pakaao.

630 Protection  630 Accidents

W. J. B. Hughes of the Army and Navy Y.M.C.A. of Honolulu tried to climb the cliff above the silversword trail here on Sept. 23rd and fell about fifty feet. He received sever head lacerations and was generally bruised up. He said he was lucky to be alive.

Mr. Hughes was discovered coming up the trail from the silverswords to the road and given first aid immediately. As soon as first aid was rendered he was rushed to Pia Hospital for further treatment. A check up later with the doctor seemed to indicate that he was not in too bad a shape if infection did not set in later. He was released and allowed to continue his trip to Hawaii.

640 Destruction of predatory animals

25 goats were destroyed in the park this month.

Since the setting out of the poisoned oats at the shelter houses in the crater the rats and mice have vanished. No dead ones have been found or smelled.
Information for FPU-1

Visitors:
From out of Territory----------88
From the Territory------------2312
2400

Campers------------------------19 spent 43 camper nights in rest houses
Sightseers---------------------2361
2400
Memorandum to the Superintendent through the office of the Chief Ranger.

Subject: Narrative report for the month of September 1941.

Routine Activities for the month included routine assignments at Flag duty, patrol, night check and switch board.

Misc Duties: Brushing out telephone lines, transporting horse feed from Hilo, telephone line repairs, painting miscellaneous signs, assisting at Makaimoku funeral and assisting Mrs. Makaimoku and family after ceremonies, carpenter work in park shop.

Contacts

- Sept. 7th: Mauna Loa Tour - 2 cars - 7 persons - 3 hrs.
- 20th Park tour (Assist) U.S.S. Wright - 108 - 1

Protection: Assisted on Sept 14th in search for missing Filipino girl in the environs of Hilo entrance.

Suspicious Hawaiian woman apprehended at Waldron Lodge on Sept. 23rd. A detailed report was submitted concerning the incident.

Forestry: Replanting 15 Koa and 60 Soap berry trees in the vicinity of Bird Park Picnic Grounds and in open area above Mauna Loa gate.

Wild Life: An increasing number of quail has been noted along the Mauna Loa Trail. Not only have the number of covey increased, but also population of each covey is proportionally larger. These quail apparently have no fear of man. They can be approached to within 8 to 10 feet.

Charles W. Miller
Ranger
MEMORANDUM for the Superintendent through the Chief Ranger.

An outline of my ranger activities for the month of September, 1941, follows:

Annual leave was taken September 1 to 3 and 17 to 28 inclusive.

Two superintendent's reports were perused and notes made.

The annual wildlife report was prepared and submitted in time to reach Washington by October 10.

Arrangements were made to conduct Hawaiian language classes in the ranger's office. The first of 16 sessions was held on September 23, with an attendance of 16. These night-classes are instructed by U.S. Commissioner, Joseph Skau and are sponsored by the Volcano Recreation Club.

Unsatisfactory conditions at the Lilo garbage dump were reported to Mr. Hooway and the situation was gone over with him and Col. Bonham, camp commander. The Army made an excellent cleanup of the dump and erected a fence which now serves to centralize dumping and allow better clean-up.

On September 12, Mr. Baldwin and Mr. Fagerlund were taken into the upper Apu and Kahue Lands to check on the existence of a bat cave. The skeletons noticed about a year ago in a large lava tube were found to belong to birds which had in some way found their way into the cave and perished. An old coconut cap, noticed on a previous expedition, was brought up and turned over to Mr. Fagerlund. One good bird skeleton was brought back and turned over to Mr. Baldwin.

On the same trip, positive identification of the akepa, a small, orange-colored bird, was made within the park by Mr. Baldwin. This confirmed my sight record of this bird along the Kalepana Trail in 1939.

Only one park tour was conducted during the month; that on Sept. 20, for 58 Inter-Island tourists.

One day was spent hauling horse-feed from the Hilo wharf.

Assisted in the search for and discovery of a lost Filipino woman in the Hilo Entrance area.

Gunder E. Olson,  
Park Ranger.
To Superintendent Wingate

Through the Office of the Chief Ranger

Subject: Report for the Month of August. (Ellor)

During September my time was rather broken up by public contact work. Altogether during the month five days were spent working with Naturalist Ragerlund on the exhibit plan for the new museum.

In view of the more definite information concerning publication of the geologic guide booklet I have been preparing I spent about three and a half days expanding and working on additional material for it.

Some time was spent working on miscellaneous jobs -- I helped the Observatory staff with the radio and timing circuits for their seismographs, the Kipuka Puaulu Shrine material was installed on the morning of the 15th, and monthly reports and schedules were made out.

On Sept. 11 I accompanied Mr. Moomaw on a patrol to the Footprints, Mauna Iki, Yellow Cone, Popelau, and Hilina Pali. We saw about 60 goats and shot three.

Routine duties were:
   Museum duty: Sept. 1, 6 (am), 13 (pm), 14 (pm), 20 (am), 21 (pm), 27 (pm), 28 (pm).
   Posting of Weekly Volcano Reports every Wed. or Thur.

Days off: 5 full days; 4 half days; 1 holiday.

On the following page is a detailed list of my public contacts:
### Public Contacts for the Month of September

<table>
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<tr>
<th>Hikes</th>
<th>no.</th>
<th>attendance</th>
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<tbody>
<tr>
<td>Kau Desert</td>
<td>1</td>
<td>11</td>
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<tr>
<td>Napau Crater</td>
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<td>15</td>
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<td>Kilauea Iki</td>
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<table>
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<tr>
<th>Scheduled Tours</th>
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<tr>
<td>Mauna Loa</td>
<td>3</td>
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<td>Special Mus.</td>
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</table>

| Total          | 1138     | 1204       |

On the whole the hikes, tours, and lectures were well attended, and the response for the most part was very good.

This month marks the termination of my work here with Hawaii National Park. I shall go on leave starting October 1 and continuing until its expiration.

Respectfully submitted,

Willard M. Eller
Seasonal Park Ranger
Memorandum for Chief Ranger Joseph Christ

About 11:00 O'clock Sunday September 21, 1941 I started to drive from the house to the CCC Camp. I was stopped at Waldon Ledge overlook by three CCC enrollees who wanted help for an Hawaiian woman who they thought was crazy. They had been watching her for about half an hour because they were afraid that she would jump over the wall. They stated that she had been crawling on her knees along the wall biting it with her teeth.

I got out of the car and went over to her. By that time she was laying quiet and seemingly unconscious. I told the boys to stay with her while I went to the office for help. I reported to Ranger Miller and we both went back to the ledge. By this time the lady was groaning.

We asked her if she would get into the car and she said, "No, leave me alone. I am not through with my business." She closed her eyes.

Ranger Miller went to find Ranger Christ while I and the three CCC enrollees waited there. During the few minutes that Miller was gone she progressed about ten feet along the wall in a crawling position. All of this time she was quoting scripture and singing religious songs. Due to the ordeal she was going through her clothes were half off and her body was bruised and bleeding in places.

Ranger Miller returned not having been able to find Ranger Christ. He then stayed with her while I went to the Military Camp and brought the doctor back. By this time the woman was up and quite a crowd had congregated. She seemed in a much better state of mind and said, "It's all right I'm through now," and sat down and started to put on her shoes and stockings.

The doctor asked her what she was "through with" and she said that she had been on a religious mission for three weeks and had come from Maui. Thinking that the doctor was asking her too many questions, she insinuated that if he interfered too much he might be cursed.
The driver of the bus from Hilo was there and stated that she had come out on the bus from Hilo that morning and had been requested to let her off at the overlook.

The doctor suggested to Ranger Miller that he get another Ranger and they would take her to the hospital at Olaa. Ranger Miller then asked me to look again for Ranger Christ. I went to the Christ home but was unable to locate Ranger Christ. When I returned to the overlook there was no one there. I then drove over to the Administration building and met Ranger Miller and the Doctor going to Olaa. They stated that they had put the Hawaiian lady on the bus with Charles Kauhi and that they were following the bus.

CCC foreman, Jessie Enos, told me Monday that he and his wife had been accosted by the same lady Saturday evening at a Hilo service station. She wanted a ride to the crater but they refused.

Lavelle M. Hewitt
Seior Foreman
Landscape Architect
CCC-HNP
UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
NATIONAL PARK

FILE NO.

MONTHLY REPORT
AUGUST 1941

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 Film 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.
MEMORANDUM for the Director:

There follows the report of activities for Hawaii National Park during August.

Introduction

Several unfilled vacancies on the staff and failure to receive information whether or not the recommended establishment of two additional positions had been approved placed an added burden on the ranger, naturalist and office staffs. The Volcano Observatory staff is being moved into the partially completed Observatory and Naturalist Building and the services of the recommended clerk-librarian are sorely needed at this time to arrange, catalogue, etc., the numerous books, manuscripts and periodicals. The work of laying out the entrance roads, parking areas and trails around the new Volcano House and engineering work during the construction of the Volcano Observatory and Naturalist Building, which has been handled by Ranger Jess as the best qualified engineer on the staff, emphasize the need for a permanent engineer. A request for eligibles to fill the two ranger vacancies was not made pending receipt of information on the possibility of transferring to the regular rolls one CCC employee who is especially well qualified.

Special Activities

The superintendent remained at headquarters the entire month, making routine inspections of all projects underway. Several trips were also made to outlying sections of the park, and numerous trips made to Hilo to confer with members of the territorial legislature and county officials and to attend meetings of various organizations, and a dinner in honor of former Postmaster-General James A. Farley.

As a result of discussions on the desirability of staff training, a program was instituted at the beginning of the month in order that various employees might attain a working knowledge and appreciation of the several functions of park administration and operation.
Inspections

COC Field Supervisor E.A. Peaonan inspected the local camp between August 10 and 14. Together with Mr. and Mrs. Moore, Executive Secretary Honolulu Council of Social Agencies, he was taken to the Hilina Pali region by the superintendent.

Weather Conditions

Rainfall at Kilaeua amounted to 6.57"; at the Haleakala ranger station 3.59"; and at the observation station 5.66". Maximum and minimum temperatures at Kilaeua were 79 and 53 degrees; at Haleakala ranger station 75 and 45 degrees; and at the observation station 63 and 36 degrees.

General Publicity

The Hawaii Mainichi - local bi-lingual newspaper - for August 15 and 16 carried an extensive article on the establishment of the Big Bend National Park; using material furnished by this office, which it had received from Washington.

At the request of the editor, Ranger Olson furnished material on the history of the Volcano House for use in the Christmas issue of the Paradise of the Pacific magazine; and the superintendent prepared a special article for the same edition.

New Construction

Progress on the Volcano Observatory and Naturalist Building (COC job 54) was slowed up in August, due to the necessity of using part of the crew on landscaping work around the new Volcano House. At the end of the month it was reported as 65% complete, with the library room almost finished. When this is done the books and records now stored in the old observatory building can be moved; and the old building dismantled to make way for improvements around the Volcano House.

Both cesspools at the Volcano Houses are now completed (COC job 74). Work was started on putting a roof over the seismograph cellar located at the old Observatory building (COC job 77) and was reported 65% complete at the end of August.

Park Operators

Work on the Volcano House is progressing steadily and at the end of August was about 75% complete. The operator has stated he hopes to open the new building October 26.

The Mani Grand Hotel is once more under the active management of Mr. E.J. Walsh. Mr. Barton J. Ogilvie, who had managed this hotel for
Mr. Walsh for about a year, left this position to accept the managership of the Haleiwa Hotel in Honolulu. The Grand Hotel has the saddle horse and lunchroom concession at Haleakala.

**Cooperating Governmental Agencies**

CCC - Ten boys were enrolled; and 15 discharged, of which 13 were for returning to school, 3 for securing employment, and 2 for expiration of term of service. Considering the demand for workers, both in private and federal industries, it is felt the camp has been fortunate in being able to keep an average enrollment of around 150 enrollees. Ninety six boys were taken to Malaekahana on Saturday, August 30, for a camping trip over Labor Day. Fifteen boys were taken to Honolulu to compete in a softball tournament to be held over Labor Day, sponsored by CCC TS-1 Wahiawa.

Through the cooperation of the US Engineers, this office has been granted authority to purchase water pipe on an Army contract, at a price considerably lower than it could have otherwise been obtained.

**Legislation Affecting Park Areas**

The superintendent spent considerable time during the month in conferences with members of the territorial legislature and county officials and in preparation of data for their use in connection with the forthcoming special session of the territorial legislature. It now appears that the delegation from Hawaii, if the session is not too limited, will introduce a joint resolution requesting the Commissioner of Public Lands to proceed with acquisition of the privately owned land in the authorized Kalapana addition. The resolution is somewhat similar to the one which was lost in the shuffle during the last few days of the regular session.

**Lectures, Guide Service and Contacts**

The following special parties were given attention: NCA, a baseball team from Honolulu, 2 groups of US sailors; Native Sons and Daughters of Hawaii, and territorial social service workers.

**Museum Activities and Exhibits**

New exhibit material for the Kipuka Puaulu trailside shrine has been completed, including four exceedingly well done color sketches of native forest birds by Mrs. Sarah Baldwin, wife of CCC Senior Wildlife Foreman Paul Baldwin. The naturalist found time to work on the exhibit plan for the new central museum. This was possible because of the full-time help of two seasonal rangers on public contact work.

**Research and Observation**

For the past 4 months the majority of the earthquakes recorded on
the seismographs of the Volcano Observatory have had their origins on the northeast slope of Mauna Loa. Only one of the 81 tremors recorded during the month was felt locally. During the last week of the month there was a distinct opening of the rim cracks around Halemaumau.

Regular bird census counts were continued by SGO Senior Wildlife Foreman Baldwin on established plots from 2200 feet near Hilo to 7500 feet on Mauna Loa. Trapping and banding was done in Kipuka Kulalio. The amakith was found to show well developed homing instinct. One individual was trapped on the slopes of Mauna Loa, brought to headquarters some 9 miles distant, where he escaped. However, about 2 days later he was found in a trap in the same tree in which he was originally trapped. This is another indication of the wisdom of preserving environment in its primitive condition in attempting to maintain optimum conditions for specialized native Hawaiian birds.

Increase or Decrease in Travel

Travel to Kilauea amounted to 40,910 as compared with 36,896 in August 1940. At Haleakala the ranger in charge reports 3640 visitors as compared with 2765 for August 1940, with many parties making the trip into the crater.

Visitors

Mr. James A. Farley, former Postmaster-General, August 30, for the day.

Mr. and Mrs. Hugh Lytle for several days. Mr. Lytle is manager of the Honolulu office of the Associated Press.

At Haleakala Mesara. Robert von Tempsky and Richard Baldwin of the Ulapalakua and Haleakala ranches respectively; members of old Island families; were taken through the crater by the ranger in charge. Both expressed their surprise at the success achieved in eliminating the wild goats.

Ranger Service

Seasonal ranger Clifton J. Davis left on the 27th in order to return to his teaching position on the island of Kauai. Incidentally, he and Mrs. Davis became the very proud parents of a baby girl, Linda Frances, on August 31.

Insects and Tree Diseases

During his employment as seasonal ranger Mr. Davis made a thorough survey of the fern weevil infestation in this locality.
Accidents

A very minor accident involving a visitor’s car and a truck from the Military Camp — occurred on the Rim Road near Aloha Pali on the 4th. There were no injuries, though the visitor’s car incurred damages in the amount of approximately $25. The truck was undamaged.

Historical Notes

In its column entitled "50 Years Ago Today - 1891", the Honolulu Advertiser for August 17, carried the following item: "The telephone line to the Volcano is finished and messages are being sent over it already. Mr. Richards arrived in town (Hilo) after 4 weeks' stay in the woods erecting the line." 8

On August 1 there appeared an article in the Honolulu Star-Bulletin regarding the pillaging of the ancient Hawaiian village of Kape on Oahu, by persons taking rocks from the old foundations. This article also carried a photograph of CCC Field Supervisor H.A. Peonen, who is also recreational consultant for the Service, and General Walter Short, commanding the Hawaiian Department of the Army. Mr. Peonen had made a field survey of these depredations, stating that evidence showed that at least 100 truck loads of rock had been removed from this site.

Miscellaneous

On August 23 a surprise blackout was undertaken on this island. This was the first time one of this type took place and all things considered it was quite successful. The local Emergency Police Guard Unit in this area patrolled the vicinity and generally took charge of the situation.

On August 4 Charles Elders, 15 year old son of Laborer William Elders, died very suddenly of a heart attack.

Clerk-stenographer Constance Whitney and CCC Senior Landscape Foreman Lavelle M. Hewitt were married on August 30 at the First Foreign Church in Hilo.

Edward G. Wingate
Superintendent

CCH
Showing partially completed Volcano House and location of new entrance road from Manalaha highway. Road work done by OGG (Job No. 63).
What was at first thought to be ground movement along a fissure proved to be the collapse of the roof of an old cesspool which served the administration building along about 1926-30.
MEMORANDUM for the Superintendent

September 8, 1941

Monthly report, August, 1941

Weather Conditions

Rainfall conditions were better in August than for several months, as the water supply held up with only one critical shortage about the first of the month.

Special Activities

We instituted a system of staff training at the beginning of the month so that the various employees may attain a working knowledge and appreciation of the several functions of park administration and operation. Rangers Olson and Miller alternated time in the administration building, sitting in with the assistant to the superintendent and the chief clerk, paying particular attention to the accounting system and administrative proceedings.

The writer spent some time working out a card system for park building records. This was an outgrowth from previous discussions regarding the need for a physical inventory of buildings.

Requisitions for new automotive equipment purchases were prepared.

Several business trips to Hilo were necessary in regard to routine work.

One field inspection was made of the Chain of Craters and Kipuka Nene areas.

New Construction

Work on the Volcano Observatory and Naturalist Building is progressing slowly, but satisfactorily, due to the necessity of reducing the size of the crew in order to complete certain work at the new Volcano House prior to its completion by the contractor.

Other construction is progressing satisfactorily.
Park Operators

The new Volcano House is beginning to look like a completed job. At month's end interior finish and painting of the exterior were in full swing with progress being shown each day.

Cooperating Governmental Agencies

This office contacted the local office of the US Engineer Department regarding the procurement of water pipe from an Army contract. (This pipe is to be used as replacement of some of the older water mains in the park water system). Capt. Baker of the Hilo office was most cooperative in this matter and referred us to the Honolulu office. Authority was granted by the District Engineer to make this purchase of ‘transite' pipe at a price considerably lower than which we could have otherwise obtained it.

Research and Observation

The writer observed a kolea, Wednesday the 27th, on the Steam Flats at about 4 p.m.

Police Protection

Assistance was rendered the Volcano House in clearing up an alleged bad check case. Separate report was made in regard to this affair.

Miscellaneous

Regular meeting of the park safety committee was held in the chairman's office, Friday, 29th.

Clara-stenographer Constance Whitney and CCC Senior Landscape Foreman Lavelle H. Hewitt were married August 30.
MONTHLY REPORT OF ACTING CAMP DIRECTOR, HERBERT R. HENNIE TO PARK SUPERINTENDENT EDWARD G. WINGATE FOR THE MONTH OF SEPT. 1941.

We enrolled 10 new boys and discharged 18 boys of which 13 for returning to school, 3 for securing employment, and two for expiring term of service.

Considering the demand for workers, both in private and Government industry it is felt that the camp has been very fortunate in being able to keep an average enrollment of around 150. The writer feels that more boys can be gotten but it will be done as soon as it is possible.

The doctor reports that the General sanitary condition of the camp is in very good condition.

Mr. Fagerlund showed movies in the recreation hall on Monday evening at 7:30 P.M.

Ninety-six enrollees went to Naalehu on Saturday, August 30th, for a three day camping trip. A softball tournament was to be played on Sat. and Sunday with Naalehu and Pahala teams.

Fifteen boys were taken to Honolulu by the writer to play in a CCC Softball Tournament which is being sponsored by TH-1 Wahiawa.

Our inter-barracks softball tournament was completed this Month; barracks No. 1 being the champions.

The safety assistant reports that all safety factors are being followed.

The rehabilitation of the bath house is progressing satisfactorily and should be completed shortly.

The high general condition and morale of the camp is continuing necessitating of course slight injection of discipline to maintain same.
There was an average of 94 enrollees released to the Project Superintendent. During the month making a total number of 1964 Mandays used on projects during the month.

**JOB 44 OBSERVATORY AND NATIONAL BUILDING.**

Excellent progress is being maintained on this job which is at present 55% completed. The library is being rushed to completion in order that the books and records in the old observatory building can be moved as to make way for new improvements around the new Volcano House.

**JOB 63 MINOR ROAD AND JOB 64 PARKING AREA.**

These two jobs have been started again since receiving approval for the reallocation of the Hotel entrance road.

**JOB 72 LANDS DEVELOPMENT.**

Sixty-five percent of the landscape work has been completed and is progressing satisfactorily.

**JOB 74 CESSPOOL Volcano House.**

The second cesspool was completed during the month making this job 100% complete.

**JOB 77 SEISMOGRAPH.**

This job was started this month and should be completed about the first of October. 25% is complete to date.

Various other small projects was executed during the month.

Respectfully submitted,

Herbert R. Rennie,
Acting Camp Director, COCHNP.

HRR/mn
MEMORANDUM for the SUPERINTENDENT Sept. 5 1941

Report of the Hawaiian Volcano Observatory for the month of August

For the past 4 months a majority of the earthquakes recorded on the seismographs of the Volcano Observatory have had their origins on the northeast slope of Mauna Loa. Only one of the 81 tremors recorded during the month was felt locally.

During the last week of the month there was a distinct opening of the rim cracks around Halemaumau.

There was a slight accumulation of northerly tilt during the month.

The following table gives some of the quantitative data obtained during August:

<table>
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<tr>
<th>Week Ended</th>
<th>Tilt</th>
<th>Crack movement</th>
<th>No. opening</th>
<th>No. closing</th>
<th>Seismic disturbances</th>
<th>Seismicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aug. 3</td>
<td>Slight N</td>
<td>1</td>
<td>0.5</td>
<td>2</td>
<td>1.0</td>
<td>24</td>
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<tr>
<td>10</td>
<td>Strong SSE</td>
<td>3</td>
<td>1.5</td>
<td>4</td>
<td>2.0</td>
<td>15</td>
</tr>
<tr>
<td>17</td>
<td>Slight S</td>
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<td>1.0</td>
<td>1</td>
<td>0.5</td>
<td>11</td>
</tr>
<tr>
<td>24</td>
<td>Mod WNW</td>
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<td>1.5</td>
<td>3</td>
<td>1.5</td>
<td>11</td>
</tr>
<tr>
<td>31</td>
<td>Strong WNW</td>
<td>7</td>
<td>4.0</td>
<td>0</td>
<td>---</td>
<td>20</td>
</tr>
</tbody>
</table>

Work of R. H. Finch

A review of the monograph, Calderas and their Origin, by Dr. Howell Williams was prepared for the April-June Volcano Letter which is now in the hands of the printer. Meetings of the Research, Roads, Trails and Signs, Safety, Automotive and Heavy Equipment, and National Defense committees were attended. Considerable time was spent on the details connected with the Observatory-Naturalist building. The vertical and strong motion seismograph and a special tilt instrument were dismantled and taken to the basement of the new building where special piers are being constructed. The contact clock and timing devices were set up in the temporary office in the new building. A few conferences were held with G. A. Macdonald of the U. S. Geological Survey concerning local and Puna geology.

Work of P. E. Schulz

The regular routine of measuring seismograms, computing and plotting tilt and seismicity was kept up to date. On Aug. 8 he lectured to a tourist group at the Museum and on the 21st gave a talk over KHBC. A total
of 25 days were spent in leveling in Kilauea Crater from a point on the rim with Robert Finch as volunteer rodman. One and a half days were spent in preparing figures for Mr. Waesche's manuscript on tilt. Aug. 27 was spent on a trip to Kealakekua with Foreman Quick in order to estimate the materials necessary to change the seismograph to a new location. Three committee meetings were attended. On Aug. 22 a trip was made to the northeast ridge of Mauna Loa with G. A. MacDonald. Aug. 24 was spent assisting in collecting material to decorate the fireplaces in the new hotel building.

Work of B. J. Loucks

Over half of Mr. Loucks' time was spent in the daily care of the seismographs and weekly measuring of cracks. The work of Mr. Loucks in addition to the regular routine was distributed as follows:

<table>
<thead>
<tr>
<th>Date</th>
<th>Task Description</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aug. 2-14</td>
<td>Worked on machinery in new observatory shop</td>
<td>36½ hours</td>
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<tr>
<td>5</td>
<td>Moved contact clock and timing control into basement of old building</td>
<td>3</td>
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<tr>
<td>7</td>
<td>Inspected rifles for CCC</td>
<td>1</td>
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<tr>
<td>15</td>
<td>Dismantled radio time control and moved same together with contact clock into basement of new building</td>
<td>5½</td>
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<tr>
<td>18-21</td>
<td>Work on radio and time control</td>
<td>18</td>
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<tr>
<td>24-27</td>
<td>On lathe attachment for South Bend lathes</td>
<td>11</td>
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<tr>
<td>26</td>
<td>Attended meeting of automotive equipment</td>
<td>1</td>
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<tr>
<td>27</td>
<td>Removed strong motion and vertical seismographs from old building</td>
<td>5½</td>
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<tr>
<td>28</td>
<td>Made floor plans for new seismograph basement</td>
<td>3</td>
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<tr>
<td>29</td>
<td>Attended Board of Survey meeting</td>
<td>1</td>
</tr>
<tr>
<td>30</td>
<td>Fixed meridian line in new seismograph basement</td>
<td>2½</td>
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</tbody>
</table>

R H Finch
Volcanologist
MEMORANDUM FOR THE SUPERINTENDENT,

THROUGH the Camp Director.

SUBJECT: Monthly report on bird conservation work for August 1941.

Census

Regular census counts were continued on established plots from 2000 ft. near Hilina Pali up to 7500 ft. on Mauna Loa. Thirty-three separate counts were made during the month.

Census data gathered during the entire period over which the project has extended was summarized. Over a period of 16 months, 236 counts have been made, an average of 14.7 counts per month. Eighteen sites have been censused, 11 of these regularly and the rest infrequently. The regularly censused plots represent most of the important habitats from the ohia forest above Hilina Pali to the ohia forest of Mauna Loa at 7500 feet. In terms of number of birds per 10 acres, data for four of the most important census plots (Mauna Loa at 7500, Mauna Loa at 5500, Bird Park, and Twin Craters) were refined and graphed to show month to month trends in the various native and introduced species present. Results will be written up in a special report on population trends. Work on this project was further planned to include additional census counts and collection of essential climatic and bio-environmental data. From these procedures the following major points should be determined:

1. Total bird population of the park.
2. Present yearly trends in increase or decrease.
3. Seasonal shifts and fluctuations in the population.
4. Revelation of causes and contributing factors to successes and failures in bird life in the area.

An overnight, bimonthly trip was made to Kaaualulu for the purpose of checking on Kolea movements. Large numbers of the birds were found to have made the return migration along with many akeake and ulili. Systematic quantitative data were gathered in the vicinity, including
the shore line and fields between South Point and Kealualu.

Ohia flowering data were gathered at three localities in the park.

Life History

Trapping and banding was done in Kipuka Kulalo. The amakihi was found to show well developed homing instinct when one individual, a male, was trapped at 6250 ft. elevation in K. Kulalo. It was brought to the headquarters area for study and escaped there the same morning. Forty-six hours after his escape at Kilauea Crater he reappeared in a trap in the same tree in which he had previously been caught. The trapsite was nine miles from Kilauea Crater. Another record obtained indicated homing instinct in a different way. An amakihi banded as a nestling on June 13, 1940, was seen 75 yards from the site of its original nest home on August 18, 1941. The last previous record for this bird was on September 27, 1940, during which month it frequented a group of ohia trees ½ mile to the east of its nest home. These records lead to the thought that the amakihi may be psychologically tied to the area in which they are born and fledged. Should a tie of this sort be rigid, the effect of destruction of critical elements in the environment of a particular locality can be readily comprehended. Destruction of the bird species in such an area would result. This psychological home tie may have been a factor of significance in the disappearance of specialized and localized Hawaiian species when forest conditions were modified by livestock, alterations in undergrowth, introduction of exotic insects, birds, and small mammals and plants. This is another indication of the wisdom of preserving the environment in its primitive condition in attempting to maintain optimum conditions for specialized native Hawaiian birds.

Seasonal activity in the birds was noted in connection with life cycle studies.

Reconnaissance

Trips were made to the following localities in the Kau, Puna, and Hilo districts:

Keawewai, Kauhoul Ranch--approached from end of Mauna Loa truck trail across kipukas.
Area immediately to east and north of Bird Park, H.N.P.
"Eoa oasis" below Keanakakii Crater, H.N.P.
Shore line from Honolulu Landing to Kalapana.

Findings resulted from these excursions as follows:

1. Keawewai was visited with Clifford Davis. Omao were found to be abundant at the west border of the forest on the ranch land. The forest was in good condition with many native plants. Everywhere on the rough lava, but in relatively poor condition with many exotic grasses, etc., where cattle ran. The akepieue (Loxops), formerly found in forests now within Hawaii National Park (see my "Checklist," 1941), was again found at Keawewai at the same precise locality but in smaller numbers than in September 1938. The numbers of akiapolaau in the vicinity also seemed reduced. A particular effort was made to find nene or signs of nene throughout the area and especially at waterholes indicated on the map. Nothing was found to indicate present occupation of the area by nene, though Herbert Rennie saw a small flock at Keawewai in July 1940.

2. The Bird Park back area was full of i`iwi in August. Akepieue and Hopue (Rhodacanthia) were not seen there. Several sandalwood trees 10-12 inches in diameter were found to be in good condition, with numerous smaller sandalwood trees and reproduction also present. A second trip was made with Mr. Fagerlund to discuss the state of koa reproduction here, much of which is remarkable in its abundance and vigor.

3. The "koa oasis" was visited with Mr. Fagerlund in connection with koa studies, but the trip revealed abundant signs that nene have recently spent considerable time here in this small group of koa trees. Many droppings were collected for food analysis. This promises to lead to more satisfactory information concerning nene movements, as it is the first definite information as to where nene stay between Kipuka Pepiau and 6000 ft. on Mauna Loa, both localities about 10 miles distant from the koa oasis. Since nene breed in the fall and, according to Henshaw, in the lowlands of Puna and Kau, this area should be watched during the next few months.

5. The shore line between Honolulu Landing and Kalapana was visited to check on shore birds and sea birds of the area. Small numbers of plover and ulili were found along the entire shore line. At Kalapana a small flock of akekeke and one red phalarope were seen at the ponds. No bristle-thighed curlew were located. Eight Noio (Anous) were seen off the cliffs west of Kalapana. Mr. Nhoa, lighthouse keeper off Kapoho, promised to notify the park next time a frigate bird strikes the lighthouse and dies, so that the specimen can be secured for the park collection. In addition, a number of valuable
records of forest birds was obtained, including the presence of the rare omao at the Keauhou Forest Reserve, 4 miles above Kaimu, a record which extends the present known range of this bird by many miles.

Miscellaneous

Koa forest studies were carried further in cooperation with Mr. Fagerlund, a quantitative field analysis of ground cover components in established koa study quadrats being made.

Mr. J. d'Arcy Northwood, President of the Honolulu Audubon Society, was taken to some of the better bird localities in the park. Later he gave an excellent talk before the Manuiki Audubon Society in Hilo with a record attendance of members and friends to hear him. The club decided to undertake educational projects for its fall activities in order to promote public sympathy for wildlife conservation activities.

Respectfully submitted,

Paul H. Baldwin
Senior Foreman (Wildlife)
### DISTRIBUTION OF WORK ON PROJECTS BY DAYS

<table>
<thead>
<tr>
<th>Date</th>
<th>Census</th>
<th>Life history</th>
<th>Reconnaissance</th>
<th>Miscel., hours</th>
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MEMORANDUM for the Superintendent

The following is the Chief Ranger's report of the activities of the ranger division for the month of August.

With the exception of the practice blackout on the 23rd, all work was confined to normal routine. Chief Ranger Christ was on annual leave for the entire month and Ranger Olson from the 19th to the 31st. Seasonal Ranger Davis left for Kauai on the 27th, while Seasonal Ranger Eller remained on duty the entire month.

Weather Conditions. Rainfall for the month was 6.57 inches. Rainfall for the period January 1 to date is 45.77 inches. Water storage is satisfactory.

Maintenance. Routine maintenance of the telephone system, traffic counters, and signs was accomplished.

Lecture and Guide Service. The following public contacts were made by members of the ranger division:

- 2 park tours for 198 persons.

Increase in Travel. Figures for the month show an increase of 2,405 persons over those for July. The total number of visitors for the month was 40,910. This increase of 6.2% is classed as a normal seasonal fluctuation, as August is our best travel month.

Visitors. Persons of note contacted during the month include Mr. James A. Farley, former Postmaster-General, who visited the park on the 30th. Also Mr. and Mrs. Hugh Lytle, who were guests at the Volcano House. Mr. Lytle is Manager of the Honolulu branch of Associated Press. Special visitor groups include 120 members of the Native Sons and Daughters of Hawaii, who visited the park on the 24th.

Ranger Service. Temporary Rangers Davis and Eller continued their assignment under the Park Naturalist.

Routine night patrol, flag duty, and switchboard assignments were carried out. The night patrol was extended to include a late patrol, varying between mid-night and 2:00 a.m. Patrol trips were made to the summit of Mauna Loa, Hualalai Crater, Pum Rose, and the sea-
coast areas of Apua, Kohue, and Kaone.

The field notes describing the exterior boundaries of the lands of Apua and Kohue were checked and computed, and a separate report has been submitted.

Engineering assistance was given the CCC organization in making the location survey for the new Volcano House road, for the relocation of the water supply line, location and grades for the sewers, and in designing a new cover for the censpool which will be located under the service area for the hotel garage. Routine building inspection work was carried out.

Routine inspection of the power and cap house was carried out.

New caution signs were erected at the Lava Tube entrances.

The boundary fence above Kipuka Hi was repaired and the corral fence is being changed in order to develop more forage for the park horses and mules. All of our stock have been removed from the Six Tanks area.

The inventory of park signs was completed during the month.

The exotics showing along the Rim Road were removed, as well as the bean growth at the old Keenakokol dump.

Assistance was given in carrying out the practice blackout on the 23rd., and a separate report has been submitted.

The fire extinguishers placed in the various garages and other points in the utility area have been marked "EPS" and given a serial number and a study will be made in order to determine which ones can be spared in an emergency for use outside the immediate area.

A meeting of the Board of Survey was held on the 29th, and a separate report of its action will be submitted.

Fifty-five goats and eight pigs were destroyed during the period.

A private plane landed on the Kilauea emergency field on the 11th due to a shortage of gasoline and poor flying weather.

Assistance was given to three motorists and four were reprimanded for exceeding the park speed limit.

One enlisted man from Kilauea Military Camp was found in an intoxicated condition along the Pahala Road and was taken to his quarters at Kilauea Military Camp.
An accident on the Rim Road near Aloha Pali lookout was investigated on the 4th. A private car from Hilo and a KUC truck were involved. No one was injured and the damage to the private car was estimated to be $25.00. No damage was inflicted on the KUC truck.

An accident in the driveway to the Superintendent's residence was investigated and a separate report has been submitted by Ranger Miller.

A near-accident involving a small child at the Volcano House has been reported.

Building Fire Protection. A fire drill by members of the park staff was held on the 16th. Arrangements were made for the training of the CCC foremen in fire fighting work.

Arthur L. Jess
Acting Chief Ranger.

CC - Acting Chief Ranger
UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
HAWAII NATIONAL PARK
HAWAII

August 17, 1941

MEMORANDUM FOR THE SUPERINTENDENT THROUGH THE ACTING CHIEF RANGER:

The following is my activities report for August, 1941:

Contacts: None.

Annual leave: August 1 and 19 to 31 inclusive.

Miscellaneous duties:
The inventory of park signs was completed and a report has been submitted.
One day was spent cleaning out the fire equipment shed and greasing the fire-fighting tools.
Two days were spent hunting goats. Thirteen were killed the first day and thirty-one the second.
One week was spent at headquarters assignment in the various offices.

On Aug. 11, a private plane, an Aerocoupe, no. N.C. 33838 belonging to Hui Lele of Roger's Airport of Oahu, landed on the emergency field near Koleasumaa. The plane was piloted by Philip D. Carpenter, with Wallace R. Dyer as passenger. They had flown from Hilo and had failed to find Kilauea due to low clouds. They were nearly out of gas so were taken to the Volcano House where they telephoned to Hilo Airport to learn weather conditions there and obtained gas enough to reach that city. They took off successfully and presumably reached Hilo safely.

Routine assignments were done as directed including one week's 7-11 p.m. radio watch for blackout signals.

Nursery:
The following native trees were transplanted: 17 wiliwili; 33 manele; 1 pilo; 2 koa; 4 kolea; 6 maile; and 4 papala kepau.
The following trees were sent out to Hilina Pali: 15 wiliwili; 6 wiliwili; 4 koa; 4 Hawaiian gourd (not a tree); and 1 hau.

Gunder E. Olson,
Park Ranger.
Memorandum to the Superintendent through the office of the Chief Ranger

Subject: Narrative report for the month of August

Routine duties
My activities for the month included routine assignments at switchboard, night check, flag duty, Volcano House Night watchman, patrol, and headquarters duty.

Miscellaneous duties
Telephone and telephone line repairs and maintenance, taking care of park nursery in the absence of Ranger on leave, supervising removal of exotic plants, attended one meeting of the research committee and one meeting of the board of survey, painting miscellaneous signs in the park sign shop, drafting, etc.

Contacts
Aug 24th U.S.S. Curtiss - Park Tour - 72 persons - 2 buses
Aug 30th Greeting and escorting Hon Jas. Farley and party for the Park Service

Wild Life
One Io (Hawaiian Hawk) was seen in the vicinity of the Giant Koa and a pair near Hilina Pali. Mr. W. Minasuyo of Keauhou Ranch that during the month he released 200 Jungle Fowl in fern Jungle East of ranch house. Eight wild pigs and one goat killed during the month.

Regulation
Three motorists were warned for speeding through the Park restricted zone and one assist to car stuck in a ditch. Separate report and record made in each instance.

Respectfully submitted,

Charles W. Miller
Ranger
To Superintendent Wingate

Through the Office of the Chief Ranger

Subject: Report for the Month of August. (Eller)

During this month my time was well broken up by tours and lectures. Altogether, however, about three days were spent working on material for a geologic guide leaflet of the park and about two days on material for the Bird Park Shrine.

Miscellaneous jobs took some time — the 16 mm. movie projector was repaired, some typing and other work was done for Naturalist Fagerlund, my monthly report and schedule were made out, a horse (Banjo) was taken to the end of the Mauna Loa Truck Trail on August 17, and a map of the private lands adjacent to the park was traced.

Naturalist Fagerlund and I spent two afternoons working on the new Museum Plan.

On August 18 to 20 I conducted Mr. Frank Midkif, his son, and the Volcano House stableboy on a trip to Mokuawoweowe. We left Park Headquarters at 11:00 a.m. on the 18th with Ranger Miller who drove us to the corral at 6,700 ft. We left on horseback from there shortly after noon and arrived at the 10,000 ft. resthouse at 4:55 p.m. The night was spent there. The Midkif's and I left for the summit at 7:00 a.m. on the 19th and arrived there at 11:40 a.m. and remained for lunch.

There appeared to be a faint haze of bluish or whitish fume within the crater of the 1940 cinder cone though it was not perceptible above the top of the cone.

We did not go to the new summit resthouse, but only to the site of the old one. The cave in which the telephone is located was visited and found to be very messy — pans and refuse were lying about and everything in the place was covered with bird droppings.

We left the summit at 1:15 p.m. and arrived back at
10,000 ft. at 4:45 p.m. where we spent the night. On the morn-
ing of the 20th we returned to the end of the Truck Trail where
we were met by Ranger Miller who brought us back to Headquarters
at 12 m.

I have already reported the poorly shed condition of the
Volcano House horses in my memorandum of August 23.

Routine duties which took up some of my time were:
Museum duty; Aug. 2, 3, 16 (pm), 23 (pm)
Posting of Weekly Volcano Reports every Tues. or Wed.

My days off were August 4, 10, 22, 25.

Here is a detailed list of my public contacts:

<table>
<thead>
<tr>
<th>Hikes</th>
<th>no.</th>
<th>attendance</th>
<th>participation hours</th>
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<tr>
<td>Kilauea Iki</td>
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<tr>
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<td>31</td>
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<td>138</td>
</tr>
<tr>
<td>Inter-Island</td>
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<td>38</td>
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<td>Special Tours</td>
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<tr>
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<td>120</td>
<td>90</td>
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<tr>
<td>Special Mus.</td>
<td>3</td>
<td>37</td>
<td>27.5</td>
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</tbody>
</table>

969                    | 1035 |

On the whole the hikes, tours, and lectures were well
appreciated, though in a few instances poor weather conditions
dampened the spirits of the people.

Respectfully submitted,

Willard M. Eller
Seasonal Park Ranger
UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
HAWAII NATIONAL PARK
HAWAII

Wailuku Maui
August 31, 1941

Memorandum to Superintendent Edward G. Wingate
Through office of Chief Ranger J. H. Christ.

Enclosed are the monthly narrative report, the travel report,
information for FFU-1, Metl-1005 reports from the summit and
Ranger Station.

Frank A. Hjort
Ranger in Charge
UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
HAWAII NATIONAL PARK

Memorandum to Superintendent Edward G. Wingate
through office of Chief Ranger J. H. Christ.

Wailuku Maui
August 31, 1941.

The following narrativer report of the Haleakala Section for the month of August, 1941, is respectfully submitted.

000 General 010 Introduction

This month marked the sudden gain in interest inside the crater as a very large number of people visited the rest houses and spent at least one night. Four of the larger parties were accompanied by members of the staff of this section of the park.

A series of illness has hit the personnel here and although few days have been actually lost none of us have felt up to par for a week or so.

020 General weather conditions

At the Ranger Station there has been 13 clear, 15 partly cloudy, and 3 cloudy days this month. The maximum was 75 degrees and occurred on the 28th while the minimum was 45 and occurred on the 22nd. Rain fell on 5 dates to total 3.53 inches. Winds were mostly from the East.

At Pakaaoo Observatory insufficient data was gathered to tell the number of clear and cloudy days as only one morning trip a day has been made by any of the staff. The maximum was 63 on the 11th and the minimum was 36 on the 30th. A couple of good rains occurred during the 9th and 11th along with 4 other smaller showers to total 5.86 inches for the month.

100 Administration 150 Equipment and supplies

16 tires were received this month for the passenger cars. We hope these will run us for the year.

The two pulleys and the belts for same were received for the generator and motor. It has been ascertained from a few days running that the new hook-up is going to cut gas consumption in about half and give better lights and power as the generator for the first time is running at proper speed.

300 Activities of other agencies in the park 310 Public Service contractors

311 Character of service rendered the public

The Maui Grand Hotel, once more under the able management of E. J. Walch has taken several parties into the crater this month and has been generally helpful in cooperating with the park here. No operator is at the observatory but Mr. Walch feels that he can obtain one sometime in the future.
Cooperating government agencies

The Army now has its road to the summit of Red Hill completed except for the final surfacing. One of the Park cars was for the first time driven above the 10,000 ft. mark. The summit of the hill has been cut down 3 ft. so the highest point is now 10,022 ft. The base camp above Puu Maianau is coming along rapidly with three buildings up.

Donations and acquisitions of all kinds

Although it is probably too soon to judge the Senior Chamber of Commerce on this Island has agreed favorably on donating this section of the park a sum of money for the purpose of equipping the crater rest houses more completely with dishes, lamps, etc.

Flora, fauna and natural phenomena

As stated in the introduction several large parties were accompanied by members of the staff here. These parties were shown the points of interest in the crater and although some had made a great many trips into the crater before they were surprised to find that they were shown many things they had not seen or knew existed and very interested in finding out the names of the different plants and trees that grow in the crater.

Miscellaneous

The silversword blooming is about over as nearly all of the plants are now displaying seed pods with dead leaves below.

Mother nature certainly has taken care of these plants. It is thought that the unusual drought brought on the large and early blooming season, now the crater is receiving more than its share of rain and it is hoped that it will bring about the germination of the millions of seed that are scattered about from these blossoms.

Use of the Park by the public

Travel was still on the increase this month and it is believed by us that is due to the interest in what the army is doing and to the silversword plants with their display of blossoms. Many people are taking their vacations at this time of year on this Island and that has helped the visitors to both the observation station and into the crater.

Visitors

It was very interesting to note the remarks made by Robert Von Tempskey and Richard Baldwin of Ulupalakua and Haleakula Ranches respectively when they were accompanied thru the crater. Both are old timers at going thru this section and both were surprised at the lack of goats seen on their trips this time. Since a definite program has been established here of going all the way around the crater regularly and if not actually killing any goats then scaring them out over the rim, we hope that the noticeable lack of goats as observed by these men means that we are beginning to succeed in our efforts.
600 Protection  Destruction of predatory animals

22 goats were destroyed in the park this month. 9 pigs were also destroyed in the park.
Information for FFW-1

Visitors:
From out of Territory----------182
From the Territory-------------3458

Campers------------------------88 (spent 124 nights in rest houses)
Sightseers---------------------3552

MEMORANDUM for the Superintendent
(Through the Park Naturalist)

The following is my monthly report for August:

I - Public Contacts

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<th>Contacts</th>
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<th>V.P.H.</th>
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<tr>
<td>Museum</td>
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<tr>
<td>Krakatau</td>
<td>430</td>
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<tr>
<td>Tours</td>
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<td></td>
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<tr>
<td>Mauna Loa</td>
<td>12</td>
<td>30</td>
</tr>
<tr>
<td>Park tours</td>
<td>202</td>
<td>324</td>
</tr>
<tr>
<td>Hikes</td>
<td>95</td>
<td>145</td>
</tr>
</tbody>
</table>

II - Fern Weevil Project

All of the time spent on this project was on reconnaissance, except August 6 and 7, which was spent examining fern stems for parasitism. Please refer to the detailed report on fern weevil investigations.

III - Bird Park Shrine Improvement Project

Improvements in the exhibit material of Kipuka Puaua have been made.

All typewritten material has been replaced with hand-lettered text, and in some cases improved.

Water color paintings of the Liwi, Apapane, Elepaio and Amakihi were made by Mrs. Sarah P. Baldwin. Mrs. Baldwin also colored a map for the exhibit.

All the exhibit material has been mounted in pictorial matting, and will be installed as soon as the shrine structure has been moved to its new location.
Naturalist Fagerlund gave me some constructive criticism and help in laying out the mat, while Ranger Eller helped in the printing of the material.

The following things have been called to the attention of Acting Chief Ranger Jess:

(1) A small section of the boundary north of Kipuka Xi does not have hog wire, and as a result there are many goats in this area.

(2) On the same boundary going northeast to Fire Kipuka the fence line is down in several places, as a result of dead koa trees falling over the fence.

(3) The presence of a large boar in Bird Park near the large koa tree.

On Saturday afternoon, August 23, Naturalist Fagerlund and I visited the residence of Mr. Duncan for the purpose of examining the ferns for fern weevil infestation. We found the amaumau ferns rather heavily infested while the tree fern, hapuu, appeared to be unaffected. The stems of the amaumau contained many adult weevil emergence holes, indicating that parasites of the fern weevil are very scarce in this region. Some small emergence holes belonging to some other insect were seen but nothing was seen of the insect that made them. Mr. Duncan evidently appreciated the spirit of the visit, and the effort the park had made in investigating the fern weevil.

Respectfully submitted

Clifton J. Davis
Seasonal Ranger
UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

UNITED STATES NATIONAL PARK

FILE NO.

MONTHLY REPORT
JULY
1941

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.
MEMORANDUM for the Director:

There follows the report of activities in Hawaii National Park during July.

Introduction

Events of more than usual interest were the ceremony at the laying of the cornerstone of the new Volcano House on July 26; Senior Foreman (Wildlife) Paul Baldwin's report of findings which established the presence of bird malaria in the Hawaiian Islands; and the continuation of the exceptional display of flowering silversword at Haleakula.

Personal training was discussed at the weekly division heads' meeting and a program worked out which will be put into effect August 1. The program is designed to familiarize employees with the work of the other divisions by rotating weekly assignments. It is not a fully satisfactory program, but appears to be the best solution possible at this time.

The local Emergency Police Guard was re-organized and the local signal system revised to conform to that adopted by the County Emergency Defense Committee.

Continued low enrollment at the CCC camp and necessity of concentrating on jobs connected with the new Volcano House and completion of the Volcano Observatory and Naturalist Building have prevented resumption of work on the Hina Pali Auto Trail, erosion control and exotic removal projects. The permanent rangers are concentrating on control of the increasing numbers of wild goats in the southern portions of the park.

Weather Conditions

July was one of the perfect months, with a total precipitation of 6.96" at Kilauea. However, as is always the case when the weather is continually fine, the water situation becomes critical. A shortage developed during the last week of the month and it was necessary to obtain 30,000 gallons of water from the park operator. Maximum and minimum temperatures at Kilauea were 79 and 47 degrees, with maximum wind velocity of 16 mph on the last. Maximum and minimum temperatures at the Haleakula
ranger station were 76 and 43 degrees, with only .14" precipitation, which all fell on one day. At the summit observatory maximum and minimum temperatures there were 64 and 35 degrees. No rainfall was recorded for the month, though the .55" recorded on July 1 actually fell on the last day in June.

Special Activities

The superintendent spent the first part of the month on an inspection trip in the Haleakala section, leaving headquarters on July 2 and returning on the 12th. He attended meetings of the Local Draft Board, of which he is chairman, on an average of once a week after his return.

The superintendent was on duty from 7 a.m. to 9 p.m. July 1 at Olaa Postoffice serving as Chief Registrar for the Puna District on registration day.

He attended meetings of the Hawaii Island Blackout Committee on the 28th and the Federal-Territorial Credit Union on the 29th, both in Hilo.

Assistant to the Superintendent E.F. Moonaw, who is President of the Hilo Federal Business Association, conducted the regular quarterly business-dinner meeting of that organization in Hilo on the 26th.

Inspections

Chief Clerk Clifford Davis and Clerk Joseph Bevins of the CCC Field Supervisor's office in Honolulu, arrived on July 9 to check property records incidental to transferring the Fiscal procedure of our CCC camp to the Honolulu office. They returned on the 13th.

General Publicity

As usual, the anniversary edition of the Honolulu Advertiser carried an article on the park.

The Honolulu Star-Bulletin of the 9th contained a picture of CCC Director James McEntee and several industrialists who are cooperating in the drawing up of plans for establishment of CCC training schools to train enrollees in national defense activities.


Maintenance

With the new appropriation available sorely needed repairs were started on quarters and roads. The laying of riprap on the shoulders
of the road across the Steam Flats between park headquarters and the
Military Camp was commenced.

Some complaints have been made by Island residents regarding the
smoothing off of humps on the Chain of Craters road which resulted from
the earthquake swarms in 1938. The basis of these complaints was that
the ridges and cracks were considered a major interest in the park; show-
ing the result of intensive earthquake activity. The road was repaired
because it was found dangerous for traffic and if left unrepaired the
surface would disintegrate until expensive major repairs would have been
necessary.

New Construction

The Volcano Observatory and Naturalist Building (CCG job 54) is
reported 50% complete. With the exception of about 600 square feet,
the roof shingling is complete. The acting camp director reports the
enrollee stone masons are progressing satisfactorily, and states he
believes the work of the stone mason crew stands out as an example of
what the boys can do when really interested in their work.

The second c argue pool at the Volcano House (CCG job 74) is nearing
completion and should be finished in August.

The construction of the combination garage and laundry room (CCG
job 70) built by the enrollee's national defense vocational training
class in carpentry, was finished with the exception of installation of
plumbing fixtures and minor details.

Park Operators

With a simple and dignified Hawaiian ceremony, lasting only about
10 minutes, the cornerstone of the new Volcano House was laid on the
26th. The entire ceremony was under the direction of Mr. William Beers,
representing the Order of Kamehameha. Rev. Stephen Dasha of Kona deliver-
ed the dedication prayer. The superintendent and Dr. Jaggar participated
in laying the corner-stone. In the corner-stone was placed a copper box
containing various historical documents contributed by George Lycurgus,
manager of the Volcano House; Mr. Beers; Dr. Jaggar; Rev. Albert Baker
of the Hawaiian Board of Missions; H. Isomoto, the contractor; the superin-
tendent, for Hawaii National Park; the Honolulu Advertiser and Honolulu
Star-Bulletin. As an indication of the active interest taken by Island
people in the new hotel, there were about 200 persons present at the
ceremony.

Cooperating Governmental Agencies

In accordance with a recommendation made by Field Supervisor Pesonen
and the superintendent transfer of the administrative control of CCG
activities here in the park to Mr. Pesonen's office was approved by the
Director and effected July 1.

During the month 8 boys were enrolled in this camp; and discharged,
of which 6 were expiration of term of service, 3 for securing outside employment and 1 desertion. Fifty boys were taken on a 3-day picnic over the Fourth of July. There were only 16 project days lost due to illness; one because of a minor accident and the remainder for miscellaneous causes.

The First Aid class is progressing satisfactorily and the training in litter-bearing is getting desired results. In the event of an emergency it is believed that the two teams comprising 8 boys each would be obtainable for any occasion in the park area.

All three defense training vocational classes - welding, carpentry and auto mechanics - are making noticeable headway; and 4 enrollees of the welding class have obtained positions as Pearl Harbor skilled laborers.

Upon inquiry by this office, advice was received from the Regional Office that OGC Camp Director Frank O. Huston, who was on the mainland on leave, was submitting his resignation, effective at the expiration of his annual leave, July 15. However, at the end of the month this had not been received.

The annual resume of park activities was compiled and submitted to the Governor of the Territory on July 12.

The ranger in charge of the Haleakala section reports that the Army camp on the flat above Puna Manian and below the ranger station is rapidly taking shape. One building is up and the foundations for the others in place. The Army is also pushing work on the extension of the Haleakala road to Red Hill. This work of necessity makes a conspicuous scar on the landscape.

Lectures, Guide Service, etc.

Three groups of personnel from Navy ships visiting Hilo harbor (numbering 208); 18 members of one of the Honolulu Senior League Baseball Teams; and 10 members of the Fernandez Circus were given special service. One lecture was given on board the USS Borac.

Seasonal Rangers Willard W. Eller and Clifton J. Davis, were assigned full-time to the park naturalist to assist in the interpretative activities. These assignments were made in order to release for the summer the permanent rangers for important work in outlying sections of the park. This arrangement provides two full-time assistants for the park naturalist, enabling him to concentrate on public contact and research work and enables the rangers to give more attention to park protection, patrol, and control of wild goats, etc. The naturalist finds this a satisfactory arrangement.
Research and Observation

A few earthquakes continue to occur along the northeast rift of Mauna Loa, and the 1940 cone in Hokuaweoweo continues to fume quite noticeably. Solfataric activity on the 1940 lavas appears to have increased.

Two earthquakes that were strongly felt in the Kilauea area on July 8 had their origin at the junction of Byron and Waldron Ledges. Their occurrence indicates a slight sinking at the north end of Kilauea crater. The rapid southerly tilt that set in about March 10 and continued until early in July indicated that such a sinking was to be expected.

Messrs. Finch, Fagerlund, and Schulz spent July 22 to 24 on a trip to the summit of Mauna Loa.

Two species of bird malaria were discovered in blood smears made from birds in the park in 1938 and 1939. The findings were transmitted to us by Dr. J.E. Shillinger of the Fish and Wildlife Service. The ecological implications of this discovery may be far-reaching. In the first place, the cardinal fact that bird malaria is present in the Hawaiian islands is established. In the second place, it shows that, while there are no records as to mosquito hosts which serve as vectors for P. vaughani, mosquitoes capable of transmitting this parasite are present in the islands.

Ranger Hjort at Haleakala made a count of silversword in bloom in the crater and found a total of 916 flowering plants.

Increase or Decrease in Travel

Travel to the Kilauea section amounted to 38,505 as compared with 38,230 for July 1940; and at Haleakala the ranger in charge reports 3060 visitors as compared with 1850 for last year. He believes this large increase was due to the visitors' interest in the silverswords which were flowering profusely and curiosity regarding the Army's activities in the park.

Visitors

Territorial Forester William Crosby, was a visitor in the park for a few days and given special attention by Ranger Olson.

Ranger Service

Seasonal Rangers Willard M. Eiler and Clifton J. Davis, both Island boys, entered on duty July 1. With the transfer of Ranger Howard A. Powers (now on military furlough) to the position of assistant geologist, Ranger Frank A. Hjort was appointed to the position of ranger in charge.
of the Haleakala section, effective July 1. Ranger F.E. Schulz received an appointment, also effective July 1 to the position of junior geologist for the duration of Dr. Powers' military furlough.

Police Protection

With the re-organisation of the local Emergency Police Guard, one squad is continually on duty after dark for the purpose of patrolling, listening for radio blackout signals, and to be on the alert for any possible emergency.

Building Fire Protection

The regular monthly fire drill was held at the CCC camp.

A small fire occurred in the garage of one of the private cottages in the headquarters area the evening of July 9, which was extinguished before any great amount of damage had been sustained. It was discovered by a passing motorist and reported to one of the staff members. Cause was apparently hot ashes which had been dumped behind the garage. The fire provided an excellent test of the organization and recently constructed combination fire truck and pumper.

Miscellaneous

The regular quarterly meeting of the Hawaii Natural History Association was held at Uwekahuna lecture hall on July 28.

Edward G. Wingate
Superintendent
Party of group officiating at laying of Volcano House cornerstone. Former County Attorney W.H. Beers, at left of picture, wears replica of ancient Hawaiian feather cap. Others in front row are Dr. T.A. Jaggar, Mr. George Lycurgus, and Dr. Albert Baker of Honolulu. Immediately to the left of George Lycurgus can just be seen the head of Rev. Stephen Desha, who conducted the ceremony. Mr. Desha is one of the outstanding Hawaiians in the Territory. He and the superintendent* who stood next to him - both attended George Washington University.

7-26-41 Partially Finished, Waianae
Representatives of Hawaiian women's societies and music groups who gave several ancient chants and some modern music during the cornerstone laying ceremony at the new Volcano House, July 26.

Showing progress on CCC job 72, connecting trail from new Volcano House to Halemaumau trail.

Park force account job, riprap work on shoulders of Mamalahoa Highway, on Steam Flat, just west of park headquarters.
MEMORANDUM FOR THE SUPERINTENDENT
THROUGH the Camp Director.

SUBJECT: Monthly report on bird conservation work for July 1941.

Census

Routine census counts on established plots were taken. One nest census was taken in addition. Results were tabulated in the office.

Life History

Nesting studies were continued along with observations on banded birds. The card file for life history observations was completed with transference of all records since April 1940 to classified cards.

Territoriality in the amakihi was studied by plotting of territories of banded birds on map. Numerous field observations were made in connection with life history analysis.

Nene habitats were visited, but the flock was not located in the park during July. Omao were found in the sparsely vegetated region of the 1881 lava flow on Mauna Loa at 6500 ft. elevation and above. Omao were also found to be abundant below Napau Crater on the Puna rift.

Food Habits

Dried Nene droppings were collected (2 pints) from natural habitats in the 3-trees Kipuka and 1881 lava flow regions on the slope of Mauna Loa for food habits analysis. Omao droppings were collected for analysis from the 1881 flow region.
Parasites and Diseases

Two species of bird malaria were discovered in blood smears made from birds in Hawaii National Park in 1938 and 1939 by the writer and Donald P. Abbott. These findings were transmitted to us by Dr. J. E. Shillinger of the Fish and Wildlife Service. The parasites and hosts were:

<table>
<thead>
<tr>
<th>Bird malaria</th>
<th>Host bird</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plasmodium vaughani</td>
<td>Liothrix lutea (babbler or Japanese hill robin)</td>
</tr>
<tr>
<td>Plasmodium sp?</td>
<td>Lophortyx californica vallicola (valley quail)</td>
</tr>
</tbody>
</table>

The ecological implications of this discovery may be far-reaching. In the first place, the cardinal fact that bird malaria is present in the Hawaiian Islands is established. While it cannot be stated with certainty that Plasmodium was not present in the native bird population before the practice of introducing and liberating perching birds from other parts of the world was started, the fact that what is considered to be Plasmodium vaughani has been reported from the babbler in Japan is a strong indication that infected birds were at one time imported to these islands. In the second place, it shows that, while there are no records as to mosquito hosts which serve as vectors for P. vaughani, mosquitoes capable of transmitting this parasite are present on the islands.

Whether Plasmodium was here before or not, we know that it is here now, and a reservoir of bird malaria parasites is on hand. The next question becomes; What species of birds in Hawaii are susceptible to infection by this type of bird malaria? Will the native birds become infected?

Data on hand are not adequate to answer this question completely. Out of 11 babblers and 4 valley quail examined, one of each species had bird malaria. Out of the following native Hawaiian birds examined, no bird malaria infections were reported:

9 Hawaii elepaio (Chaeomelia sandwichensis)
8 Hawaii amakihi (Chlorodrepana virescens)
5 anapane (Himatione sanniae)
2 iiwi (Vestiaria coccinea)
1 akia polaka (Heterorhynchus wilsoni)
1 Omao (Phaerornis obscura)
27 - total
This is at least some indication that there was no high incidence of bird malaria in the native birds and possibly none at all. The examination of a larger number of birds will be required in order to answer the question satisfactorily. Certain species of Plasmodium are readily transferable to many species of birds, while others are limited to one or a very few hosts. P. vaughani is one of the latter group, and in North America it has been found only in the robin (Turdus migratorius), a member of the thrush family to which our own belongs in nature, though it has been successfully inoculated into the canary.

It is regrettable that it was not possible to determine the species of Plasmodium found in the quail, for at least up to January 1, 1940 the valley quail was not known ever to be parasitized by Plasmodium, according to Redginal Hewitt in his recent monograph on bird malaria ("Bird Malaria", Johns Hopkins Press, 1940).

Birds present in Hawaii National Park from which various species of Plasmodium previously have been reported from other parts of the world are: skylark (Alauda arvensis), cardinal (Cardinalis cardinalis), house finch (Carpodacus mexicanus), domestic fowl (Gallus domesticus), babbler (Liothrix lutea), the genus Loxia (to which our ricebird belongs), English sparrow (Passer domesticus), pheasant (Phasianus colchicus), Longolian pheasant (Phasianus moncolicus), and the genus Zosterops (to which the whiteeye belongs).

Out of 6916 birds which have been examined for bird malaria in different parts of the world, 5.8 per cent were found to be infected (Hewitt, p. 25). This is considered to be a representative percentage, and, according to Hewitt, is what might be expected from blood-smear examinations in almost any region where a survey is made. Biological truths which apply to the rest of the world do not always hold true for the Hawaiian Islands, because of their isolation. However, two positive cases out of 42 slides gives an incidence of 4.8 per cent, which is slightly less than what might reasonably be expected in other parts of the world. If this ratio is found to hold when a larger number of slides has been examined, the bird malaria problem in Hawaii should probably not be considered serious under normal conditions, unless the parasite is found to produce more severe pathological effects upon Hawaiian birds than upon birds in other parts of the world.
The severity of human malaria, which is closely related to bird malaria, leads one to suppose that bird malaria is a dangerous and fatal disease in birds. This is an assumption which should not be accepted without examination. Concerning the question of whether bird populations infected with bird malaria suffer a high degree of mortality, Hewitt says (p. 25):

"Little is known about the effect of malaria on wild birds in nature; whether the parasites cause any great loss to the bird population is an open question."

In other words, the ecology of bird malaria has never been worked out sufficiently to know how serious its effect may be upon the wild bird population. For the Hawaiian birds, this question can only be answered by continued ecological work.

Reconnaissance

All day trips were made to the following localities:

- Forest above Waiakea plantation, S. Hilo district, elev. 1600 ft.
- Olaa flume, Puna and S. Hilo districts, elev. 2000 ft.
- Puu Oo trail, S. Hilo district, elev. 2000 to 3000 ft.
- Napau Crater and Puna rift to east, elev. 2750 to 2250 ft.
- 1881 lava flow region, H. H. P., elev. 6350 to 7400 ft.
- Kolekole stream, S. Hilo district, elev. 1500 to 2000 ft.

The purpose of the trips was to obtain more detailed information concerning the distribution of native and exotic birds in the general region. It was found that though the native forest around the Olaa flume is in excellent condition, it is nearly void of native Hawaiian birds. On the Puu Oo trail above Hilo apapane and amakini did not appear till about 3000 ft. elevation was reached, though the elepaio and possibly Loxops occurred below this. The Puna rift wilderness below Napau Crater appears to be the most promising area visited. The scarce Omao is abundant there, and the likelihood of other rare Hawaiian birds existing there is great. The forest showed no pig damage at all east of Napau crater. The rare Viridonia (green solitaire) was not seen in the Kolekole stream vicinity, which is
a few miles from its only recorded habitat (Kawiki).

Miscellaneous

In connection with the study on the effects of grazing on koa reproduction, ground cover plants were collected and sent to Mr. Hosaka for identification and the section of the report on ground cover was rewritten. The completed report was discussed in a committee meeting and a few suggestions were made.

Notes on plant succession on the 1922 lava flow in Napau crater were made in a systematic manner by use of meter quadrats.

Respectfully submitted,

Paul H. Baldwin
Senior Foreman (Wildlife)
### DISTRIBUTION OF WORK ON PROJECTS BY DAYS

<table>
<thead>
<tr>
<th>Date</th>
<th>Census</th>
<th>Life History</th>
<th>Food Habits</th>
<th>Parasites and Diseases</th>
<th>Reconnaissance</th>
<th>Miscellaneous</th>
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MEMORANDUM for the Superintendent:

Monthly report for July 1941

Weather Conditions

The past month can be classed as one of the most perfect months that the writer has experienced in the Islands, but as usual when we have this beautiful weather the water situation becomes critical. It is the firm opinion of the undersigned that for the park to operate efficiently in the future, additional water storage facilities are mandatory.

Special Activities

The month was spent almost entirely within the office on routine duties of administration with the exception of one field inspection of the Chain-of-Craters road repairs, incidental duties in arranging and conducting the quarterly meeting of the Hilo Federal Business Association and holding a hearing (July 15) on the unauthorized absence of Laborer William Elderts Jr. The hearing was on the 16th and made the subject of a separate report.

Maintenance

Annual maintenance of roads and buildings was started during the month, consisting of repairs to the Chain of Craters road, shoulder repair work across the Steam Flats on section 3A of the Hamakua Highway, and general repair and painting of quarters No. 6.

New Construction

Work on the Volcano Observatory and Naturalist Building by the CCC is proceeding satisfactorily, with framing and sheathing being completed during the month, and at month’s end the roofing was about 95% complete and concrete work complete with the exception of one outside stairway and the area-way floor behind the machine shop. One cesspool at the Volcano House was completed.

The Volcano House construction was delayed due to inability to receive a shipment of copper pipe for the heating system, but it has now arrived and been installed.
Cooperating Governmental Agencies

Chief Clerk Davis and Assistant Clerk Joseph Rawlins of the Honolulu office of the CCC were in the park from the 9th to the 12th on duties incident with the changes of the camp's administrative control from the park to the Honolulu CCC office.

Research and Observation

The writer felt two earthquakes on the 8th, one at 10:30 a.m. and the other at 8 p.m. These were the first quakes that the writer had noticed for almost a year.

A very pronounced fume column was noticed at 5:30 p.m. the 23rd rising above Koko Head. This fume appeared to be rising from the 1940 source cone.

Ranger Service

Messrs. W.M. Eller and Clifton Davis reported for duty as temporary rangers on the 1st. This is Mr. Eller's second season with the park and Mr. Davis' first. Both of these men are permanent residents of the Islands.

Building Fire Protection

A false fire alarm was sounded by a curious CCC enrollee at 9:30 a.m. of the 9th. Naturally this caused momentary confusion as no one could tell where the supposed fire was located. However it proved the flexibility of the park's fire brigade organization as the pump and fire truck were ready for action within one minute of the alarm. The enrollee was warned in no uncertain terms about the consequences in the event of a repetition of the offense.

Mr. William Mainaupu, manager of the Keauhou Ranch discovered a fire in the garage of the Beer's cottage, while passing at 7 p.m. Alarm was given and the fire was extinguished within 15 minutes after discovery. This was an excellent test for the recently assembled fire truck.

Safety

The regular meeting of the Park Safety Committee was held on the 28th. Separate report was submitted.

B.F. Moomaw, Jr.
Asst. to the Supt.
Memorandum for the Superintendent

Subject: Foreman's monthly report for month of July, 1941

Routine maintenance such as garbage disposal, kerosene delivery, office janitor work, road-side clean-up, pumping water, cutting of lawns were carried out during month.

Work was resumed on stabilization of road shoulders in steam flats, with the hiring of three additional laborers. It is hoped to complete this job by August 16, so as to get started on repairs of Sandalwood Trail.

Repairs to siren circuit were made by Ranger Jess and myself. We are now working on a plan to install the above mentioned circuit in the telephone cable, thereby eliminating the now existing over-head line, which is in a very poor state of repair.

I attended the Police Guard meeting at the Hilo Police Station on the evening of July 9, 1941.

Six trips were made to Hilo to purchase and haul supplies.

Respectfully submitted,

[Signature]

Foreman of Construction & Maintenance
MEMORANDUM FOR THE SUPERINTENDENT:


A few earthquakes continue to occur along the northeast rift of Mauna Loa. The 1940 cone in Holowowoeo continues to fume quite noticeably. Solfataric activity on the 1940 lavas appears to have increased.

Two earthquakes that were strongly felt in the Kilauea area on July 8 had their origin at the junction of Byron and Waldron ledges. Their occurrence indicates a slight sinking at the northern end of Kilauea Crater. The rapid southerly tilt that set in about March 10 and continued until early in July indicated that such a sinking was to be expected.

The following table gives some of the quantitative data obtained during July:

<table>
<thead>
<tr>
<th>Week ended</th>
<th>Tilt</th>
<th>Crack movement (millimeters)</th>
<th>Seismic disturbances</th>
<th>Seismicity</th>
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<tbody>
<tr>
<td>July 6</td>
<td>Slight SE</td>
<td>1.0 opening</td>
<td>7</td>
<td>2</td>
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<tr>
<td>13</td>
<td>&quot; WWN</td>
<td>0.5 closing</td>
<td>11</td>
<td>7.25</td>
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<td>20</td>
<td>&quot; NWN</td>
<td>1.0 &quot;</td>
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<td>5.08</td>
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<td>27</td>
<td>Mod. NWN</td>
<td>0.5 &quot;</td>
<td>13</td>
<td>3.75</td>
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Work of R. H. Finch

Considerable time was spent in committee meetings dealing with emergency police guard, the CCC garden, and training Park personnel. The remainder of the material stored in the attic of the old Observatory was moved to the new storage room. July 22-23 and 24 were spent on a trip to the summit of Mauna Kea with Morsa, Jagerlund and Schulz. The new instrument shop was nearly completed and painted during the month, and a start was made on installing the line shaft.

Work of P. E. Schulz

The reading and interpretation of seismograms took up the major part of each day. A part of a day of each week was spent in compiling reports and in measuring cracks. The weather report for the preceding month was made out.
tilt charts were plotted, and the final locations of earthquakes were determined. Among the miscellaneous duties performed by Mr. Schulz were helping set up the H-S component of the Bosch-Okori seismograph; making comparative tilt studies; finishing the seismological portion of the Apr-June number of the Volcano Letter; putting some finishing touches on the Museum relief model of the Island of Hawaii; assisting in suppression of the fire at the Beers' cottage; making a trip to the summit of Mauna Kea; and a total of about 1/2 day in lecturing and showing pictures to visitors.

Work of B. J. Loucks

Nearly half of Mr. Loucks' time was spent in the routine care and changing of seismographs. On July 2 the Bosch-Okori seismograph which had been out of commission for a day or two was restarted. Besides the daily routine, the remainder of his time was spent as follows:

<table>
<thead>
<tr>
<th>Date</th>
<th>Task Description</th>
<th>Hours</th>
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<tr>
<td>July 1</td>
<td>Worked on line shaft bearings</td>
<td>12</td>
</tr>
<tr>
<td>4</td>
<td>Cleaned and oiled clocks for Uwekahuna and strong motion seismographs</td>
<td>3</td>
</tr>
<tr>
<td>4-22</td>
<td>Worked on line shaft bearings</td>
<td>41/2</td>
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<tr>
<td>23-28</td>
<td>Sizing pulleys and belts for line shaft</td>
<td>14</td>
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<tr>
<td>29-30</td>
<td>Running in line shaft bearings</td>
<td>9/2</td>
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<td>31</td>
<td>Cut down commutator for Mr. Quick</td>
<td>2</td>
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<tr>
<td>31</td>
<td>Built up main drive pulley</td>
<td>11/2</td>
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R. H. Finch
Volcanologist
MONTHLY REPORT OF ACTING CAMP DIRECTOR, HERBERT R. RENNE TO PARK SUPERINTENDENT
EDWARD G. WINGATE FOR THE MONTH OF JULY, 1941

During the month we enrolled 8 boys and discharged 10; of which 6 were for Expiration Term of Service, 3 for Securing Employment, and 1, Dismissal for Deseretion. The boy who was dismissed was Paul Nakamyo, who had been sent up from Honolulu. Upon checking his records it was discovered that he had enrolled under a different name and when he found out that the writer personally knew him from a previous enrollment, he deserted from camp. We averaged 148 enrollees as our Camp Strength for the entire month. This is seven (7) enrollees more per day than last month and I believe that we have been very fortunate in being able to maintain this strength concerning the opportunity for employment outside.

Fifty (50) enrollees were taken for a three-day picnic over the Fourth of July to Naalehu. The boys enjoyed themselves very greatly and conducted themselves in a very commendable manner. It is expected that one such picnic outing per month will be sufficient to maintain the morale of the boys as a whole.

Clifford Davis and Joseph Rollins from the Honolulu office arrived on the 9th to assist in checking of property records incidental to transferring the fiscal procedure over to the Supervisor's office. They assisted greatly in the getting out of the annual inventory which was mailed to the Regional Office on July 13.

Dr. Phillips who had been on leave that latter part of June returned to duty on the first of the month.

Foreman John Makaimoku, who was also on leave returned to duty on July 7.

The necessary renovation of the bath house has been started and it is expected that it will be completed as soon possible as it was in need of attention so that the sanitation of the whole building will be taken care of properly.

The fire and sanitation inspection conducted by Chief Ranger Christ showed a few discrepancies which have been corrected as reported in another memorandum.

The dispensary clerk reports sixteen (16) project days lost due to various causes which are as follows: one (1) day lost due to a minor accident, three (3) days lost due to colds, and twelve (12) days lost due to miscellaneous causes.
The Doctor's Report shows that sanitation, etc. in the camp is in general good condition with the exception of plumbing in one of the latrines. This was unavoidable due to not obtaining a lead trap which had been back ordered. This particular item has now been secured and it should not occur again.

It is interesting to note that the First Aid Class is progressing very satisfactorily and that the training in litter-bearing has gotten the desired results. In occasion of an emergency the writer believes that two teams consisting of eight (8) boys as litter-bearers would be obtainable for any occasion in the Hawaii National Park Area.

There were two Safety Meetings for the Month of July, both conducted by Acting Project Superintendent, Samuel Milne and are getting the desired results.

The general condition in regard to morale too, etc. is continuing very satisfactorily.

JOB REPORT

Job 54: Observatory And Naturalist's Building.

The shingling on the roof of this building has been completed with the exception of six hundred (600) feet. The reason for this is that we ran out of shingles and had to reorder; provision for procuring these shingles have been taken care of. Since the Hilo Iron Works had to order it from the mainland it is expected not to receive the shingles for about two months. The siding, window framing and window-areas are being installed and progressing nicely. The enrollee stone masons are progressing very satisfactorily and the writer is more than pleased with their work. Of all the job training I believe the stone mason crew stands out as an excellent example of what a boy can do when he really is interested in his work.

Job 74: Cesspool, Volcano House.

The second cesspool on this job is nearing completion and should be completed shortly.

Job 72: Landscape Development.

The Landscape crew has been very fortunate in their planting with a very few percentage of loss. The writer believes that the Landscape Architect has been responsible for this high percentage of results since he was instrumental in starting a new planting idea.

Job 70: Construction of Combination Garage And Laundry Room.
UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
HAWAII NATIONAL PARK
HAWAII
Monthly Report—Park Superintendent  -5-  August 4, 1941

The construction of this building is now completed with minor
finishing and plumbing installations to be done. Various others man-days
were used in the continuation of other projects such as the Operation
of Incinerator and Education Guide and Contact, etc.

VOCATIONAL TRAINING FOR DEFENSE TRAINING

WELDING:

The Welding Class under Instructor Quick is continuing and four (4)
boys left during the month to try for placement at Pearl Harbor.

CARPENTRY:

The Carpentry Class has really been doing excellent work, the results
of which are very noticeable. Mr. Russell, the Instructor has been concentra-
ing on his class in making them learn the various principles of Carpentry.

AUTO MECHANICS:

The Auto Mechanics Class with ten (10) full-time boys have been very
helpful in keeping our rolling stock in excellent repair. This class is really
achieving a two purposed idea. One, in training the boys in being mechanics,
and the other in maintaining the repair of all our CCC equipment. The writer is
more than pleased with excellent showing of the Job Training Classes and to say
that it will be continued till June 30, 1942.

Respectfully submitted,

Herbert R. Rennie
Acting Camp Director

HRR/rn
MEMORANDUM for the Superintendent.

The following is the Chief Ranger's report of the activities of the ranger division for the month of July.

All work was confined to normal routine and no outstanding event is listed.

Weather Conditions. Rainfall for the month was 5.36 inches. Rainfall for the period January 1 to date is 39.20 inches. A water shortage developed during the last week of the month and it was necessary to obtain 30,000 gallons from the park operator.

Maintenance. Routine maintenance of the telephone system, traffic counters, trails, and signs was carried out during the month.

Lecture and Guide Service. The following public contacts were made by members of the ranger division:

8 park tours for 209 persons.
4 hikes for 74 persons.

Increase in Travel. Figures for the month show an increase of 13,177, or 32% over those for June. The total number of persons for July is 38,505, compared with 38,230 for July, 1940. The present increase is attributed to a much larger number of Island people visiting the park during their summer vacation, and the definite upward trend of military traffic.

Visitors. Persons of note contacted during the month include Mr. Wm. Crosby, Territorial Forester, who was given special attention by Ranger Olson.
Ranger Service. Temporary Rangers Davis and Eller entered on duty July 1 and were assigned to the Park Naturalist.

Routine night patrol, flag duty, and switchboard assignments were carried out. Patrol trips were made to the summit of Mauna Loa, to Pepeo Crater, Puu Koa, and the seacoast areas of Apau, Kekahe, and Kona. Some boundary fence in the area West of Puu o Na Hoomakule was repaired, as well as a break in the West boundary fence of Aiakou.

During the Mauna Loa trip it was noted that the sulfur deposits in the vicinity of the 1935 cone are increasing, and considerable fume continues to issue from the 1940 cone in the summit crater.

The annual report of road and train construction mileages was prepared. Some work has been done on a check of the acreage contained in the various additions to the park, preparatory to working out a summary of forest and ground cover acreages.

A broken stave in the water tank at Namakani Paio was reported during the month. We were unable to discover sufficient evidence to determine the guilty party and the breakage was reported to Mr. Quick for repair.

Fourteen goats and six pigs were destroyed during the month.

The inventory of park fire equipment was completed and the necessary reports prepared and submitted. The final estimates for Fire Prevention and Fire Protection for Fiscal Year 1943 were prepared and submitted for approval.

Ranger Olson is working on an inventory of the park sign system and a detailed report will be submitted when this is completed.

Assistance was given to two motorists during the month. Four reprimands were given to persons guilty of heedless driving.

The regular Tuesday staff meetings were attended, as well as one meeting of the Safety Committee.
The water tank at Kipuka Nene was cleaned and refilled during the month. Some reconnaissance work has been done, preparatory to selecting a site for a temporary shelter to be used by the park warden. This is to be located West of the lands of Kealakomo and just makua of Pololokaweao Falls.

Regular weekly inspections of the powder and cap houses have been made and everything has been found to be in good order.

Forest Fire Protection. The annual statistical report of forest protection equipment was prepared and submitted during the month. No fire have occurred, but the hazard is increasing in the grassland areas, due to the continued dry weather.

Building Fire Protection. A fire drill was held at the CCC Camp during the month. A course of instruction in fire fighting methods and the operation of the camp fire brigade is being started.

A false fire alarm was turned in on the 9th. by a CCC enrollee who pushed the alarm control accidentally.

A building fire occurred at the Beers' cottage on the 13th. and has been covered by a separate report.

The annual statistical report of building fire equipment was prepared and submitted. The regular quarterly fire and sanitation inspection was completed and Ranger Olson's report is attached.

Miscellaneous.

The work done to eliminate the rough spots on the Chain of Craters road is a decided improvement. However, some disapproval has been voiced by Island residents because we removed an interesting natural exhibit of Madame Pele's handiwork.

An increase in the number of exotics visible from the Rim Road in the Lava Tube and Fern Jungle areas has been noticed. At the old rubbish dump near Keahakaloki Crater a strong growth of beans has sprung up and the plants are climbing the ohia trees in the area. It is recommended that control measures be started as soon as possible.

Weekly inspections of the garden areas have been made by Mr. Finch and the Chief Ranger.

Acting Chief Ranger.
MEMORANDUM for the Superintendent through the Chief Ranger:

My ranger’s report for July, 1941, follows:

Contacts:
- July 2, 250 Tour for 50 persons, 8 hours.
- 7, Bird Park Hike for 10 persons, 1½ hours.
- 12, Inter-Island Tour for 41 persons, 12 hours.
- 15, Tour for USS Boreas, 38 persons for 2 hours.
- 22, Tour for USS Ward, 40 persons for 2½ hours.
- 24, Rev. and Mrs. Albert Baker to Hilina Pali.
- 28-29, Territorial Forester Crosby to Mauna Loa Truck Trail, Bird Park and Hilina Pali.

Miscellaneous.
All regular routine duties were done as directed.
Several days were spent at the tree nursery, transplanting, repotting and watering.
Two days were spent with Mrs. Hasagawa collecting fireplace material.
A trip to Halepe was made July 5-6, with the Chief Ranger. Three goats were killed.
Quarterly Fire Inspection of everything but the CCC camp was completed. All hydrants and fire valves were painted and all extinguishers, tested, inspected and filled.
Several days were spent in a search for a park horse.
A physical inventory was taken of all park signs. A separate detailed report will be submitted covering this.
Patrol trips were made on the following trails and obstructions cleared; Kilauea Iki, Giant Koa-Six Tanks, Keanakakoi crater, Mauna Iki, Fern Forest and trails back of Volcano House, Old Kaahou Road, Cockette Trail, Puu Halohalu, Byron Ledge, Halemauma, Sandalwood and Crater Rim Trails. Kilauea Iki Trail from Lava Tube to the crater floor is in need of having the grass cut in the trail tread.

Wildlife.
The annual Manuiki Society field trip was attended. The hike followed the Puu Co Trail six miles toward Mauna Kea from Kamman.
MEMORANDUM for the Superintendent through the Chief Ranger.

The following is my narrative report for the month of July.

Two hikes and three tours were conducted for a total of 78 persons. Temporary rangers Davis and Eller were given training in this work.

Routine assignments of flag, switchboard, patrol, and radio listening duty were carried out.

Repairs were made to the park switchboard, Mr. Moomaw’s office telephone, the CCC Camp instrument, and the call bell at the Kilauea Military Camp switchboard. The park’s supply of portable telephones were checked, repaired, and placed in good order. The Chief Clerk’s adding machine was repaired. New hoses were installed on the park traffic counters and batteries replaced where needed. Repairs to the control system of the park siren were made by Mr. Quick and myself. A break in the Hawaii Telephone Company’s line near the Hawaiian Dredging Company’s cottage was repaired by Ranger Olson and I.

Routine building inspection was accomplished. Assistance was given the CCC organization in routine engineering work.

The inventory of park fire equipment was completed and the necessary reports submitted. I assisted in the suppression of a fire at Seers’ cottage on the 13th.

Chief Ranger Christ began his annual leave on the 21st., at which time I took up the duties of Acting Chief Ranger.

Arthur L. Jess
Park Ranger.
UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
HAWAII NATIONAL PARK
HAWAII

August 1st, 1941.

Memorandum to the superintendent through the office of the Chief Ranger

Subject: Narrative report for July 1941.

Routine Duties
These activities for the month included regular assignments at Patrol, Night Check, Flag Duty, and switch board.

Misc. Duties
Telephone line maintenance, drafting, brushing out trails and telephone lines, rounding up park horses, painting miscellaneous signs, hunting lost park horses, hauling water to Milina Pali, etc.

Contacts
July 3rd-Sandalwood Trail Hike (Spec Party) 13 people - 1½ hours
Three warnings given speeding motorist

Cut Side Activities
Attended two meetings of the Toastmasters Club and the Camera Club.

Suggestions and comments
That the picnic areas at the Summer Camp, Bird Park, and Prison Camp be re-conditioned. The improvements would be the replacing of a few missing boards on the shelter houses, re-surfacing picnic tables, repair sanitary facilities, erect one or more outside stone fire places in each area for camp or picnic cooking and the painting of all buildings at each area.

The recent fire at Beers' cottage, the writer was the first one to the park fire equipment house and drove the fire truck to the scene of the fire. In the utility area, 3 men boarded the truck, two sitting in the seat with the driver and one standing on the running board. Proceeding through the residential street, I could have picked up several more, but could not do so without almost a dead stop at each pick-up. Also, there was not a logical place to carry additional men. It is in no way practical to take such equipment to any fire under manned. There fore I wish to suggest adequate facilities be provided as indicated on the attached sketch.

These comments are made for the good of the service and not intended to transgress on the sphere of any member of the staff.

Respectfully submitted,

Chas. W. Miller
Ranger
Memorandum to Superintendent Edward G. Wingate through office of Chief Ranger J. H. Christ.

Enclosed are the monthly narrative report, the travel report, information for FFU-1, and the 1005-Met'1. reports from the summit and the Ranger Station.

Frank A. Hjort
Ranger in Charge
Memorandum to Superintendent Edward G. Wingate through office of Chief Ranger J. H. Christ.

The following narrative report of the Haleakala Section for the month of July, 1941 is respectfully submitted.

000 General

010 Introduction

The army camp on the flat above Puu Nianiau and below the Ranger Station has begun to take shape and is rapidly beginning to mar the landscape. One building is up and the foundations for the others are in place. On Red Hill there is now a great scar from the new road that is being pushed to a rapid completion.

Superintendent Edward G. Wingate visited this section of the park from the 3rd to the 11th.

020 General weather conditions.

The winds at The Ranger Station this month were mostly from the east except during the heat of the day when they were from the southwest or up the hill. The Max. for the month was 75 and occurred on the 6th, 10th, 11th, and 24th. The Min. was 43 and occurred on the 16th. Rain fell on one day, the 3rd, to total 0.14 inches. There were 22 clear days, 9 partly cloudy days, and no cloudy days in this month.

Winds at Pakaoao Observatory this month were all easterly. The Max. and Min. were 66 and 35 respectively and occurred on the 16th and 28th for the Max. and the 4th for the Min. No rain fell during the month. The 0.55 inches recorded on the 1st actually fell on the last day of June. There were 17 clear, 13 partly cloudy and 1 cloudy days this month.

100 Administrative

120 Park inspections by

121 Superintendents

As mentioned in the introduction Superintendent Edward G. Wingate made an inspection of the park on his visit here during the first of the month. The members of this section wish that more frequent visits could be made by more of the personnel from Kilauea Section.

300 Activities of other agencies in the park
Public Service Contractors

Character of service rendered the public

No service has been rendered the public by the Maui Grand Hotel this month at the Nakalele Observatory.

Flora, fauna, and natural phenomena.

Miscellaneous

During the middle of the month Ranger in Charge Frank A. Hjort made a three day trip into the crater for the purpose of counting the silverswords in bloom. Nearly all the important patches within the crater were visited and some on the rim. A total of 815 blossoms were counted. Many of the plants are now at the stage when seed should be gathered if it is to be done.

Use of the park by the public

Increase or decrease in travel

A substantial increase amounting to 18% was recorded in the travel for this section this month. The increase was due to the fact that the silverswords are in bloom and to the curiosity of the people to see what the army is building within the park.

Protection

Destruction of predatory animals.

37 goats were destroyed in the crater this month, 15 were nannies and 22 billies. Two pigs were killed and also one wild cat.

Misc.

The navy Aeroographer stationed here for the last three months left on the last day of the month for his base at Pearl Harbor. Whether or not he will be replaced remains to be seen.
Information for FNU-1

Visitors:

From out of Territory--------249
From the Territory----------2811
                            3050

Campers----------------------53  (Spent 70 nights in rest houses)
Sightseers-------------------3007
                            3060
UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
HAWAII NATIONAL PARK
HAWAII

August 3, 1941

To Superintendent Edward G. Wingate
Through the Asst. Park Naturalist.
Subject: Monthly Report for July, 1941

Sir:
Following is a brief summary of my monthly report:
I reported for duty on July 1, filled in necessary forms, and after a discussion with Naturalist Fagerlund, was assigned to two projects namely: Bird Park Trail Shrine, and Fern weevil research.

The first two weeks were spent accompanying Rangers Olson, Jess, and Naturalist Fagerlund on various park tours and hikes, and reading up on the interpretive material in the files of the Naturalist office.
During that time, I made a trip to Hilo with Ranger Eller to be sworn in, and responded to a fire alarm on the evening of July 13.

In the last two weeks my time has been divided between public contact work and work on the Bird Park Trail Shrine, which is nearing completion.
Ranger Eller has been helping me with the map of Bird Park.

In regard to the fern weevil project I have been assembling the bibliography of this beetle (Syagrius fulvipes), and will be ready very shortly to make a preliminary survey of infested areas in the Park.

(Suggestions): I would like to suggest that our Naturalist Program be shown on slides at the K.M.C. Theater nightly. I think that this would help out a lot in the response to our program.

Respectfully submitted,

[Signature]
Seasonal Ranger
To Superintendent Wingate

Through the Office of the Chief Ranger

Subject: Report for the Month of July

On July 1 I reported for duty and signed the necessary papers to put me on the payroll. Later I had a conference with Mr. Moomaw, Naturalist Fagerlund, and Chief Ranger Christ in which my duties for the summer were outlined. The remainder of the afternoon was spent with Naturalist Fagerlund in outlining specific details of my work.

A trip to Hilo was made on the 3rd to get my Oath of Office notarized.

I attended the fire drill on the 2nd and reported at the fire at the Beer's cottage on the 13th.

Until the 12th of the month and also on July 18 I accompanied full time staff members on their public contact tours to review and familiarize myself with the area. During that time I also studied the interpretive material in the Naturalist's files and gathered material for the lectures I have been giving.

At Mr. Fagerlund's request I have been working up material for a geologic guide leaflet of the park. I have spent most of my spare time for the last two weeks on this. I have also helped Ranger Davis in preparing a new map for the Bird Park Shrine.

Routine duties have taken up some of my time: Museum duty on July 5, 6 [p.m.], 13, 15, and 26 [a.m.], and posting of the Naturalist Program and the weekly Observatory Reports on either Tuesdays or Wednesdays.

I had four days off: July 8, 15, 20, and 28.

Since the 12th Ranger Davis, Naturalist Fagerlund, and I have handled the public contact work. Here is a detailed list
of my contacts.

**Lectures**
- **July 14:** Krakatoa; 200 people; response, good
- **21:** Krakatoa; 70 people; good
- **22:** Museum; 80 sailors; poor
- **23:** Museum; 100 people; good
- **26:** Museum; 50 people; good
- **27:** Museum; 14 people; good

**Scheduled Tours**
- **July 6:** Mauna Loa; 1 person; good
- **23:** Park Tour; 31 people; good
- **27:** Mauna Loa; 15 people; good

**Special Tours**
- **July 10:** Park Tour; 6 people; good
- **26:** Park Tour; 80 sailors; poor
- **27:** Park Tour; 52 sailors; poor

**Hikes**
- **July 25:** Kilauea Iki; 2 people; (no HMC transportation available)
- **31:** Short Nature Walk; it was raining and no one appeared

Respectfully submitted,

Willard M. Eller
Seasonal Park Ranger
MONTHLY REPORT
JUNE 1941

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.
MEMORANDUM for the Director:

Following is the Hawaii National Park report for June.

Weather Conditions

June was a month of near normal weather conditions with rainfall showing an appreciable increase over the past several months, which had been subnormal to an alarming degree. At Kilauea total precipitation was 10.62", at Haleakala ranger station 5.09" and at the summit observatory 2.20". On June 30 at Kilauea there was a total rainfall of 5.47" in the 24-hour period. Maximum and minimum temperatures at Kilauea were 75 and 48 degrees; and maximum wind velocity 12 mph on the 13th. At Haleakala summit observatory maximum and minimum temperatures were 68 and 39 degrees; and at the ranger station 77 and 44 degrees.

Special Activities

On June 1 the superintendent made an inspection trip to Kipuka Nene and areas east to the park boundary; on the 8th he went to the Kilauea Fali region to look over depredations by wild goats in that vicinity; and on the 10th to the Kau desert region. On June 19 he attended a meeting of the County of Hawaii Agricultural Advisory Committee in Hilo; and June 28 talked to a group of Army inductees and friends from the Puna district, at Olaa.

Beginning June 5, the superintendent instituted weekly meetings of the division heads to discuss park and other problems that may arise from time to time. Mr. Nick Lycurgus, assistant manager of the Volcano House also attends these meetings. To date several important problems have been solved by time pooling information.

General Publicity

Territorial newspapers gave the blossoming of the silversword plants in the Haleakala section wide publicity, and some articles were accompanied by pictures. One whole program on the Hawaii Tourist Bureau radio broadcast was dedicated to the Haleakala section when Mr. Bert Tarleton of Honolulu was interviewed regarding his trip through Haleakala crater for the purpose of photographing the silversword plants.

At the request of the editor of the Paradise of the Pacific magazine an article was prepared on the volcanoes, for use in the July issue of that publication.
Inspections

On June 11, Lieut. M.C. Burna from the Navy Aerological office at Pearl Harbor made an inspection of the work being done by the Navy men stationed at Haleakala for the purpose of making weather observations and pilot balloon soundings.

New Construction

The Volcano Observatory and Naturalist building (CCC job 54) construction still progresses satisfactorily, with the roof completed with the exception of the fireplace. The building is reported 45% completed.

Work started on the combination garage and laundry room (CCC job 70) for Dr. Jagger’s use. It had been necessary to dismantle the buildings that he had formerly used for these purposes to make room for the new Volcano House. This work is being done by the CCC carpentry class under the direction of Mr. Earle Russell, the carpenter instructor assigned to this camp for the national defense vocational training project.

Improvement of Approaches to Park

The ranger in charge at Haleakala reports that the County of Maui is erecting a new system of signs at all important road junctions and intersections. He also reports that the personnel of that section are donating their time to erect two Tourist Bureau metal markers at the Kula-Haleakala, and Upper-Lower Kula road intersections, pointing the way to Haleakala crater. The County apparently is not putting signs at these places, and the Tourist Bureau has no labor available.

Park Operators

Construction of the Volcano House is still coming along satisfactorily, with the building approximately 50% completed at the end of June. There was a slight delay, however, due to the fact that the shipment of copper pipe from the mainland had been held up. This has now arrived and is being installed.

Lectures, Guide Service, etc.

An invitation was extended to the Commanding Officer and personnel of the Army Air Corps stationed at Morse Field (located at South Point, 30 miles from the park) to visit the park and take advantage of its interpretational activities.

The following special parties were given service in June: 275 officers and men from the USS Nevada and Vesta, 10 local Boy Scouts, 18 Hilo Girl Scouts, and a party of 35 from the 9th grade of the Kohala school.
Exhibit 1

An invitation has been received by the ranger in charge of the Haleakala section to install a park exhibit at the Maui County Fair to be held in October.

Research and Observation

The 1940 cone in Mokuweoweo crater (summit crater of Mauna Loa) continues to fume quite strongly. Sulphate and sulphurous deposits are locally conspicuous on last year’s lavas. Kilauea continues quiet save for occasional slides from the walls of Halemaumau. Several earthquakes were recorded that originated on the northeast slope of Mauna Loa. Tilting of the ground to the southwest continued much later than normal and on June 28 reached a value to the south slightly exceeding that of any time during 1940.

On June 5 and 6 the seismologist’s office was moved to temporary quarters in the new Observatory-Naturalist building. Everything was moved out of the old building except the seismographs.

USC Senior Wildlife Foreman Paul E. Baldwin continued his ecological studies of birds. He reports that the exotic White-eye (Milojiru) has extended its range to as high as 6500 feet elevation in the koa forest. Mr. Baldwin and the park naturalist continued the study on the effects of cattle grazing on koa and other native vegetation.

An earlier estimate by the ranger in charge of the Haleakala section that 1940 or more silversword plants would bloom this season seems now to be a bit conservative as so many more have been discovered, that it would be safe to say that close to 500 plants will probably bloom this season.

Increase or Decrease in Travel

Travel to Kilauea amounted to 25,328 as compared with 25,997 last year. This difference was no doubt due to the fact that 306 Navy men visited the park in June 1940, when several ships called at Hilo harbor. At Haleakala the ranger in charge reports 4050 visitors as compared with 1285 for June 1940. These included a number of Navy men. The display of silversword at Haleakala crater has also brought a great number of visitors to that section.

Visitors

Col. and Mrs. M.C. Muma visited the Volcano House for several days, and were given special attention by the assistant to the superintendent and rangers. Col. Muma is the territorial representative of Sears Roebuck.
Dr. and Mrs. C.H. Edmundson visited the park in June. Dr. Edmundson is head of the University of Hawaii Biology Department.

**Ranger Service**

A small airplane was forced down at Kilauea, on the small emergency landing field, due to a fuel shortage. A new supply was obtained from the Volcano House and the plane took off without difficulty and proceeded on its way to Hilo.

**Wildlife**

Seven Pacific golden plover were seen below Hilina Pali on the 24th and 5 in the same area on the 26th. Three pheasants were seen in the forest at the upper end of Kipuka Keana Biopqa. This is the first time these birds have been seen so low down in the Hilina Pali area.

At Haleakala 13 wild goats were destroyed and 53 at Kilauea.

**Building Fire Protection**

Fire drills were held at the CCC camp and Volcano House. Seventy-five manhours were expended in fire protection training of CCC personnel. The inventory of building fire equipment was completed and the annual report of inspection of fire hazards prepared and submitted.

**Accidents**

On the 24th, 3 Marine Corps aviators were killed when their 3-plane formation crashed into the slopes of Haleakala at the 8000 foot level, below the park boundary.

On the 28th, an enlisted man visiting at Kilauea Military Camp, was slightly injured when his horse stumbled on loose rock and threw him. This accident occurred near the bridle trail on the south side of Kilauea crater. Investigation showed that the trail in this spot was smooth and had the rider kept his horse on the trail in all probability there would have been no accident.

**Civilian Conservation Corps**

During the month 33 boys were enrolled and 8 discharged— including 3 for desertion, 2 for securing outside employment, 2 for expiration of term of service and 1 because his presence was needed at home. The average camp strength was 141 enrollees. Ninety boys participated in the torch-light parade which was held in Hilo the evening of June 9, under the auspices of the Hawaiian Civic Club, as part of the Kamehameha Day celebration. On June 11 (Kamehameha Day) 70 enrollees were taken for a picnic at Punalu'u. This day, which is an important Territorial holiday, was given to the boys and time made up.
On the 14th Flag Day exercises were held at the camp, at which Mr. Roy Finch, volcanologist, was the principal speaker. Assistant to the Superintendent Moomaw also spoke.

Sub-foreman Masao Miyake, who had entered on duty only a few weeks previous, was inducted into the Selective Service on the 28th.

The national defense vocational training classes, being given at the camp under the auspices of the Territorial Department of Public Instruction, are progressing in a very satisfactory manner, and already desired results have been obtained. Classes are conducted in the following: Welding, carpentry and auto mechanics. This last mentioned, auto mechanics, has been changed from part-time to full-time, and the CCC mechanic, Stanley Makamura, who has been conducting this class, has been furloughed for the duration of the defense training course.

B. F. Moomaw, Jr.,
Acting Superintendent
Group inducted into Selective Service, June 28, from Local Board No. 1, Olaa, of which the superintendent is chairman. The superintendent; Mrs. Kathleen Richardson, clerk; and Mr. Gilbert Hay, Asst. Mgr. Olaa Plantation, member; are shown in back row.

Landscaping along Mamalahoa Highway near Volcano House entrance, CCC job.
Bear view Volcano Observatory and Naturalist building, from northeast, showing frame-work nearly complete. CCC job 54.

Combination garage and laundry room near Dr. Jaggar's quarters. Work on this building is being done by the carpentry class under the national defense vocational training program. CCC job 70.
# Travel Report

**Kiluena Section, Hawaii** National Park for the month of June, 1944

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<td>Total persons entering via private transportation</td>
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<th></th>
<th>This Year</th>
<th>Last Year</th>
<th>Increase</th>
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<tbody>
<tr>
<td>Automobiles in public camps during month</td>
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<td></td>
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<tr>
<td>Campers in public camps during month</td>
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</table>

U.S. Government Printing Office 9-2-1944
UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

TRAVEL REPORT

Haleakala Section, Hawaii National Park for the month of June 1941

<table>
<thead>
<tr>
<th></th>
<th>This Month</th>
<th>This Travel Year To Date</th>
<th>This Month</th>
<th>Last Travel Year To Date</th>
<th>Increase or Decrease for Travel Year</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PRIVATE TRANSPORTATION:</strong></td>
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<td>Cars first entry</td>
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<td>Cars reentry</td>
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<td>Total motor vehicles</td>
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<td>251</td>
<td>3073</td>
<td>313 10</td>
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<tr>
<td>Persons entering via motor vehicles</td>
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<tr>
<td>Persons entering via other private transportation</td>
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<tr>
<td>Total persons entering via private transportation</td>
<td>4030*</td>
<td>16930</td>
<td>1255</td>
<td>15365</td>
<td>1565 10</td>
</tr>
</tbody>
</table>
| "* 90 men from U. S. Navy visited the park in 3 trucks and these were added on after the regular 5 persons per car were figured."

| **OTHER TRANSPORTATION:** |                      |            |            |                          |                                     |
| Persons entering via stages |                      |            |            |                          |                                     |
| Persons entering via trains |                      |            |            |                          |                                     |
| Persons entering otherwise |                      |            |            |                          |                                     |
| Total other transportation |                      |            |            |                          |                                     |
| GRAND TOTAL ALL VISITORS | 4030 | 16930 | 1255 | 15365 | 1565 10                  |

<table>
<thead>
<tr>
<th></th>
<th>This Year</th>
<th>Last Year</th>
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<td>Number</td>
<td>Percent</td>
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<tr>
<td>Automobiles in public camps during month</td>
<td>. . .</td>
<td>33</td>
<td>32</td>
</tr>
<tr>
<td>Campers in public camps during month</td>
<td>. . .</td>
<td>33</td>
<td>32</td>
</tr>
</tbody>
</table>
MEMORANDUM FOR THE SUPERINTENDENT, 
THROUGH the Camp Director. 
SUBJECT: Monthly report on bird conservation work for June 1941.

Census

Census counts on established plots at various altitudes in the park indicated movements of Iiwi from higher areas to lower. Extension of the range of the exotic Whiteye (Mejiro) up as high as 5500 ft. elevation in the koa forest was noted.

Two nest censuses in the upper part of the koa forest revealed the following species to be nesting in June and on into July: Iiwi, Apapane, Elepaio, House Finch, Japanese Hill Robin.

A follow-up summer shore bird census at Kaalualu showed the summer population of Kolea (Pacific Golden Plover) to be 2.4 percent as large as the winter population, the summer population of Akekeke (Ruddy Turnstone) to be 50.8 percent as large as the winter population, and the summer population of Ulili (Wandering Tattler) to be practically the same as the winter population.

Life history

Observations on Iiwi, Apapane, and Elepaio nests were systematically carried out. A 6.8-acre area of koa forest habitat, previously type mapped, was mimeographed on notebook paper and used in observations of banded birds and nest censuses. An umbrella blind was constructed with the help of Mr. Nakamura for nest observation. Photographic records were made of developing Iiwi nestlings and of nesting sites. Office work involving transcribing of individual records to file cards and synthesis of results was carried on.
Food habits

An excellent collection of dried Nene (Hawaiian Goose) droppings from 3-trees Kipuka and a small kipuka by the 1881 lava flow at 6500 feet elevation was obtained. Enough specimens are now on hand (about one pint in bulk) that a fairly good study of food habits by means of fecal analysis can now be made. Dropping analysis data cards were requested from the Fish and Wildlife Service for this study.

Information on Iiwi food habits and specimens of insects fed to nestlings were obtained.

Parasites and diseases

Arrangements were made with the Hilo Board of Health to make cultures of the bumblefoot organism found on native birds so that the disease can be studied in the Fish and Wildlife Service laboratory at Bowie, Maryland.

Reconnaissance

Kipuka Pepiau was visited to follow up reports of Nene having been seen there. No evidence of present (or past) occupancy of the kipuka by Nene was found.

The 1881 Lava flow region in the park and Kaalualu were visited in connection with matters discussed above.

Miscellaneous

One day was spent on duties connected with work of the Exotics Committee.

Work on the report for the Director concerning the findings of the study of grazing in the Koa forest was continued. Maps of the study plots and quadrats were made, and final revision of the report on the Koa work was completed.

Public contacts included showing of the new Ulili lantern slides to the Manuiki Audubon Society, giving a talk on marine life and conducting a field trip for the Girl Scouts at their summer camp, and taking two visitors, members of the Honolulu Audubon Society, to a site for photographing the Iiwi and other Hawaiian Birds.

Respectfully submitted,

[signature]
Senior Foreman (Wildlife)
CORRECTION

THE PRECEDING DOCUMENT(S) HAS BEEN REPHOTOGRAPHED TO ASSURE LEGIBILITY
SEE FRAME(S) IMMEDIATELY FOLLOWING
<table>
<thead>
<tr>
<th>Date</th>
<th>Banded Bird- &quot;T-12&quot; etc.</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Unbanded- ♂♀juveniles</td>
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<td></td>
<td>Flight, path of- ♂♀</td>
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<td></td>
<td>Stop-over- ♂♀</td>
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<td>Foraging- ♂♀</td>
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<td>Trilling- ♂♀</td>
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<td>Calling- ♂♀</td>
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<td></td>
<td>Other Sound-OS</td>
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<tr>
<td></td>
<td>Kipuka Kulalio, HNF</td>
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<td></td>
<td>6250 ft., June 141</td>
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<td>App. 50yds. to 2&quot;</td>
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<td>Koa-</td>
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<td>Mamani-</td>
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<tr>
<td></td>
<td>Chia lehua-</td>
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<td>AA-</td>
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### DISTRIBUTION OF WORK ON PROJECTS BY DAYS

<table>
<thead>
<tr>
<th>Date</th>
<th>Census</th>
<th>Life History</th>
<th>Food Habits</th>
<th>Parasites and Diseases</th>
<th>Reconnaissance</th>
<th>Hrs.</th>
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<td>Sat 28</td>
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<td>Sun 29</td>
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</table>
July 7, 1941

MEMORANDUM for the Superintendent

Report of the Hawaiian Volcano Observatory for the month of June

The 1940 cone in Mokuaweoweo continues to fume quite strongly. Sulphate and sulphurous deposits are locally conspicuous on last years lavas. Kilauea continues quiet save for occasional slides from the walls of Halemaumau. Several earthquakes were recorded that originated on the northeast slope of Mauna Loa.

Tilting to the southeast continued much later than normal and on June 10 reached a value to the south slightly exceeding that of any time during 1940.

The following table shows some of the quantitative data obtained during June:

<table>
<thead>
<tr>
<th>Week ended</th>
<th>Tilt</th>
<th>Crack movement</th>
<th>Seismic disturbances</th>
<th>Seismicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>June 1</td>
<td>Mod. NW</td>
<td>2.5 opening</td>
<td>14</td>
<td>9.25</td>
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<tr>
<td>8</td>
<td>Mod. SW</td>
<td>0.5 &quot;</td>
<td>15</td>
<td>4.60</td>
</tr>
<tr>
<td>15</td>
<td>Mod. W</td>
<td>0.0</td>
<td>4</td>
<td>1.60</td>
</tr>
<tr>
<td>22</td>
<td>Slight NE</td>
<td>4.0 opening</td>
<td>11</td>
<td>3.00</td>
</tr>
<tr>
<td>29</td>
<td>&quot; NE</td>
<td>0.5 closing</td>
<td>10</td>
<td>5.25</td>
</tr>
</tbody>
</table>

Work of R H Finch

On June 5 and 6th the seismologists office was moved to temporary quarters in the new Observatory-Naturalist building. Everything was moved out of the old building except the seismographs. A paper on Ground Tilt at Kilauea Volcano by H. H. Waesche was read critically. Some parts were rewritten and then typed. The Bosch-Borgseismographs were overhauled. One component was reoriented and its pier strengthened. It was found that ground tilt had exhausted the range of adjustment of the N-S component. Occasional trips were made to the community and C C C gardens.

Work of P. E. Schulz

Among the monthly duties that occupied Mr. Schulz's time during June were measurement of temperatures and width of cracks at several places along the Chain of Craters Road and measurement of Kilauea Crater angles. He compiled the weekly-press reports, measured rim cracks at Halemaumau, and compiled tilt and seismicity, weekly. Measurement of seismograms occupied a large part of each day. Among the miscellaneous duties was the moving from old office and setting up temporarily in the new building.
on June 5-6. From June 20 to 25 a part of each day was spent on overhauling the north-south component of the Bosch-Omori seismograph and strengthening its pier.

Work of B. J. Loucks

The routine changing of seismographs takes up a large part of the time of Mr. Loucks. The distribution of his time not taken up by daily routine was about as follows:

June 6-19 Cleaning and overhauling shop tools 36 ½ hours
20-26 Reorienting E-W component of Bosch Omori seismograph and repairing pier 22 "
29 Making new T-bars for seismographs 5 "
30 Checking seismographs 3½ "

R. H. Finch
Volcanologist
MEMORANDUM for the Superintendent.

The following is the Chief Ranger’s report of the activities of the ranger division for the month of June.

All of our work has been confined to normal routine and no outstanding event is listed.

Weather Conditions. Rainfall for the month was 10.62 inches which is somewhat more than the 9.19 inches for May. A fall of 5.47 inches occurred on the 30th. This was the greatest amount in any twenty-four hour period and the entire storm provided a total of about 7.00 inches. Rainfall for the period January 1 to date is 33.24 inches, compared with a normal fall of 49.87 inches, which gives us a deficiency of 16.33 inches.

Maintenance. Routine maintenance of the telephone system, traffic counters, trails, and signs was carried out during the month. The growth of tall grass was removed from the picnic grounds as a fire protection measure.

Lecture and Guide Service. The following public contacts were made by members of the ranger division:

- 14 park tours for 335 persons.
- 5 hikes for 74 persons.
- 3 showings of Krakatoa for 311 persons.

Increase in Travel. Travel figures for the month show an increase of 1061 persons over those for May. This is classed as a normal seasonal fluctuation.

Visitors. No visitors of note were contacted during the month. Special visitor groups included 275 officers and men from the USS Medusa and Vestal who visited the park on the 1st.
Ranger Service. Routine night patrol, flag duty, museum, and switchboard assignments were carried out. Patrol trips were made to the summit of Mauna Loa, to Kapeau Crater, Pan Koa, and the seacoast areas of Apua, Kahue, and Keau.

Five days were spent in the Hilina Pali area on goat drives with a total of 14 man-days expended. Ninety three goats were destroyed.

Two reprimands were given for the violation of park regulations by visitors. One was for speeding and one for breaking shrubs while picking berries.

Assistance was given to one motorist during the month. One airplane landed on the emergency field located on the floor of Kilauea South of Halemaumau on the 24th. This was an emergency landing due to a fuel shortage. A new supply was obtained from the Volcano House and the plane took off without difficulty and proceeded on its way to Hilo.

A case of improper conduct involving a soldier visiting at Uwekahuna was investigated and a separate report has been submitted.

Routine inspection of the powder and cap storage houses was carried out as ordered.

One meeting of the Roads, Trails, and Signs committee, and the Safety Committee were attended during the month.

Wildlife. Seven plover were seen below Hilina Pali on the 24th. and 5 in the same area on the 26th. Three pheasants were seen in the forest at the upper end of Hapu'a Keau, Bihopa. This is the first time these birds have been seen so low down in the Hilina Pali area.

Forest Fire Protection. An inventory of forest protection equipment was made during the month, preparatory to submitting the annual statistical report of this equipment.
Building Fire Protection. Fire drills were held at the CCC Camp and Volcano House during the month. Seventy-five man-hours were expended in fire protection training of CCC personnel. The inventory of building fire equipment was completed. The annual report of the inspection of fire hazards was prepared and submitted.

Miscellaneous. The inventory of museum and educational equipment is at a standstill as it is almost impossible to complete this due to the fact that so much Observatory equipment cannot be checked at this time due to crowded storage facilities. The same problem exists with the library and it is recommended that the completion of this work be delayed until all of the equipment can be segregated and placed in the new building.

I am very much in favor of continuing the regular Tuesday meetings of division heads. This is helping to provide better cooperation among members of the various divisions and should give all of us a better understanding of park problems. The circulation of your monthly report among the staff members is a very good idea and should be continued. I feel that it will provide all of the staff members with a better idea of park problems and activities.

Joseph H. Christ,
Chief Ranger.
Memorandum to Superintendent Edward G. Wingate through office of Chief Ranger J. H. Christ.

Enclosed are monthly reports, travel and narrative; information for FFU-1, and Ranger Station and Pakaono Observatory 1005-Met'1. reports.

Frank A. Hjort
Acting Ranger in Charge
Memorandum to Superintendent Edward G. Wingate
through office of Chief Ranger J. H. Christ.

The following narrative report of the Haleakala Section for the
month of June, 1941 is respectfully submitted:

General

Introduction

This month marked the discovery of more and more silversword plants
that are blooming. One trip through the crater showed 48 plants that
were about to bloom or that were blooming and all were seen from the
regular trails.

The end of the long drought seemed at hand with two good rains recorded
this month. The first rain in 6 months fell at Kapalaoa Cabin in the Crater.

Traffic was well above normal this month and was undoubtedly caused
by the blooming of the silversword plants and the publicity they
received.

General weather conditions

At Palaoao Observatory the maximum for the month was 65 with a minimum
of 38 being recorded. Winds were entirely trades from the east and a few
points to the north and south of east. Rain fell on three days to total
2.30 inches. There were 25 clear, 4 partly cloudy, and 1 cloudy days
this month.

At the Ranger Station the maximum was 77 and the minimum was 44 degrees.
Winds were from the East during the night with East and South west winds
during the daytime. Rain fell on 5 days to total 5.09 inches. There
were 18 clear, 8 partly cloudy, and 4 cloudy days this month.

Administration

Park inspections by

Other governmental officers

On June 11, Lieutenant M. C. Burns from the Aerological Office at Pearl
Harbor made an inspection of the work being done by his men on duty here
taking weather observations and pilot balloon soundings.

General Publicity
180 General publicity

Considerable newspaper publicity was given the blooming of the silver-swords. Besides the regular bulletins issued by the Park there appeared in the Maui News an article and a photograph by Bert Tarleton of his trip in to see and "shoot" the blooming plants.

One whole program on the Hawaii Tourist Bureau radio broadcast was dedicated to Haleakalā Section of the Park when Bert Tarleton was interviewed on his recent trip into the crater.

200 Maintenance, Improvements and New Construction

220 Improvements.

Two new signs were installed this month at the entrance to the Park and on the road leaving the parking space at the summit. Their purpose is to warn motorists to use their light in foggy weather. It is hoped that they will help prevent accidents. Two signs were also placed one at each trail entering the crater warning persons desiring to use the crater rest houses that they must have permission to do so from the proper authority. One sign was erected at the silversword trail pointing the way to the plants. Many Maui residents have expressed their thanks for this sign as it has enabled many people unable to make the trip into the crater to be able to see the silversword. One plant is blooming along the trail marked by this sign. Nearly every summit visitor has seen it.

250 Improvement of nearby highways.

A new system of signs is being erected by the county at all important junctions and intersections which are a boone to tourists and other visitors not acquainted with the island roads. Many of the signs point up this way with "Haleakalā" on them.

An inquiry was made concerning two Tourist Bureau warrior type signs to be erected at the Kula -- Haleakalā intersection and at the upper Kula -- lower Kula intersections. These signs are to point the way to Haleakalā as the county is evidently not going to erect signs at these points. We were informed by the Tourist Bureau that the signs are here on Maui but that no labor was available to erect them so we of this section of the Park are going to donate some time in the near future and see to it that the signs get a proper displaying.

300 Activities of other agencies in the park

310 Public Service contractors

311 Character of Service rendered to the Public

No service has been rendered the public this month by the Maui Grand Hotel.
400 Flora, fauna and natural phenomena

440 Insect control

Insects infesting the buds of the silversword were noted in many planes. A little thought on the subject along with a check on what these insects are eating of the plant has proven that they have no effect on the seeds to be borne by the plant and therefore are not hindering reproduction in any way. The silversword is seemingly on the increase in a great way.

490 Silverswords

An earlier estimate that a hundred or more plants are to bloom this season seems now to be a bit conservative as so many more have been discovered that it would be safe to say that close to five hundred will probably bloom. All of the larger patches with several thousand silversword in them have many plants in bloom or about to bloom, and all around the rim of the crater plants are seen to be preparing to bloom.

500 Use of park facilities by the public

510 Increase in travel

Travel increased this month to over three times the amount of this month last year. This brought up the travel year to a paying basis with a 10% increase.

550 Conditions affecting travel

As mentioned before the increase in travel is due mostly to the fact that the silverswords are in bloom and have been given good publicity. Travel from outside the Islands fell off so it must be the local people who are causing the increase. It was very fortunate that there was only one day on which people could not see the crater because of bad weather this month.

600 Protection

Destruction of predatory animals (640)

8 billies and 5 nannies were destroyed this month making a total of 13 goats. 1 wild dog was also shot in the crater.
Information for FWL-1

Visitors:
From out of Territory--------194
From the Territory----------3836

Campers----------------------33 (Spent 44 nights in rest houses)
Sightseers------------------3997

4030
MEMORANDUM for the Superintendent, through the Chief Ranger:

The foregoing is my report of ranger activities for the month of June, 1941:

Public contacts were as follows:
June 1, 1941, Tour for USS Medusa and Vestal, 69 persons (2 of 275) for 3½ hours.
June 7, 1941, Inter-Island Tour, 8 persons for 1½ hours.
June 8, 1941, Mauna Loa Tour, 4 persons for 2½ hours.
June 11, 1941, EMS Tour, 59 persons for 2½ hours.
June 16, 1941, Bird Park Hike, 18 persons for 1½ hours.
June 25, 1941, Mauna Loa Tour, 1 persons for 2½ hours. (Chaos esimograph).

Miscellaneous duties other than routine, were as follows:
June 3, attended meeting of the Roads & Trails Committee.
June 6-10, looked after exotic removal along park roads.
June 8, began supervision of exotic removal in Bird Park. This work was continued throughout the month. Six to eight CCC boys are doing this.
June 17 and 24, attended Division-Head meetings for the Chief Ranger.
June 10-18, looked after the maintenance of the planted trees in Bird Park and the old horse corral area.
June 18, checked Ainahou corral via Kipuka Nene on foot. Killed three goats.
June 19, mounted search for the park horses in the Mauna Loa sect.
June 19-23, looked after the cutting of grass and cleanup of fire hazards around the several picnic ground buildings.
June 23, removed 1,000 feet of koa-corral in the Six Tanks area with CCC labor.
June 27, Drive Hunting goats on horseback at Reposo with Mr. Medeiros. Killed 11 goats; three of which were removed alive.
June 28, Drive-Hunting goats on horseback in Kipuka Nena-Moale region with nine others. Killed six goats plus two that went through the boundary fence.
Wildlife observations and duties were as follows:
June 7, attended the regular meeting of the Manuiki Society.
June 12, Patrol of fence at Half Way House on foot.
June 26, Saw a large puaa along the Kiluaea Rim Road near the Out-Off Road. Time, 7:15 a.m.
June 27, Saw extensive pig rooting in the Pepepea region.
June 28, Saw a flock of 5 koles on the flat west of Puu Koaee... They were in dark summer plumage and appeared to be mature birds. Time 4:15 p.m.

Native tree-nursery work included the following:
Seeds planted; ½ flat peuua keokeo. ½ flat silane (native).
Few seeds of smooth-leaved Cyrtandra from Napeu.
Few seeds alani. 1/3 flat kaile.
1/3 flat cali.
1/6 flat saven huua kukui. 1/6 flat puu-hana-u.
24 seeds alani (large type from Puuwaawaa.)
21 seeds alani (small type from Puuwaawaa.)
100 seeds walei.
24 seeds dienella.
Few olomea seeds. 1/6 flat mauu-lali.
3 seeds kakea (from Puna seacoast).
1 flat obie (smooth-leaved type.)
1 flat muela.
1 flat akala (seed-of the red type from Bird Park).
1 flat kou (seed from Oahu).

Seedlings transplanted; 40 kopiko.
Plants sent out and planted; 30 maneni and 5 koa.
Seeds collected; red and yellow akala, kopiko, halapapa (discovered growing in Kipuka Nene section of the park), portulacca (native, from Kipuka Ki).
Cuttings collected and planted; 31 ouhe, 33 olomea, 5 halapapa,
20 milo (seedlings from Keau), 21 noa, (seedlings from Keau),
16 portulacca and 9 yellow skala from Six Tanks area.

Gunder E. Olson,
Part Ranger.
UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
HAWAII NATIONAL PARK
HAWAII

July 1, 1941.

MEMORANDUM for the Superintendent through the Chief Ranger.

Subject: Narrative report for June.

Public contact work for the month consisted of 4 park tours for 123 persons and one hike for 8 persons. A field trip for our local Scout troop was conducted for the purpose of giving merit badge instruction in bird study and forestry. I accompanied our local troop on a three day outing at Pohakuli Scout Camp from the 13th. to the 15th. Ten members of the troop participated.

Routine inspection of building construction work was made. Routine maintenance of telephone instruments and traffic counters was carried out.

Engineering work for the month consisted of the following: Grades for the road and construction lines for the garage to be constructed for Dr. Jaggar were established. Grades and curb lines for the office parking area were set. Completion of the rock wall and plate lines for the observatory and naturalist building was accomplished during the period. Preliminary surveys for the installation of the 6 inch collection from the new Volcano House to the present Park storage reservoir, and the 6 inch supply and pumping line from the Volcano House rain shed to the Park reservoir were completed. Profiles were prepared and the various hydraulic grade lines were computed. These were turned over to Mr. Hewitt for the preparation of the necessary drawings. Transit readings from Uwekahuna triangulation station were completed for the location of the Mauna Loa test plots established by Messrs. Fagerlund and Baldwin. The necessary computations were made and the information given to Mr. Baldwin for preparation of the necessary drawings. A suitable re-inforced concrete slab to be used as a cover for the Volcano House cesspool was designed. It will be necessary to abandon the previous design if the proposed change in the location of the Volcano House garage is approved. This new location will
place the service court over the cesspool site and it will be necessary to construct a slab cover capable of carrying heavy truck loads. Grades were established for the sewer installation at the new Volcano House.

Two days were spent on goat drives in the Hilina Pali area. I assisted the Chief Ranger in the investigation of a case of improper conduct at Uwelahuna on the 9th. An inventory of our fire protection equipment was made and the necessary reports are being prepared.

Routine flag, switchboard, and patrol duties were carried out.

Arthur L. Jess
Park Ranger.
UNITED STATES  
DEPARTMENT OF THE INTERIOR  
NATIONAL PARK SERVICE  
HAWAII NATIONAL PARK  
HAWAII  
July 1st, 1941

Memorandum to the Superintendent through the office of the Chief Ranger

Subject: Narrative report for June, 1941

Routine Duties
My activities for the month included regular assignments at Museum Duty, Patrol, Night Check, Flag Duty, and Switchboard.

Misc. Duties
Telephone and telephone line repairs, working in the dark room developing pictures, building goat corral fence, brushing out and repairing trails, painting miscellaneous signs, rounding up horses in Six Tanks area, hunting goats, drafting maps, etc.

Contacts

| June 8 | Bird Park Hike | - | - | 1 car | 6 people | 1.5 hrs |
| 6 | Mauna Iki Hike | - | - | - | - | - |
| 9 | I.C. "Truckton" | - | - | - | - | - |
| 14 | L.I. Tour | - | - | - | - | - |
| 15 | Mauna Loa Tour | - | - | - | - | - |
| 16 | E.M.C. "Truckton" | - | - | - | - | - |
| 18 | E.M.C. Tour | - | - | - | - | - |
| 18 | E.M.C. "" and Lecture at Museum | - | - | - | - | - |
| 20 | Pit Craters & Mauna Iki Hike (asst.) | 4 | - | - | 21 | 4 |
| 21 | I.I. Tour | - | - | - | - | - |
| 30 | E.M.C. "Truckton" | - | - | - | - | - |

Respectfully submitted

Charles W. Miller  
Ranger
MONTHLY REPORT OF ACTING CAMP DIRECTOR, HERBERT R. HENNE TO PARK SUPERINTENDENT
EDWARD G. WINGATE FOR THE MONTH OF JUNE, 1941.

During the month we enrolled 33 boys, and discharged 8; of which 3 were for Desertion, 2 for Securing Employment, 2 for Expiration Term of Service, and 1, Presence Needed at Home. We averaged 141 enrollees as our Camp Strength for the entire month. I believe that we have reached the ceiling in the obtaining of any more for the Camp, due to various activities, but nevertheless with our present enrollment, we have been able to really progress on the various projects.

Ninety (90) enrollees participated in the Torch-Light Parade which was held in Hilo on June 9, under the auspices of the Hawaiian Civic Club. The boys made a very excellent showing, and I am more than pleased with the favorable comments received from various sources.

On June 11, seventy (70) enrollees were taken for a picnic at Punalu'u.

There was a Flag Day Exercise held on the morning of June 14. Mr. Ray Finch was the principal speaker. Mr. Benjamin F. Moomaw, also spoke to the boys.

Dr. Phillips went on leave for fifteen (15) days, and left Dr. Chang as his substitute.

John Makainoku, Foreman, went on leave from the 22nd of June, to return to duty on July 7.

Foreman Masao Miyaka was inducted into the Selective Service on June 28, leaving this position vacant. Three applications for the position of Mason Foreman have been forwarded to Mr. Pesonen for his concurrence in a suitable applicant.

A telegram was received, allotting $2300.00 for Camp Repairs. We have obligated all of this money in the necessary repairs and maintenance in the Camp, and will be prosecuted in a short time.

There were twelve (12) mandays lost from the project, due to sickness, etc. One Thousand Nine Hundred Three (1903) mandays were utilized on
Monthly Report—Park Superintendent

July 1, 1941

the various projects.

The general condition in regard to morale, etc., is continuing very satisfactorily.

There were two Safety Meetings for the month of June, putting stress on the method of handling tools. We are having a younger group of boys in Camp, and it is felt that too much stress cannot be put on the proper method of safe tool handling.

JOB REPORT

Job 54: Observatory And Naturalist's Building.

The rock wall foundation on this job is now completed, leaving only the Fireplace, which will be completed very shortly. The shingling is progressing very satisfactorily, and it is expected that within a month, the entire roof will be completed. The various leaks that came in through the windows and basement ceiling have been filled up so that the basement is practically watertight.

Job 64: Parking Area.

The Parking Area in front of the Administration building have been roughed out, and rolled, and is being left until such time as it is known just what is to be done in regard to the whole area. Considering that a new idea has been developed for this area work is being more or less suspended.

Job 74: Cesspool, Volcano House.

One Cesspool was completed, and the rock wall started on the other.

Job 72: Landscape Development.

The Landscape crew is progressing very satisfactorily in the soil preparation and planting for this job.

Job 70: Construction of Combination Garage And Laundry Room.

Mr. Russell, our Carpenter Instructor is in charge of the construction of Dr. Jagger’s Garage, and is progressing very satisfactorily.

Various other mandays were used in the continuation of smaller projects, such as the operation of the Incinerator, Educational Guide, and Contact, etc.
Monthly Report--Park Superintendent

July 1, 1941

VOCATIONAL TRAINING FOR DEFENSE PROGRAM

The Vocational Training classes progressed very satisfactorily during the month, and already, the desired results have been obtained in the following classes:

WELDING:

Of fifteen (15) boys who started this course in April, seven (7) are taking their examinations so that they may be able to be placed in positions at Pearl Harbor.

CARPENTRY:

Mr. Russell, our Carpenter Instructor, has really been doing excellent work of training; the results of which are very noticeable, on the Observatory job, plus his own job of building Dr. Jagger's Garage. The procedure in this respect is by him to take six (6) or seven (7) boys for a week at a time; in this way, all of our boys who have to do carpenter work can benefit under his guidance at one time or other.

AUTO MECHANIC:

Our Auto Mechanic class has been changed from part-time to full-time course. In this respect it was necessary to furlough the CCC mechanic, Nakamura for the duration of our defense training course. Approval for this action has been requested of the Director, but to date, confirmation has not been received.

Respectfully submitted,

Herbert R. Rennie
Acting Camp Director, CCCNP
Memorandum for the Superintendent:

Subject: Foreman's monthly report for month of June, 1941

Routine maintenance work was carried out during month.
One trip to the summit of Mauna Loa on and inspection trip in company of Chief Ranger Christ. Two trip to the sea coast area on goat drives.

Very little construction work was done due to the shortage of laborers. William Elderts, Jr. was on leave all during month leaving only one laborer. Several road estimates were submitted, and one building estimate on Qtrs. 96.

Respectfully submitted,

Herbert J. Quick
Foreman of Quna. & Maintenance
UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
NATIONAL PARK

FILE NO.

MONTHLY REPORT
MAY 1941

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.
MEMORANDUM for the Director:

Following is our report for May, 1941:

Introduction

Except for the second territory-wide blackout on the evening of May 20 and various matters related to national defense, little of especial interest, not already separately reported, occurred during the month.

In connection with the blackout the local committee for the Volcano District decided to test the mobilization plan of the Emergency Police Guard unit, to have prepared in residences and government buildings special coverings which would permit use of lights in the buildings, to inspect the efficiency of these preparations and those installed on patrol cars, fire trucks, etc., and cover the entire inhabited and traveled portion of the park and vicinity to inspect the general efficiency of the blackout. Excellent cooperation was received and the various tests proved of value and weaknesses disclosed are being remedied.

The title of the staff committee on Food Production appointed in March was changed to "Superintendent's Advisory Committee on National Defense" and its duties broadened to cover review and recommendation on all matters pertaining to national defense in which this park is concerned directly or in cooperation with the community. Orders to curtail official purchases of aluminum and copper products were in preparation at the end of the month, and earlier recommendations made to householders that they use substitutes for aluminum in their purchases.

For some time several of the park women have been actively using their spare time knitting garments for the Hilo Red Cross chapter.

The month was notable in that it saw the passing of the last radio aerial poles in the park area. A satisfactory concealed aerial was developed by Foreman Quick and after some years of discussion and experiment we were at last able to make that much needed landscape improvement.
Weather Conditions

Total rainfall at Kilauea in May was 9.19", which is a considerable increase, when compared with the total of 2.19" for April. Maximum wind velocity was 20 mph on the 16; and maximum and minimum temperatures were 73 and 47 degrees respectively. At Haleakala the ranger in charge reports maximum and minimum temperatures of 77 and 39 degrees at the ranger station, with a total rainfall of 2.93" and at the observation station 0.14" precipitation and maximum and minimum temperatures of 65 and 33 degrees.

Special Activities

The superintendent returned from Honolulu May 3, where he had been for about 3 weeks on annual leave. On the 5th he went to Hilo to meet and confer with Mr. John Courtney, Special Assistant US Attorney, later taking him to the park. A luncheon meeting of the YMC Board of Directors was attended at Hilo on the 10th; on the 12th inspection trip was made to Kalapana; a luncheon of the Executive Committee of the Hawaii Island Boy Scouts was attended on the 20th. On the 17th he made a short address to the CCC enrollees in connection with "I am Proud to be an American Day." On the 18th, he escorted Field Supervisor and Mrs. E.A. Pesonen and party through the Chain-of-Craters and Hina Pali region and on the 19th he took Mr. and Mrs. Charles R. Frazier of the Honolulu Tourist Bureau and President of the Hui O Pele to Kalapana. Considerable time was devoted to preparations for the territorial blackout, of which the superintendent was the chairman for the Volcano district; and meetings of Selective Service Local Board Number 1, Olaa were attended on an average of once a week.

Assistant to the Superintendent Myosaw attended regular meetings of the Hawaii Traffic Safety Commission in Hilo, of which he is a member, and the Kilauea Council of the Boy Scouts.

Volcanologist Ray Finch, Chief Clerk Higashida and CCC Clerk Kenneth Kim went to Maui on the 7th for the combined purpose of installing a seismograph at the Haleakula section; and attending to clearing up last details in connection with the abandonment of the CCC sub-camp at Kilauea. Mr. Kim returned to Kilauea on the 10th; while Messrs. Finch and Higashida returned on the 21st.

Inspections

CCC Field Supervisor E.A. Pesonen inspected the CCC camp between May 16 and 20.

On May 9, Mr. John Courtney, Special Assistant US Attorney of Honolulu, visited the park for the purpose of discussing the matter of determination of damages sustained by the government in the Kapapala Ranch matter. He was taken over most of the ground by the superintendent and Messrs. Fagerlund and Baldwin.
Status of Private Lands

On May 17 Governor Poindexter signed the joint resolution adopted by the territorial legislature to acquire the lands of Kalalakomo in the Kalapana addition for addition to the national park. This acquisition constitutes 42.89.4 acres. It was previously thought that the governor had signed another resolution, which called for the acquisition by exchange of the private lands in the entire authorized Kalapana addition, but this bill was killed when placed on file April 30 - the last day of the legislative session.

General Publicity

Considerable newspaper publicity was given the tentative opening date of the new Volcano House (September 15); Dr. Howard A. Powers' promotion from ranger in charge of the Kilauea section to assistant geologist; continuation of horseback trips to the summit of Mauna Loa; the installation of a heating system at the new Volcano House which proposes the utilization of steam from nearby steam cracks; and the death of former Director Arm B. Cammerer. In connection with this last, a very fine editorial appeared in the Honolulu Star-Bulletin on May 30.

New Construction

Construction work by the CCC progressed satisfactorily considering the low company strength. The most noticeable advancement was noted in the stone-work of the Volcano Observatory and Naturalist Building after the employment of an experienced mason as foreman. It is expected that all the stone foundation work will be completed by June 15. Carpenter work has also shown a marked degree of progress since the arrival of Mr. Earl Russell, instructor in carpentry at the CCC camp, hired under an appropriation made available by the Territorial Department of Public Instruction for the purpose of national defense project training. Remodeling of the parking area in front of the administration building was commenced (CCC Job 65) and was reported as 45% complete at the end of the month. The Volcano Observatory was reported as 49% complete; and more than half the property and records have been moved from the old building to the basement of the new building.

Improvement of Approaches to the Park

Work on grading the 3-2/3 miles of the main round-the-island road between Papakom and Pepekeko started the first part of the month.

Park Operators

Work still progresses satisfactorily on construction of the new Volcano House. Considerable interest has been aroused over the experimental water heating system which was installed for the hotel operator. This utilizes natural steam which issues from the vents located at the rear of the present cottages. The steam has a temperature of 118 degrees and in
passing it through a system of copper pipes the water used for showers and washing purposes is heated to this temperature. This appears to be a practical installation and should furnish a dependable supply of hot water.

The park operator at the Haleakala section has been experiencing extreme difficulty in finding an attendant and may have to discontinue the services at the Haleakala observation station.

Cooperating Governmental Agencies

The aerological office of the Navy at Pearl Harbor has taken over the telephone at the Haleakala observation station, formerly paid for by the COO, in order that weather observations may be continued to be telephoned without interruption.

Cooperating non-Governmental Agencies

Hu O Pele, an organization of those persons who have visited the volcano, was re-organized in May; with the following officers: Charles R. Fraizer, President; Mrs. Charles Wilder, first Vice-President; L.W. deVla-Morton, second Vice-President; George Armitage, Secretary; and Mrs. Robert E. White, Treasurer. This organization had been under the sponsorship of the Honolulu Outdoor Circle. The proceeds derived from the sale of membership certificates and identification buttons ($1.00) are used for the construction of public buildings, etc., in the Kiliman-Jama-Loa section of the park.

The Maui County traffic code has been changed to include the limitation of speed on the road from the upper Kula road to the park boundary, at the Haleakala section to 30 miles per hour, to coincide with the park speed limit. The speed according to law was formerly 50 miles per hour on this road, which was entirely too fast for a crooked single width road. This agreement was reached as a result of a suggestion by Ranger Frank Hjort, in charge of the Haleakala section, to the Board of Supervisors.

Lectures, Guide Service and Interpretive Contacts

There were 21 park tours conducted by the ranger and naturalist divisions; including groups of school children, personnel from Navy ships calling at Hilo; and island organizations. On the 28th Ranger Olson gave illustrated talks to two groups of students, totaling 360, at the Hilo High School, on Hawaiian Birds and Hawaiian Plants.

Museum activities and Exhibits

Painting and lettering the relief model of the Island of Hawaii was completed and it is now on exhibit at Uwekahuna museum.
Research and Observation

There are a number of silverword in bloom in Haleakala crater at the present time, with an additional estimated hundred that will bloom in a short time. Evidently the extremely dry weather has caused the early blossoming of these plants. One blossom at Puna Mala was found to be 6 feet tall.

Life cycle observations were continued by COG Senior Wildlife Foreman Paul Baldwin on band-tailed birds, with most of the time on this project being spent on field notes, and transcribing records into permanent form; preparatory to putting the information into coherent life history accounts. Lice were collected for the first time from the ʻAmakihī and sent to Dr. cope of Stanford University for identification.

At Haleakalā landslides were frequent during the first half of May. There was pronounced southerly tilting of the ground for the month as a whole, though by the last few days a northerly trend had set in. It appears that many of the Kiluaea earthquakes occur at origins deeper than was common at times when molten lava was present as some of the feeble Kiluaea quakes are reported as just perceptible in Hilo. There were 83 seismic disturbances recorded during the month.

Increase or Decrease in Travel

Total travel to Kiluaea was 24,267 as compared with 25,283 for May, 1940; and at Haleakalā the report shows 1,320 as compared with 1,250 for last year at this time.

Visitors

Mr. Lloyd E. Wilson of San Francisco, Grand Master of Masons in the Jurisdiction of California, was an over-night guest at the Volcano House May 25. He was accompanied by a group of Hilo Masons. A dinner in Mr. Wilson's honor was held at the Volcano House the evening of May 25.

Other visitors included: Dr. Blanckenhorn, Professor of Medicine, University of Cincinnati; Mr. Frank O. Atkinson, President of Castle & Cook, Honolulu; Mr. Stanley O. Kennedy, President of the Inter-Island Steam Navigation Company and Inter-Island Airways; Miss Helen Poindexter and party, daughter of the Governor of the Territory, who were given special attention; and Mr. and Mrs. Charles R. Frazier, well-known businessmen of Honolulu; and the new president of the Hil O Pea.

Police Protection

On the night of May 2, a Major James E. Hess of the 35th Infantry, a visitor at Kilauea Military Camp, created a disturbance at the Volcano House while drunk, and was turned over to the camp authorities by one of the rangers. The next morning the acting commanding officer of the camp presented apologies on Major Hess' behalf to all concerned. On May 22, a Major Newall of the Inspector General's Office of the Hawaiian Department,
arrived to gather further information of the affair as Major General Short's representative, prior to preferring charges against Major Rees for a general court martial. The investigation had been requested by the authorities at the Kilauea Military Camp.

Building Fire Protection

Fire drills were held at the Volcano House and OCO camp. The park's Pacific fire pump was mounted on a Chevrolet truck recently transferred from the OCO, and is a vast improvement over the old Ford Model A station wagon that had been in use for years.

Accidents

One accident involving two OCO trucks and which was the result of pure carelessness and horseplay on the part of the drivers, occurred in May. Fortunately there were no injuries though damages amounted to around $200.

Civilian Conservation Corps

On May 13 the Haleakula stub-camp was abandoned and the foreman in charge, Samuel Milne with 24 enrolles, returned to Kilauea, and since that time 5 of these enrolles have deserted because of homesickness. Mr. Milne is acting as project superintendent during the time Mr. Kimmie is acting as camp director.

The 5 enrolles are being carried A.W.O.L.

The first-aid class started by Camp Surgeon Phillips for leaders, assistant leaders, and prospective leaders, has proven very satisfactory.

During the month 12 boys were enrolled and 34 discharged; of which 12 were for expiration of term of service, 1 for being under-age; 1 for medical reasons; 9 for absences; and 18 for securing outside employment. These 18 were part of a group selected by a representative of the Honolulu Employment office for work on various defense jobs in Honolulu. He was allowed to pick the boys he needed; as we believe this type of cooperation with the Employment Service will prevent the boys from getting off on their own time to look for work. Since the representative's visit not one boy has gone off on his own to hunt for work.

Thirty one Mondays were lost due to sickness, etc. There was a daily average of 143 enrolles in camp, of which 96 were released to the project superintendent.

Predatory Animal Control

Seven wild pigs and 17 wild goats were destroyed in the Kilauea section and 22 wild goats at Haleakula.
Miscellaneous

Dr. Edward A. Powers, who had been in charge of the Haleakula section, was promoted from ranger to assistant geologist, vice Hugh H. Massie, who was transferred to Grand Canyon. It will probably be another year before Dr. Powers enters on duty in his position, as he received notification to report to the Army for active service before the appointment was approved.

Edward G. Wingate
Superintendent
Small, decaying Loa grove, slope of Mauna Loa (4300 ft.) that was grazed by cattle until October 5, 1940. Since this date reproduction is evident here. Compare with next picture of an adjacent similar grove that was fenced in 1936, a corner of which shows in left center of picture.
Reproduction in a decadent Koa grove that was fenced against cattle in 1939, 4300' sl. on slope of Mauna Loa. This is the grove, corner of which, shows in previous picture.
Fire truck, partially completed, showing 250 gal. tank, 1 suction hose valve, and hose rack along side. This truck was an old CCC stake truck transferred to the park.

National Defense Acetylene Welding Class, 000, under instruction of Park Foreman H.J. Quick.
Community vegetable garden, located in abandoned section of Volcano House gardens.

Relief model, Island of Hawaii, with recent lava flows, roads, trails, place names, etc., indicated and captioned by Eugen Paul E. Schulte.
Summit of Haleakala: These 2 pictures show cars and visitors at the parking area and observation station on the rim of Haleakala crater.
Volcano Observatory & Naturalist Building (1003 Job 54), rear view looking east, May 31, 1941.

Volcano House construction - view from crater side looking southeast, May 31, 1941.
MEMORANDUM for the Superintendent:

Monthly report, May 1941

Special Activities:

The month passed with the attendance of the usual meetings in Hilo such as the Hawaii Traffic Safety Commission and the Kilauea Council, Boy Scouts of America.

Some of the annual efficiency ratings were prepared or reviewed by the writer, which in the light of last year's experience was a much easier job this year.

Preliminary forest protection and fire prevention estimates were completed and mailed from the office on the 26th.

The last week of the month was spent on annual leave.

Corrected master plan was expressed to Region IV on May 1.

New Construction

The construction work by the CCC progressed satisfactorily considering the low company strength. The most noticeable advancement was noted in the stone work of the Volcano Observatory and Naturalist Building after the new stone mason foreman entered on duty. During the first 10 work days one hundred forty feet of foundation wall were completed and by June 15 all of this foundation work should be finished except for painting the joints.

Police Protection

On the night of May 2 Major James E. Rees of the 35th Infantry created a disturbance at the Volcano House while drunk. He was turned over to the Kilauea Military Camp authorities by Ranger Jess. Saturday morning, the 3rd, Major Richard Netherstall, Acting Commanding officer of the camp presented apologies to all parties concerned and on the 22nd a Major Newall of the Inspector General's Office of the Hawaiian Department arrived to get further information of the affair as Major General Short's representative prior to preferring charges against Major Rees for a general court martial. Ranger Jess' report of the altercation is attached.
Building Fire Protection

The park Pacific fire pump was remounted on a Chevrolet Truck, recently transferred from the CCC. This truck is being converted into a pumper of sorts that is a vast improvement over the old Model A station wagon that we have used for some years.

This Pacific pump is being driven directly by the truck's motor rather than by the old Model T motor originally powering this improved pump. Hose baskets, a 250-gal. booster tank and tool boxes are being provided on this unit.

Public Safety

The Park Safety Committee held its monthly meeting on May 23.

B.F. Moosmayer, Jr.,
Asst. to Supt.
REPORT OF ACTING CAMP DIRECTOR HERBERT R. RENNIE TO PARK SUPERINTENDENT EDWARD G. WINGATE, FOR THE MONTH OF MAY, 1941.

During the month we enrolled twelve (12) boys and discharged thirty-four (34), of which twelve (12) were for expiration term of service, one (1) for being under age, one (1) administrative discharge (medical case), two (2) dismissal (desertion), and eighteen (18) for securing employment elsewhere. The eighteen (18) boys who secured employment elsewhere, were a part of a group selected by Mr. Joseph Guerrero of the Honolulu Employment office, who paid the Camp a visit on Monday, May 19, 1941. He was allowed to pick out the boys that he needed, with the idea in mind that this type of cooperation with the employment service will prevent boys from getting off on their own time to look for work, especially when it was pertaining to the kind of work that Mr. Guerrero had to offer. Incidentally, since Mr. Guerrero's visit to the Camp, we have not had one boy who has gone off on his own time.

Mr. Everett A. Pesonen, CCC Field Supervisor, arrived on May 16, and left on May 20, after making a thorough inspection of all phases of the CCC activities.

Mr. Samuel Milne arrived from Maui with twenty-four (24) enrollees. Out of the bunch that arrived from Maui, five (5) have since run out and are being carried as A. W. O. L. One (1) Maui boy, Dimas De Luz whose expiration term of service was to have been in six (6) days, was allowed to go back on the same day that he arrived from Maui, due to conditions which have been explained in a note to your office.

The Repairs and Maintenance that we had expected to do in the Camp have been temporarily suspended, due to not being able to expend the One Thousand Fifty ($1,050.00) Dollars which had been previously approved by Radio. As soon as this has been clarified, the necessary steps will be taken for the continuation of all necessary repairs in the Camp.

The Sanitation which is under the direct supervision of the Dispensary Clerk, William A. Isherwood, is being carefully checked over everyday and once a week by Dr. Phillips.

The First-Aid class, started by Dr. Phillips for all Leaders and Assistant Leaders, and prospective leadership material has proven very satisfactory. It is expected that within a very
For the Superintendent

June 4, 1941

short time the members of the class will be entitled to their Red Cross Certificates.

We had two (2) Safety meetings for the month, putting stress on truck driving and the method of handling tools. The Safety Assistant's Report shows that the safety rules and regulations have been complied with, and the few conditions that he recommends will be carried out. The Foremen have all been issued their Explosive Certificates.

Decoration day, falling on a Friday, the boys were allowed to go on leave after work on Thursday, returning to Camp Sunday night. The necessary hours that ordinarily would have been working on Saturday morning, were made up by working an hour extra each day.

There were thirty-one (31) mandays lost from the projects due to sickness, etc. During the month we had a daily average of one hundred forty-three (143) enrollees in Camp, of which ninety-four (94) were released to the Project Superintendent. A daily average of forty-nine (49) enrollees were retained by the Acting Camp Director for Camp Overhead, which includes, K.P., Office staff, Garden work, and also light duty, conditioning, special detail work, sick, leave, A. W. O. E., etc. The total working days for the month were twenty-one (21). One thousand nine hundred seventy (1,970) mandays were utilized on the various projects.

Mr. Samuel Milne was appointed Acting Project Superintendent on May 17, 1941, and he has proven himself quite capable of handling that position. The above change was put into effect because the Landscape Architect's work was being held up, and it necessitates Mr. Hewitt staying in the office most of the time.

The general condition of the Camp in respect to morals, etc., is very satisfactory. The writer is more than pleased with the cooperation of the enrollees, and it is hoped that this fine cooperation will be continued.

JOB REPORT

Job 54, Observatory & Naturalist Building.

The rock work on this job has increased to a noticeable degree since the entrance on duty of the Mason Foreman, Masao Miyaki. He has shown himself very proficient in the execution of his Mason duties, and it is hoped that he may be retained as long as it is possible. The Carpenter work has also shown a marked degree of progress since Mr. Earle
For the Superintendent —3—

Russell, the carpenter instructor arrived on the job. He has been able to assist the two (2) carpenter foremen in the various practical short-cuts in carpentry. The wet weather that we had this month, halted temporarily the laying down of the shingles; nevertheless the shingling has been recommenced and is progressing satisfactory. From all indications, we should have most of the frame work, and nearly all of the roof completed by the first week of July. More than half of the property and records of the old Observatory building have been moved over to the basement of the new building. The tearing down of the old Observatory building which is in the way of the Volcano House contractor, has been done.

Job 52, Horse Corrall & Shed.

This project was completed this month by putting in the quarter-mile of fencing needed. A completion report will be presented shortly.

Job 53, Minor Road.

Very little work was done on this project, since we have reached the point where no further work need be done until the new hotel is completed.

Job 64, Parking Area.

Continuation of this project has been started in front of the Administration building, and is progressing satisfactorily.

Job 72, Landscape Development.

The landscape crew is progressing satisfactorily in the soil preparation and in the planting necessary; the rainy days that we had this month helped out considerably in the planting.

Job 74, Cesspool, Volcano House.

This project has been started again, and will be continued until it is completed.

Various other mandays were used in the continuation of smaller projects, such as the operation of Incinerator, Educational Guide and Contest, etc.

Herbert R. Rennie
Acting Camp Director.
Memorandum for the Superintendent:

Subject: Foreman's monthly report on activities of Maintenance Division during the month of May, 1941.

Routine maintenance, such as garbage disposal, kerosene delivery, roadside clean-up, wood delivery and office janitor work were carried out.

101. Office janitor work was carried out by Maintenance Division during the absence of Chas. Kauhi on sick leave.

104. A great portion of Kawasaki's and Fujimoto's time during May was spent in building new fire truck.

105. Built photographic enlarging stand for Fagerlund.


202. Started laying rock on shoulders in stream flat. Due to the shortage of laborers this job is going to be a long drawn out affair, inasmuch as there will be 50 cu. yds. of material laid on these shoulders. Filled holes in parking area at Volcano House. Made and installed new sprocket on power grass cutter. This change was made in order to increase the cutting efficiency of this piece of equipment.

207. Lawns were cut once during month. Several man days were spent in haulng dirt of home defense gardens. Removed all unsightly aerials in Residence area.

211. Repaired water tank at Fujimoto's Residence. Moved and installed 5000 gal. water tank at Hanania's Residence.

218. Drained, flushed and refilled chemical toilets at Uwekahuna Museum and Haleakumau.

226. Changed refrigerator at Supt's Residence. Cleaned all chimneys and gutters on park buildings. Several man days were used in preparing Administration Building and cars to be used during Blackout, May 20, 1941.

Respectfully submitted,

[Signature]

Herbert J. Quick
Foreman of Gons. & Maintenance
June 6 1941

MEMORANDUM FOR THE SUPERINTENDENT

Report of the Hawaiian Volcano Observatory for the month of May

Both Mauna Loa and Kilauea continued quiet throughout the month. At Halemaumau, however, landslides were frequent during the first half of the month.

There was pronounced southerly tilting for the month as a whole though by the last few days a northerly trend had set in.

It appears that many of the Kilauea earthquakes occur at origins deeper than was common at times when molten lava was present as some of the feeble Kilauea shakes are reported as just perceptible in Hilo.

The following table gives some of the quantitative data obtained during May:

<table>
<thead>
<tr>
<th>Week</th>
<th>Crack movement</th>
<th>Tilt</th>
<th>Seismicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ended</td>
<td>millimeters</td>
<td>disturbances</td>
<td></td>
</tr>
<tr>
<td>May 4</td>
<td>0.5 closing</td>
<td>Slight NNE</td>
<td>27</td>
</tr>
<tr>
<td></td>
<td>1.0 opening</td>
<td>SSW</td>
<td>13</td>
</tr>
<tr>
<td>15</td>
<td>0.5 closing</td>
<td>Mod SSE</td>
<td>15</td>
</tr>
<tr>
<td>28</td>
<td>1.0 &quot;</td>
<td>Strong SSW</td>
<td>28</td>
</tr>
</tbody>
</table>

Work of R H Finch

During the month half of the "tin" house was torn down to make room for the hotel and the library moved into the remaining half. My office was moved into one of the basement rooms of the new Observatory Naturalist building. The first quarter Volcano Letter was completed and sent to the printer. The Journal Club held a successful meeting with Messrs Moomaw, Faggrland, and Olsen reviewing papers. One week was spent on Maui installing a seismograph at the Haleakala Ranger Station. Arrangements were made for moving instrument shop tools and equipment into new building.

Work of P. E. Schulz

The daily routine of measuring seismograms and care of instruments takes up a large part of his time. Weekly the results are computed and plotted.
Routine correspondence was kept up to date. On his own time he inspected the Kona seismograph station and looked over a proposed new location. One special job was arranging a device for the location of local earthquakes. He took 7½ days off but spent most of 3 days of this period on special official duties.

Work of E. J. Loucks

In addition to the daily tending to seismograph which takes up a large part of his time Mr. Loucks was occupied as follows:

<table>
<thead>
<tr>
<th>May 1</th>
<th>On Fire truck</th>
<th>5½ hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>Overhauled clock in seismologists office</td>
<td>5 hours</td>
</tr>
<tr>
<td>5</td>
<td>On Seismograph driving clock</td>
<td>½ hour</td>
</tr>
<tr>
<td>12</td>
<td>Packing tools and equipment for installing Malakula seismograph</td>
<td>3½ hours</td>
</tr>
<tr>
<td>29</td>
<td>Facing new spricket for Mr. Quick</td>
<td>3 &quot;</td>
</tr>
<tr>
<td>4-31</td>
<td>Cleaning tools and machinery</td>
<td>5½ &quot;</td>
</tr>
</tbody>
</table>

R. H. Finch
Volcanologist
### Travel Report

**Malekula Section, Hawaii National Park for the month of May 1941**

<table>
<thead>
<tr>
<th></th>
<th>This Month</th>
<th>Travel Year</th>
<th>Last Year</th>
<th>Increase or Decrease for Annual Year</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PRIVATE TRANSPORTATION:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cars first entry</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cars reentry</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Motorcycles</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total motor vehicles</strong></td>
<td><strong>224</strong></td>
<td><strong>250</strong></td>
<td><strong>230</strong></td>
<td><strong>224</strong> [8]</td>
</tr>
<tr>
<td>Persons entering via motor vehicles</td>
<td><strong>224</strong></td>
<td><strong>250</strong></td>
<td><strong>230</strong></td>
<td><strong>224</strong> [8]</td>
</tr>
<tr>
<td>Persons entering via other private transportation</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total persons entering via private transportation</strong></td>
<td><strong>1250</strong></td>
<td><strong>1250</strong></td>
<td><strong>1250</strong></td>
<td><strong>1250</strong> [8]</td>
</tr>
<tr>
<td><strong>OTHER TRANSPORTATION:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Persons entering via stages</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Persons entering via trains</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Persons entering otherwise</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total other transportation</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>GRAND TOTAL ALL VISITORS</strong></td>
<td><strong>1250</strong></td>
<td><strong>1250</strong></td>
<td><strong>1250</strong></td>
<td><strong>1250</strong> [8]</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>This Year</th>
<th>Last Year</th>
<th>Increase Number Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Automobiles in public camps during month</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Campers in public camps during month</td>
<td>25</td>
<td>33</td>
<td>8 [24]</td>
</tr>
</tbody>
</table>
UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

(KILAUEA SECTION) TRAVEL REPORT

<table>
<thead>
<tr>
<th>Hawaii</th>
<th>National Park for the month of May, 1942</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>This Travel Month</td>
</tr>
<tr>
<td></td>
<td>Number</td>
</tr>
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</table>

PRIVATE TRANSPORTATION:

<table>
<thead>
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<th></th>
<th>ESTIMATED</th>
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</thead>
<tbody>
<tr>
<td>Cars first entry</td>
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<tr>
<td>Cars reentry</td>
<td></td>
</tr>
<tr>
<td>Motorcycles</td>
<td></td>
</tr>
<tr>
<td>Total motor vehicles</td>
<td></td>
</tr>
<tr>
<td>Persons entering via motor vehicles</td>
<td>24,267 162,865 25,283 138,804</td>
</tr>
<tr>
<td>Persons entering via other private transportation</td>
<td></td>
</tr>
<tr>
<td>Total persons entering via private transportation</td>
<td>24,267 162,865 25,283 138,804</td>
</tr>
</tbody>
</table>

OTHER TRANSPORTATION:

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Persons entering via stages</td>
<td></td>
</tr>
<tr>
<td>Persons entering via trains</td>
<td></td>
</tr>
<tr>
<td>Persons entering otherwise</td>
<td></td>
</tr>
<tr>
<td>Total other transportation</td>
<td></td>
</tr>
<tr>
<td>GRAND TOTAL ALL VISITORS</td>
<td>24,267 162,865 25,283 138,804 24,051 173</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>This Year</th>
<th>Last Year</th>
<th>Increase</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Percent</td>
<td></td>
</tr>
</tbody>
</table>

Automobiles in public camps during month
Campers in public camps during month
MEMORANDUM for the Superintendent.

The following is the Chief Ranger's report of the activities of the ranger division for the month of May.

All work has been confined to normal routine and no outstanding event for the month is listed.

Weather Conditions. Rainfall for the month was 9.19 inches. This is a sizeable increase when compared with 2.19 inches for April. Total rainfall for the period January 1 to date is 22.62 inches.

General Publicity. A press release covering guided trips to the summit of Mauna Loa during the summer months was prepared and sent to the various newspapers. An interesting newspaper account of the water heating device installed by the park operator was noted during the month.

Maintenance. Routine maintenance of the telephone system, traffic counters, trails, and signs was carried out during the month.

Lecture and Guide Service. The following public contacts were made by members of the ranger division:

- 21 park tours for 814 persons.
- 6 hikes for 64 persons.
- 8 lectures for 517 persons.
- 2 showings of Krakatoa for 178 persons.

Museum Exhibits. While the improvements made to the relief model of the island at Uwelakuma are very good and have added much to the public's enjoyment of this exhibit, it is noted that the large lava flow which stopped in the outer edge of what is now...
known as Hilo is dated as occurring in 1880. This should be changed to 1881, as this flow did not come to a stop until July of 1881 and is commonly referred to by people throughout the Territory as the 1881 flow.

The museum case marker for the exhibit of dense basalt or adze rock states that the inflow of lava into Keanakakoi was in 1873. According to Hitchcock, this should be 1877.

Increase in Travel. Travel figures for the month show an increase or 2300 persons over those for April. This is classed as a normal seasonal fluctuation.

Visitors. Visitors or note contacted during the month were as follows:

Dr. Blankenhorn, professor of medicine at the University of Cincinnati.
Frank C. Atherton of Honolulu.
Stanley C. Kennedy, president of Inter-Island.
Miss Helen Poindexter, daughter of the Governor.
Mr. Wilson, Masonic past grand master for the District of California.
Mr. and Mrs. Charles R. Frazier of Honolulu.

Ranger Service. Routine night patrol, flag duty, museum and switchboard assignments were carried out during the month. Patrols were made to Wapuu Crater, Hilina Pali, and the seacoast areas of Halemau, Aumo, and Keanakakoi. Public contact work for the month was above average in the number of contacts.

Seven pigs were destroyed in Kipuka Puaulu. Seventeen goats were destroyed in the Hilina Pali section.

Two reprimands were given to visitors in the Kipuka Puaulu area for violation of park regulations. Two assists were given to motorists during the month.

Assistance was given in carrying out the Territorial blackout. A test mobilization of the Emergency Police Guard was held. The various squads in this unit were reorganized during the month due to the departure of several key members.

In accordance with recent instructions, an inspection is being made on every other day of the CCC powder and cap houses. One hundred and twenty three cases plus twenty sticks of powder are now on hand. Also 514 #6 electric blasting caps and 300 #6 fuse caps.
Inspection was made of the houses and they were found to be in good condition. They are well constructed of heavy material and are locked at all times. It is felt that they are well protected against vandalism.

One meeting of the Safety Committee was attended.

Police Protection. A disturbance at the Volcano House on the 2nd. was investigated and reported. This involved a U. S. Army major who was found in a drunken condition and was taken to his quarters at Kilauea Military Camp.

Building Fire Protection. Fire drills were held at the Volcano House and CCC Camp during the month. The fire truck was tested and found to be in good working order. It is a decided improvement over our old one.

Accidents. One accident involving two trucks from the CCC Camp was investigated during the month and has been covered by a separate report. This is the only accident to be reported for the period.

Miscellaneous. Considerable interest has been aroused over the experimental water heating system which has been installed by Mr. John Singleton, assistant manager of the Dearborn Chemical Company of Honolulu, for the park operator. This utilizes natural steam which issues from the vents located to the rear of the present cottages. This steam has a temperature of 118 degrees F. and in passing it through a system of copper pipes the water used for showers and washing purposes is heated to this temperature. This appears to be a practical installation and should furnish a dependable hot water supply.

Joseph H. Christ, Chief Ranger.
May 31, 1941

Memorandum to Superintendent Edward G. Wingate
Through office of Chief Ranger J. H. Christ.

Enclosed are monthly travel report, narrative report, information for FFU-1, and Ranger Station and Pakaono observatory 1005-Met'1. reports.

Frank A. Hjort
Acting Ranger in Charge
Memorandum to Superintendent Edward G. Wingate through office of the Chief Ranger J. H. Christ.

The following narrative report of the Haleakala Section for the month of May, 1941 is respectfully submitted:

000 General

010 Introduction

This month marked the leaving of the Haleakala Guard camp of the CCC. At 9:00 P.M. on May 13th 25 enrollees, the Cook, and foreman Milne left the island from Lahaina on their way back to the Base camp at Kilauea. Since the departure things have seemed strangely quiet at the Ranger Station.

Roy H. Finch, James K. Higashida, and Kenneth Kim arrived on Maui in the wee small hours of the morning on the 15th. Mr. Finch, head of the naturalists in Hawaii National Park, installed a seismograph in the recently constructed shelter there. Mr. Higashida, chief clerk, came in connection with the property transfers necessary because of the moving of the CCC camp. Mr. Kim, CCC clerk, who left on the 16, also came because of the CCC move. Messrs Finch and Higashida left on the night of the 20th.

020 General weather conditions

At Pakalono Observatory this month the winds were mostly from the east with only one day of rain which amounted to 0.14 inches and occurred on the 16th. The max. for the month was 65 on the 8th, while min. was 33 on the 9th. There were 12 clear days, 16 partly cloudy, and 3 cloudy days. No frost was seen.

The Ranger Station fared a little better with respect to rain by totaling 2.93 inches. There were 10 clear days, 12 partly cloudy days, and 9 cloudy days this month. Winds were from the east and west in the day time with only east winds at night. Max. and Min. for the month were 77 on the 2nd and 30 on the 28th-29th respectively.

100 Administrative

120 Park inspections by

123 National Park Service Officers

As already mentioned Naturalist Roy Finch, Chief Clerk Higashida, and CCC Clerk Kenneth Kim visited this section of the park this month.
Equipment and supplies.
The new motor for the power plant here arrived this month.

Activities of other agencies in the park

Public service contractors

Character of service rendered to the public

The Maui Grand Hotel under the management of Mr. Ogilvie has not replaced the operators on the summit as yet so no service has been rendered the public here this month by public service contractors.

Cooperating governmental agencies

Word has just been received that the Aerological Office of the Navy at Pearl Harbor has consented to take over the telephone formerly paid for from CCC funds and situated at the top of the crater. This will enable the weather observations taken there by the Navy to go on uninterrupted.

State, county, or municipal legislation affecting parks.

The Chairman of the Maui County Board of Supervisors has agreed to include in the traffic code for this county the limiting of the speed on the road from the upper Kula road to the Park boundary to 30 miles per hour to coincide with the Park speed limit of 30 miles per hour. The speed according to law was formerly 50 miles per hour on this road which was entirely too fast for a crooked single width road. The above agreement was reached as a result of a suggestion made by Acting Ranger in Charge Frank A. Hjort to the board of supervisors.

Flora, fauna, and natural phenomena.

A recent trip through the crater brought out the surprising fact that there are a number of silverswords in full bloom and an estimated hundred that will bloom in a short time. Evidently the extremely dry weather has caused these plants to bloom at this early season. One blossom on Puu Maile was found to be six and a half feet tall.

Use of Park Facilities by the Public

Increase of decrease in travel

This travel year to date is 6% behind last years travel year at this time. This month showed more travel than this month last year.

Protection

Destruction of predatory animals.

22 goats were destroyed this month, 14 being billies and 8 nannies.
Information for FPU-1

Visitors:
- From out of Territory: 234
- From the Territory: 1096
  \[ \text{Total: 1320} \]

Campers: 25 (spent 27 nights in rest houses)

Sightseers: 1295
\[ \text{Total: 1320} \]
MEMORANDUM for the Superintendent through the Chief Ranger:

My narrative report for the month of May, 1941, is submitted as follows:

List of contacts were as follows:
May 10, Inter-Island Tour, 13 for 1 1/2 hours.
" 15, HMS Tour for 45 for 2 1/2 hours.
" 17, Tour for US sub. squadron, 38 for 2 1/2 hours.
" 17, Talk and movies at Museum, 39 for 3 1/2 hour.
" 18, Talk and movies at Museum, 110 for 2 1/2 hour.
" 19, Bird Park Hike, 19 for 1 1/2 hours.
" 20, Tour for Comdr.Reed and Capt. of USS Hamashia, 2 for 2 hours.
" 22, Mauna Loa trip for Mr. and Mrs. Charles Frazier and guests, (changed seismograph), 4 for 3 hours.
" 23, Mauna Loa Hike, 51 for 3 1/2 hours.
" 25, Mauna Loa Tour, 7 for 2 1/2 hours.
" 23, 2 illustrated talks to Hilo Hi Chem. and Biology classes, 139 for 3 1/4 hour, Subject, Hawaiian birds.
" 24, 3 illustrated talks to Hilo Hi Chem. and Biology classes, 221 for 3 1/2 hour, Subject, Hawaiian Plants.
" 30, Assisted with tour for USS Medusa and Vestal, 300 for 3 1/2 hours.

Total visitor participation hours, conducted trips, 620, Lectures, 377. Total attendance, 750.

Miscellaneous duties for the month were:
Perused and made notes on two superintendents' reports.
Annual leave was taken May 1 and 3 to 7 inclusive.
About 10 half-days were spent on inventory of museum and Naturalist office. About 1 1/2 days were spent at the tree nursery.
No time was available for wildlife study or observations, goat hunting, exotic removal, etc.
All regular routine duties were done as directed.
The following plants were transplanted at the nursery; 13 uulei, 51 manele, 1 kauila, 2 maile, 2 papalana kepau, 2 kulea, 3 mamani and 7 pawale and 48 naio.
Several species are now ready for planting out in the headquarters area, wherever and if they are needed by the landscaping division.

Gunder E. Olson, Park Ranger.
MEMORANDUM for the Superintendent through the Chief Ranger.

Subject: Narrative report for May.

Work for the month was confined to normal routine.

Inspections were made of the various building jobs in progress. Assistance was given the CCC organization in the installation of the electric wiring system at the observatory and naturalist building. The plate lines and elevations were established for the museum and auditorium sections of this building. Grades and construction lines were set for the parking area located in front of the park office building. Clearing lines were established for the road leading to the garage to be build for Dr. Jaggar. An alignment change for the Volcano House entrance road was worked out.

Maintenance of telephone instruments and traffic counters was accomplished.

A disturbance at the Volcano House was investigated on the 2nd. and a separate report has been submitted. On the 22nd. I was questioned regarding this matter by Major Newell of the Inspector General's Office.

Assistance was given in preparing for the Territorial blackout by distributing posters and installing the warning sirens at Okano's and Kekelani School.

One assist was given to a motorist:in trouble at Kipuka Nene.

Five park tours were conducted, with a total attendance of 135 persons.

[Signature]

Arthur L. Jess,
Park Ranger.
Memorandum to the Superintendent through the office of the Chief Ranger

Subject: Narrative report for May 1941.

Routine Duties
My routine duties for the month were regular assignments at flag duty, patrolling, night check, museum duty, switch board.

Miscellaneous Duties
Supervising CCC boys grubbing out exotic plants, cultivating and erecting wire guards around tree seedlings at Helini Pali, brushing out along trails, etc. I also hunted goats one half day (7 goats destroyed), painting miscellaneous signs, working on fire prevention inventory, etc.

Public Contacts

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
<th>Attendance</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>May 1</td>
<td>Hauna Iki Hike</td>
<td>- (Special)</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-</td>
<td>2 cars 9 people</td>
</tr>
<tr>
<td></td>
<td>Hauna Iki Hike</td>
<td>-</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Inter Island Tour</td>
<td>-</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Bird Park Hike</td>
<td>-</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Krakatoa at RMC Theater</td>
<td>-</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Park Tour (Sailors)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Park Tour ('Hilo School)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Park Tour (U.S.S. Kamanawa)</td>
<td>-</td>
<td>13</td>
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<tr>
<td></td>
<td>RMCTour</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Park Tour (Pahoa School)</td>
<td>-</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Park Tour (Dr. Wilson PM of Cal of AEA)</td>
<td>-</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Park Tour (U.S.S. Medusa and Vestal) (U.S.300)</td>
<td>-</td>
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<td>Napau Greeter Hike</td>
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Total participation hours for tours and hikes 1,745

Out Side Activities
I attended two classes of photography, two meetings of the Toastmasters Club and took active part and have continued a study on Hawaiian Mythology and early Hawaiian history with reference to Kilauea.

Suggestion
I wish to suggest that before the landscape planting plan for the new Volcano Museum is started, that the following suggestion be given careful consideration.

That in the formulation of the plan, an arboretum could be easily created.
Many native trees, tall growing shrubs could be utilized as a screen, medium height and low growth shrubs could be planted to an advantage as facers in cutting down sharp building corners, bed facers, etc there by varying the use of as many plants as possible. Each tree and plant where same are in a group or individually, be labeled their botanical, common and Hawaiian names. The Hawaiian names translated to their meaning also the use of same by the early Hawaiians.

Respectfully submitted

Charles E. Miller
Park Ranger
MEMORANDUM FOR THE SUPERINTENDENT,
THROUGH the Camp Director.

Census

Regular counts were taken on established plots.

Life History

Life cycle observations were continued on banded birds. Most of the time on this project was spent on working with field notes, transcribing observational records into permanent form. This is preparatory to working up the information into coherent life history accounts.

Food Habits

Correspondence was carried on with Mr. A. W. Nelson, Acting in Charge, Food Habits Division, Fish and Wildlife Service, in regard to fecal analysis technique. Additional stomachs were collected for analysis.

Parasites and Diseases

Lice were collected from the Hawaiii Amakihhi for the first time. These are being sent to Dr. Cope, of Stanford University for identification.

Reconnaissance

The Pit Craters in Kau Desert were visited for continued observation on the breeding Koa'e.
Grazing project

The first draft of the report for the Director was finished, and then it was rewritten after the committee had read it and talked it over.

Respectfully submitted,

Paul H. Baldwin,
Senior Wildlife Foreman
<table>
<thead>
<tr>
<th>Date</th>
<th>Census</th>
<th>Life Habits</th>
<th>Food</th>
<th>Parasites</th>
<th>Recon</th>
<th>Grazing</th>
<th>Misc. Hours</th>
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On annual leave from 1:00 p.m., May 26, to 1:00 p.m., June 3.
UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

FILE NO.

MONTHLY REPORT
APRIL 1941

IMPORTANT
This file constitutes a part of the official records of the National Park Service and should not be removed 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.
MEMORANDUM for the Director:

There follows the report of activities for Hawaii National Park during April.

General 

Introduction 

Park personnel figured largely in this month's activities: Assistant Geologist and Mrs. Hugh L. Weissbe, with their small son, left for Grand Canyon National Park April 2, where Mr. Weissbe has been transferred as assistant park naturalist; and OSC Camp Director and Mrs. Frank O. Houston departed for the mainland on the 9th on extended leave. Dr. Howard A. Powers, ranger in charge of the Haleakala section, was called to active service with the Army, and entered on duty with the Quartermaster Corps at Hickam Field, Oahu, on the 2nd. Clerk-Stenographer Constance Whitney returned from two months' leave spent on the mainland, April 14.

The staff committee on food production continued formulating plans for home gardens and a vegetable garden at the OSC camp.

A strike, because of wage difficulties, was called by crews of the Inter-Island steamers on the 18th. This strike, which threatened to become serious, turned out all right, with the ships missing only one sailing.

General Weather Conditions 

Rainfall at Kilauea during April amounted to 2.19", with maximum and minimum temperatures of 72 and 67 degrees, and maximum wind velocity of 32 mph on the first. At Haleakala Ranger Hjort reports maximum and minimum temperatures of 64 and 35 degrees at the summit and 73 and 35 degrees at the ranger station. There was no precipitation at the summit and only .38" at the ranger station.

Administrative 

Superintendent's Special Activities 

The superintendent and Mrs. Wingate were in Honolulu from the 16th to the end of the month on leave. The first two weeks of the month were
devoted to routine inspections, office work, and business in connection
with the local Selective Service Board. While in Honolulu on leave some
time was spent at Fort Shafter with Army officials relative to installa-
tions at Kalakala. Conferences were held with General Walter Short, Com-
manding the Hawaiian Department and several staff heads. The superintend-
ent also visited the session of the Territorial Legislature on the 29th.

On the 19th Acting Superintendent Moomaw and Ranger Olson visited the
Puna District Products Show at Pahoa; sponsored by the schools in that
district, which they considered very worthwhile and interesting agricul-
tural exhibit. Mr. Moomaw also attended the regular meetings of the

120 - Park Inspections

Mr. Eugene Jordan, Acting Director for the Vocational Training Prog-
gram in the Territory, visited the CCC Camp on the 16th, and went over all
phases connected with this program; which started April 1, with classes
in welding, auto mechanics and carpentry.

130 - Investigations of new park areas

Considerable time was spent by Senior Wildlife Foreman Baldwin and
Park Naturalist Yagerlund studying the effects of cattle grazing on koa
and other native vegetation in that part of the park which had been used
by the Kapapala Ranch for grazing purposes.

150 - Plans, maps and surveys

The corrected master plan was forwarded to the Regional Office April
30.

Re-indexing of the office map and plan file was completed during the
month.

160 - General Publicity

The manuscript recently completed by Miss Erna Ferguson of Albuquer-
que, entitled "Pele and the National Park" was reviewed by the superinten-
dent, who feels this book of Miss Ferguson's will be a worthwhile con-
tribution to Hawaiiana.

Much favorable comment was made in territorial newspapers on the oc-
casion of the 8th anniversary of the CCC. An excellent, full-page feature
article by CCC Field Supervisor Pesonen, entitled "CCC in National
Defense" appeared in the Saturday Magazine and Feature Section of the
Honolulu Star-Bulletin, April 5.

Sixty thousand copies of the 1941 circular of information were re-
ceived in April.
200 - Maintenance, New Construction and Improvements

220 - New Construction

Framework for the new Volcano Observatory and Naturalist Building (COO Job 63) was commenced in April and by the end of the month the building was 45% complete.

Work is also progressing satisfactorily on the minor road behind the administration building (COO Job 65) and the landscape development project at the Volcano House (COO Job 76). They were reported as being 57% and 7% completed, respectively, at the end of April.

230 - Special Improvement Activities

COO - While Camp Director Huston is on leave Project Superintendent H.B. Rennie is acting in the capacity of director; and Senior Foreman (Landscape) E.M. Hewitt was designated acting project superintendent. Mr. Earl Russell of Honolulu was sent to the park on the 19th as instructor for the project training class in carpentry, by the Territorial Department of Public Instruction. Mr. Russell has been a great help to the foremen on the various carpentry jobs now in progress, in both advisory and supervisory capacity.

Vocational training in line with the defense program was started April 1 with 24 boys enrolled in the welding class, 14 in the auto mechanics class and 14 in the carpentry class (started April 21.). Park Foreman H.J. Quick is instructor in the welding class and COO Mechanic Stanley Nakamura instructs the mechanics class.

An allotment of $1,060 was approved by transfer from the enrollee's account to be used in repairs and maintenance of the camp.

Twenty two boys were enrolled and 15 discharged in April; of which 7 were for expiration of term of service, 7 for securing outside employment and 1 desertion. The project superintendent reports 94 man-days were lost from projects; and during the month there was a daily average of 186 boys in camp.

At Makapu'u 426 man-days were used on two projects; and there were no enrollments nor discharges in April.

300 - Activities of Other Agencies in the Park

310 - Park Operators

Construction of the new Volcano House is progressing very satisfactorily and if the contractor is able to continue to get materials, this office is of the opinion that the building will be completed before the termination date of the contract.
On April 10 the traditional "progress tea" marking the arrival of the building at the roof stage, was given by Mr. Lycurgus, Superintendent Wingate, various staff members, the Japanese contractor and his crew, were in attendance.

The acting ranger in charge of the Haleakala section reports the operator there has failed to locate an attendant for his concession at the summit observation station, consequently no service was rendered this month.

Annual financial statements for Hatayama Bus Service and the Volcano House were submitted in April.

340 - Legislation Affecting Parks

Both houses of the Territorial Legislature passed a resolution requesting the Commissioner of Public Lands to proceed with the acquisition of the privately owned land in the Kalapana addition to the national park, as authorized by Act of Congress, June 1938. The resolution is awaiting the Governor's signature. The Hilo Chamber of Commerce and the Namahana Society of Hilo both sent letters to members of the legislature urging passage of this resolution.

400 - Interpretation

410 - Lecture and Guide Service

Seventeen different special parties, totaling 664 persons, were given service in April. The largest of these parties was the Hawaii Homemakers, with 150 members.

With the departure of Mr. Wasseba for Grand Canyon his duties were taken over by Ranger Schutz who has been assigned Acting Assistant Geologist. This shifting left the park naturalist without any assistance.

A brief talk was given by Park Ranger Bjork at Pahako Observatory (Haleakala) on the 10th to 400 Boy Scouts from outside islands attending the Territorial Boy Scout Camporal on Maui.

430 - Research and Observation

432 - Zoology: Wildlife Research Baldwin reports work was continued on regular counts on established bird census plots; and that observations were continued on banded individuals in Kipuka Kukui for information concerning nesting of native forest birds. Trips to the pit craters in the Kea desert, nesting habitat of the Koa (white-tailed tropic bird) revealed one and possibly two pair of these large birds nesting at this time. The nest was in a recess in the crater wall about 15 feet below the top of the crater wall.
Mr. Baldwin believes Kaalualu is the most favorable locality for shore birds in this general region. There is no place so favorable on the shoreline of the national park or in all probability on the entire island. Territorial legislation has provided for complete protection of the Kolea (Pacific golden plover) but the presence of shells at Kaalualu indicates that poaching is going on because of inadequate means of law enforcement under present conditions. The matter is mentioned at this time so that if the chance should arise at any future time for the Service to acquire or establish protection over localities of bird concentration along the shore, Kaalualu could be given first consideration.

433 - Geology: There were a few rock slides from the walls of Haleakalua. A slide accompanied the moderate earthquake of April 20. A series of quakes occurred on this day, the origins of which centered at Kiluea. The moderate quake of the 20th was widely felt over the southern half of the island. There was another series of Kilua earthquake on April 25, 26 and 27th. The seasonal southwesterly tilt appeared to cease during the last week of April. The southeast tilt for 1941 was much less than normal. There has been an accumulation of 17 seconds of northeasterly tilt since 1939 indicating a slow building up of volcanic pressure since that year.

500 - Use of Park Facilities by the Public

510 - Increase or Decrease in Travel

There was a total of 21,874 visitors to the Kiluaea section in April as compared with 24,712 for April 1940; and at Haleakalua the ranger in charge reported 1970 visitors.

520 - Visitors

Mrs. Louise L. Lomstra, President of the American Legion Auxiliary, on the 14th.

Dr. Louise Kingsley, Professor of Geology at Wellesley College, visited the park in April. She was given special attention by the Observatory staff.

Judge Christy of the Territorial Circuit Court was also a visitor in April.

600 - Protection

640 - Forest Fire Protection

A small grass fire occurred along the Makalawena highway near the halfway house, just outside the park boundary, in April. This was not discovered until it had burned itself out. About 50 square feet of grassland was burned over and the fire was probably caused by a discarded match.
or cigarette. One hundred and six man-hours of pre-suppression training in the use of fire fighting tools was given to OCC enrollees.

650 - Building Fire Protection

Fire drills were held at the OCC camp and Volcano House during the month. Individual inspection of quarters by members of the staff was accomplished.

680 - Accidents

A station wagon driven by a visitor to the Haleakula section ran off the road in the fog on April 6. Although the car was badly damaged, none of the occupants was injured. The accident occurred 8/10 mile above the park office in the early morning.

690 - Public Health

Regular quarterly sanitary inspection of park and operators' buildings was made by the ranger staff in April.

900 - Miscellaneous

Ranger and Mrs. Gunner E. Olson announced the arrival of Robert Ray on the 11th.

The superintendent talked on two radio broadcasts while in Honolulu. One was over KAU, the 18th, on the tourist bureau program devoted to advertising the out-side islands, this particular program being concerned with Maui and the Haleakula section of the park; and the other was on the 21st, when he made a brief talk on the KHMB sports program.

Senior Foreman (Wildlife) Paul K. Baldwin, was appointed Secretary-Treasurer of the Hilo Toastmaster Club for the ensuing year.

The regular quarterly business and dinner meeting of the Hilo Federal Business Association, of which Mr. Nomay is president, was held in Hilo on the 26th.

The regular quarterly meeting of the Hawaii Natural History Association was also held in Hilo on the 23rd.

Edward G. Wingate
Superintendent
Show progress made on Volcano House, crater side of building. April 30, 1941
Large, healthy, isolated koa tree around which 24 root suckers were counted, growing as far as 90 feet from the parent tree.

These koa trees evidently grew up within an older koa grove that has since died.
Location of a chart quadrant used in study of grazing effects on koa. The fence was constructed around a grove of decadent koa in 1936. Cattle were removed from area outside fence, October 5, 1940.

Kilauea crater rim road, west of Chain-of-Craters junction, showing Mauna Loa.
**UNITED STATES**  
**DEPARTMENT OF THE INTERIOR**  
**NATIONAL PARK SERVICE**

**TRAVEL REPORT**

**Kilauea Section, Hawaii** National Park for the month of **April, 1941**

<table>
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<th></th>
<th>This Month</th>
<th>This Travel Year To Date</th>
<th>This Month</th>
<th>Last Travel Year To Date</th>
<th>Increase or Decrease for Travel Year</th>
<th>Number</th>
<th>Percent</th>
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<td>Persons entering via motor vehicles</td>
<td>21,874</td>
<td>138,598</td>
<td>24,712</td>
<td>113,521</td>
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<td>Persons entering via other private transportation</td>
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<td>Total persons entering via private transportation</td>
<td>21,874</td>
<td>138,598</td>
<td>24,712</td>
<td>113,521</td>
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| **OTHER TRANSPORTATION:** |            |                          |            |                          |                                      |        |         |
| Persons entering via stages |          |                          |            |                          |                                      |        |         |
| Persons entering via trains |            |                          |            |                          |                                      |        |         |
| Persons entering otherwise |            |                          |            |                          |                                      |        |         |
| Total other transportation |            |                          |            |                          |                                      |        |         |
| GRAND TOTAL ALL VISITORS   | 21,874 | 138,598 | 24,712 | 113,521 | 25,077 | 22%     |        |         |

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<td>Number</td>
<td>Percent</td>
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<td>Automobiles in public camps during month</td>
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<tr>
<td>Campers in public camps during month</td>
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M. S. GOVERNMENT PRINTING OFFICE  1941-1727
UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

TRAVEL REPORT

Haleakula Section, Hawaii National Park for the month of [April 1941]

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<td>Total persons entering via private transportation</td>
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<td>11670</td>
<td>1194</td>
<td>1360</td>
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Other Transportation:

| Persons entering via stages |            |                    |                    |                     |
| Persons entering via trains |            |                    |                    |                     |
| Persons entering otherwise |            |                    |                    |                     |
| Total other transportation |            |                    |                    |                     |

GRAND TOTAL ALL VISITORS: 1870 11670 1194 1360 1190

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<th>Increase</th>
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<td>Automobiles in public camps during month</td>
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UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
HAWAII NATIONAL PARK
HAWAII
May 6, 1941

REPORT OF ACTING CAMP DIRECTOR, HAWAII NATIONAL PARK, HERBERT E. HENNIE, TO PARK SUPERINTENDENT, FOR MONTH OF APRIL, 1941.

During the month, we enrolled twenty-two (22) boys, and discharged fifteen (15), of which seven (7) were for Expiration Term of Service, seven (7) for securing employment elsewhere, and one (1) for desertion.

The Sanitation, of which is under the direct supervision of Dispensary Clerk, William Isherwood, is carefully checked over everyday, and once a week by Dr. Phillips.

The Recreational Activities had been more concentrated on Teens, going and playing on the outside. Considering that we have a larger group of younger boys in Camp, the activities will henceforth be more concentrated to Inter-Barracks or Inter-Gang activities. The Canteen which is for all boys in general, will be utilized in awarding prizes for all activities that arise in Camp.

Vocational Training in line with the Defense Program, was started on April 1, with twenty-four (24) boys enrolling in the Welding Class, and fourteen (14) in the Auto Mechanic Class. On April 21, we started a Carpentry Class with fourteen (14) boys. This makes a total of fifty-two (52) boys who are getting the benefit from these Vocational Training Classes.

Mr. Eugene Jordan, Acting Director for the Vocational Training Program, in the Territory, visited the Camp on April 15, and went over all phases connected with this Program.

A First-Aid Class was started with a group of twenty-four (24) enrollees, but after three lessons proved unsatisfactory, as the boys involved did not seem to grasp the idea of First-Aid. Dr. Phillips and the writer advocates perhaps that First-Aid Classes should be conducted more as a demonstrative type, rather than lesson type. Next month we are concentrating on the demonstrative type of First-Aid lessons, and hope that results may be gained from them.

Mr. Frank C. Hunt, Camp Director, has gone to the Mainland for a Three-Months Leave of Absence. Mr. Lavelle Hewitt was appointed Acting Project Superintendent, pending arrival of Samuel Wilse from Maui.

We had one (1) Safety Meeting for the month. The Safety Assistant Reports show that the Safety rules and regulations have been complied with. To conform to a Memorandum received from the Regional Director regarding
Park Superintendent

-2-  May 6, 1941

Certificates for all those who handle Dynamite, all Personnel handling explosives were made to take examinations over again and they will also take examinations in Hilo so as to have a Territorial License.

We received approval by Radio, for the expenditure of $1,050.00 from the Enrollee's Account to be used in repairs and maintenance of the Camp. Necessary steps have been taken to get these repairs and maintenance work started.

There were thirty-four (34) Man-Days lost from the projects, due to sickness, etc., of which one (1) was due to Accident on the Job. During the month, we had a daily average of 126 enrollees in Camp, of which eighty-eight (88) were released to the Project Superintendent. A daily average of thirty-eight (38) enrollees were retained by the Acting Camp Director for Camp Overhead, Light Duty, Conditioning, Special Detail work, and for Sick Leave, A, W, O, etc. The total working days for the month were twenty-two (22) which 1,941 Man-Days of the Projects.

JOB REPORT:

Twenty-two (22) Man-Days were used on Educational, Guide, and Contact work.

Three Hundred Seventy-one (371) Man-Days were used on the Minor Road project.

One Hundred Thirty-eight (138) Man-Days were used on the Volcano House Landscape Development project.

One Thousand Sixty-four (1,064) Man-Days were used on the Observatory and Naturalist Building.

Twenty-two (22) Man-Days were used for repainting Park signs.

Two Hundred Twenty-two (222) Man-Days were used in the Nursery and Vegetable Garden project.

One Hundred Two (102) Man-Days were used on Miscellaneous small projects.

HALUAKALA SIDE CAMP

Four Hundred Twenty-six (426) Man-Days were used on 2 projects during the month. There were no enrollments or discharges for the month.

Respectfully submitted,

Herbert L. Binnie
Acting Camp Director
Memorandum for the Superintendent:

Subject: Chief Ranger's report for April.

The Chief Ranger's report for the month of April is as follows:

010 - General: Work for the month was confined to normal routine and much has been the case for the past several months. Some rain fell during the month but our water supply is rather low at present.

020 - General weather conditions: Rainfall for the month was 2.19 inches. Rainfall for the period January 1 to date is 18.43 inches.

210 - Maintenance: The usual maintenance of telephone lines, instruments, traffic counters, and signs was carried out during the month. Maintenance work on the Hilina Pali trail was carried on during the month by the Park Warden.

410 - Lecture and guide service: The following public contacts were made by members of the ranger staff:

<table>
<thead>
<tr>
<th>Type</th>
<th>Number</th>
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<tbody>
<tr>
<td>Park tours</td>
<td>17 for 501 persons</td>
</tr>
<tr>
<td>Hikes</td>
<td>10 = 154</td>
</tr>
<tr>
<td>Lectures</td>
<td>1 = 52</td>
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</tbody>
</table>

510 - Increase or decrease in travel: Figures for the month show a decrease of 1160 persons as compared with those for March. This may be charged to the interruption of normal steamer traffic due to the strike of Inter-Island employees.
520 - Visitors: Visitors of note contacted during the month included Mr. and Mrs. Lindgren and party. Mrs. Lindgren is National Commander of the American Legion Auxiliary. Judge Christy of the Territorial Circuit Court was a visitor. A number of special groups were handled during the month, the outstanding of which was a party of 150 members of Hawaii Homemakers on the 5th.

610 - Ranger Service: Patrols were made to the summit of Mauna Loa, Kau Desert, Kamakua Hills, Napau Crater, Hilina Pali, Ayus, Kahua, Kaone, and Halepe during the month.

Forty eight goats and three pigs were destroyed in this section, and twenty goats within the Haleakula Section.

A disturbance of a minor nature involving the son of park laborer Waltjean was investigated during the month. The party concerned was reprimanded and placed on probation by the Assistant to the Superintendent.

One safety meeting was held during the month.

The Emergency Police Guard was reorganized due to the loss of a squad leader and several members. Activity of this group has been held to a standstill by the shortage of ammunition.

A trip was made into the bombing range area with Mr. Finch and Ranger Olson. The area was inspected and three goats were destroyed.

Routine work at the nursery was accomplished during the month.

A study was made of the vegetable garden situation and plans made for the addition of suitable garden plots.
Forest fire protection: A small grass fire occurred along the Hamakua Highway near the Halfway House just outside the park boundary during the month. This was not discovered until it had burned itself out and is therefore classed as non-reportable. About fifty square feet of grassland was burned over and the fire was probably caused by a discarded match or cigarette.

One hundred and six man-days of presuppression training in the use of fire fighting tools was given to CCC enrollees.

The report of the forest fire at Haleakala on March 2 was completed and forwarded to the Regional Director.

Building fire protection: Fire drills were held at the CCC Camp and Volcano House during the month. The regular quarterly fire and sanitation inspection was also made. Individual inspection of quarters by members of the staff was accomplished.

Miscellaneous: It is recommended that the present cement storage room in the park warehouse be used as a locked storage room for condemned property until such time as a suitable locker can be constructed.

Joseph H. Christ,
Chief Ranger.
Memorandum to Superintendent Edward G. Wingate
through office of Chief Ranger J. H. Christ.

Enclosed are monthly travel report, narrative report, information for FFU-1, and Ranger Station and Pakano Observatory 1005-Net1 reports.

Starting with this month I am sending all but one copy for your office of the Ranger Station 1005-Net1. report direct to the Weather Bureau Office in Honolulu in order to avoid your having to send it on from there.

Frank A. Hjort
Acting Ranger in Charge
Memorandum to Superintendent Edward G. Wingate through office of Chief Ranger J. H. Christ.

000 General

010 Introduction

It seems that mother nature intends to dry us up here at Haleakala as she has only given us two scanty rains after a promise of good rains in March. Vegetation on the higher elevations will undoubtedly suffer severe losses while below 7000 ft. fog and dew has helped cut. There was no rain at Pakaacoo Observatory this month. Our water tanks are of course practically empty again.

020 General Weather Conditions

There were 15 clear, 13 partly cloudy, and 2 cloudy days at the Ranger Station. Rain fell on two days to total 0.36 inches. Maximum and Minimum temperatures were 73 and 39 degrees respectively. No frost was seen.

At Pakaacoo Observatory there were 21 clear, 5 partly cloudy, and 4 cloudy days, making it an ideal month to view the crater. 64 degrees was recorded as maximum and 35 as minimum with no frost. As stated above there was no rain.

Trade wind weather was predominate in this section of the Park for the entire month.

200 Maintenance, Improvement and New Construction

220 Improvements

The kitchen stove having been repaired and installed with a better smoke stack in the CCC kitchen the CCC enrollees no longer have to resort to Kula for a bath.

The local telephone company spent several days running down faults in the line to the summit and repaired them with the result that service is now much better than previously.

A substantial clothes line was built at the Ranger Station with salvaged pipe and the wife purchased some time back.
230 New Construction

The Seismograph building was completed the last of this month and is ready for the installation of the instruments. The job took less time than expected and the concrete structure turned out to be a very neat compact building. The building being entirely underground would be an ideal type for a bomb shelter which we hope it will never be used for.

300 Activities of other agencies in the park

310 Public Service Contractors

311 Character of service rendered to the public

The Gand Hotel has failed to locate anyone that will take the job at the concession located at the observatory on the summit so there has been no service to the public there this month.

320 Cooperating governmental agencies

The U. S. Navy Aerological Office at Pearl Harbor this month sent Victor Aycock, Aerologist third class, to take the upper air soundings at the summit. Mr. Aycock and Park Ranger Frank A. Hjort succeeded in breaking the record here by following a balloon for 109 minutes and reaching an altitude of over 73,000 ft above sea level. Air currents at that great altitude were found to be slight and from the east.

400 Flora, Fauna, and natural phenomena

410 Ranger, naturalist and guide service

A brief talk was given by Park Ranger Frank A. Hjort at Pakaano Observatory on April 10 to the 400 boy scouts from outside islands attending the Territorial Boy Scout Camporal on Maui. The subject of the talk was the history of the crater and the life of the silver-sword plant.

500 Use of Park Facilities by the Public

510 Increase or decrease in travel

Travel fell off this month with this travel year to date being behind last years by 9 percent.

On April 10, 109 cars clicked across the counter enroute to the summit. The occasion was the Boy Scout Camporal held on Maui. All the boys wishing to do so were escorted by private cars to the observatory to view the crater.
34 of the older Boy Scouts and Sea Scouts were escorted thru the crater on April 10. They were shown the high spots, such as the bottomless pit, the silverwords etc. They were escorted down the Sliding Sands trail around the crater and out the Halemaum trail.

600 Protection

630 Accidents

A Plymouth Station Wagon driven by John F. Gomez ran off the road in the fog on April 6. Although the car was badly damaged none of the occupants were injured. The accident occurred 9/10 miles above the Park Office in the early morning.

640 Destruction of Predatory Animals

Twenty goats were destroyed in the crater this month. Twelve were billies and eight were nannies.
May 2, 1941

Memorandum for the Superintendent through the Chief Ranger:

Subject: Narrative report for April.

Public contact work for the month consisted of one park tour, four hikes, and one lecture for a total attendance of 150 persons. I also assisted the local school principal in putting on an entertainment for the school and community on the 4th.

Inspections were made of the various construction jobs in progress. Engineering work was accomplished as follows: Observations were made on Polaris preparatory to the establishment of a true meridian in the new seismograph vault at the Observatory and Naturalist building. The Uwekahuna triangulation station was occupied for the purpose of measuring the angle between stations Observatory and Volcano House Flag. Brass plugs have been set in the hallway floor, stairway landing, and vault floor of the Observatory and Naturalist building, to be used when the meridian is brought into this vault. A separate report will be submitted upon the completion of this work. A survey was made of the sample plots marked by Park Naturalist Jagerlund and Mr. Baldwin in the grazing area below Six Tanks. A report will be submitted upon the completion of this work.

The electrical wiring for the welding classroom at the CCC Camp was installed and an estimate prepared for the possible extension of the main power line to serve this classroom. One-half day was spent in Hilo on the 12th. for the purpose of obtaining quotations for various plumbing and electrical supplies.

I assisted in conducting fire fighting instruction for the CCC enrollees, in conducting fire drills at the CCC Camp and Volcano House, and in making the quarterly fire and sanitation inspection at the CCC Camp.
A trip was made to Hulua Pali on the 24th, and the work being done on the Pali trail was found to be satisfactory. No goats were seen.

Faulty fuses in the heat circuit at Quarters #4 were replaced. I wired in another electric range at Quarters #1. A break in line #11 on the floor of Kilauea Crater was repaired. A faulty switch in the power ringer circuit was repaired.

Routine patrol, flag, museum, and switchboard assignments were carried out.

Arthur L. Jess
Park Ranger.
MEMORANDUM FOR THE SUPERINTENDENT THROUGH THE CHIEF RANGER:

By ranger’s report for the month of April, 1941, follows:

Contacts

April 5, Tour for Hawaii Homemakers, 130 for 3½ hrs. (Tess Assisting)
" 6, " Waikaa Eki Japanese School, 40 for 3 hrs.
" 7, " Honganji Japanese School, 20 for 1½ hrs.
" 9, " Waipahu High School, 28 for 2 hrs.
" 12, " Inter Island Tourists, 9 for 1½ hrs.
" 14, Hike for Bird Park nature group, 22 for 1½ hrs.
" 14, Tour for Mr. and Mrs. Lindgren, National Commander of the American Legion Auxiliary and party, 13 for 4 hrs.
April 16, Tour for KMC, 30 for 2½ hrs.

Nursery

Nine koe and 3 naumani were planted out. The following cuttings were planted in tins: 5 aalii and 31 mamake. The following seeds were planted: 50 papala kepu, 160 salii, 75 wiliwili, 200 kauila, 18 uhiuhi, and 200 lama. The following plants were transplanted, flat to tins: 6 mamake, 30 naio, 9 mauulaili, 1 ohia and 1 pawale.

Miscellaneous

Annual leave was taken from April 21 to 30 inclusive.

Some improvements were made on the badminton and shooting range in spare time.

Some work was done at the nursery in addition to routine plantings.

A trip was made to Kamehameha at the seacoast with Mr. Christ and Mr. Finch. Three goats were killed.

Daily waterings of the nursery stock was continued during the annual leave period.

Regular turn was taken at the regular ranger assignments including flag, 24-hour duty, night patrol, traffic count, switchboard, museum, etc.

Wildlife

A large lo was seen flying at the Halfway House on April 1st.

On April 3 and several times since, 3 birds which resemble grouse to
to some extent but probably are immature pheasants, were seen near the Cut-off Road on the Kilauea Rim Road. Plumage description; body, brown, mottled and barred with darker brown. Feet and legs, black. Beak black and hooked similar to pheasant. Reddish brown ring near-base of neck. A bluish iridescent was noted to the side of the head of at least one. The flight was heavy, similar to pheasant. Length of bird, about 18 inches. Tall short and upturned. This was the feature which made them look like grouse. Birds were quite tame.

Gunder E. Olson,
Park Ranger.
Memorandum to the Superintendent through the office of Chief Ranger

Subject: Narrative report for April

Routine Duties My activities for the month consisted of regular assignments at switch board, patrolling, night check, flag duty, museum duty etc.

Miscellaneous Duties These activities included- patrolling fences, taking care of the nursery in the absence of Ranger in charge, constructing and erecting barricades at earth-quake cracks on Chain of Craters Road, supervising CCC enrollees grubbing out exotic plants, drafting in the Ranger's office, removing two swarms of bees at the Davis cottage in the 29 mile area, hunting goats (5 destroyed), painting miscellaneous signs and replacing old trail and highway markers, etc.

Public Contacts

April 5th Japanese School - Park Tour 2 busses - 34 people
6 Kohala Girl Reserve-Kiluea Iki Hike - 22
7 Hilo Jap. Church- Chain of Craters Tour-1 Bus - 18
Bird Park Hike 4 cars - 63
Mauna Iki Hike 2 busses - 19
NE "Krakatoa" and lecture 128
8 Honolulu Soft Ball Team-Park Tour- 8 cars - 36
9 Hilo Loa Tour 2 cars - 11
10 EM "Krakatoa" and lecture - 96
11 Museum Duty Visitors - 137
12 Mt View Sunday School (1940 eruption movies) - 64
13 EM "Krakatoa" and lecture - 76
14 EM Tour 2 cars, 1 bus - 15
15 Mauna Iki Hike 2 busses, 1 car - 22
16 Inter Island Tour- 2 cars - 6
17 Hilo Girl Scouts Steaming Huffer Trail Hike - 38
18 Museum Duty Visitors - 107
19 Pohala Intermediate School-1940 movies & lecture - 28
20 EM TOUR 1 bus, 3 cars - 32

Total 916

Outside Activities Attended two classes of photography, two meetings of the Toastmasters Club in Hilo and took active part, one meeting of the Journal Club and read one paper on "Hawaiian Kahunans". Also, I have continued the study on Hawaiian Lore and Mythology.

Respectfully submitted,

Charles W. Miller
Park Ranger
MEMORANDUM FOR THE SUPERINTENDENT,
THROUGH THE CAMP DIRECTOR.

SUBJECT: MONTHLY REPORT ON BIRD CONSERVATION WORK FOR APRIL 1941.

Census

Regular counts were taken on established census plots. Office work on this project included computing average number of individuals per 10 acres of the various species for different habitat types in the park. The figures were based on a total of 140 counts on 20 census plots made from May 1940 to April 1941. Analysis of the data will contribute information concerning habitat preferences and seasonal movements of the various species. Correlative environmental data were gathered by continuation of the Ohia bloom census.

Life History

Observations were continued on banded individuals in Kipuka Kulalio for information concerning nesting of native forest birds.

Trips to the Pit Craters in the Kau Desert, nesting habitat of the Koa (White-tailed Tropic Bird) revealed one and possibly two pairs of these large birds nesting at this time. In the case of the pair observed a parent was incubating from April 8 through April 23. The nest was in a recess in the crater wall about 15 feet below the top of the upper wall.

A return trip was made to the inlet at Kaalualu reported upon in my monthly report for February 1941. The purpose of the trip was to determine at what times of day the shore birds were most abundant, as variations in their numbers had been noticed on February 3 at different hours, and to see if the birds roosted there at night.
The following table summarizes the observations made on the two trips.

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<th>Date</th>
<th>Hour</th>
<th>Tide</th>
<th>Kolea</th>
<th>Akekoke</th>
<th>Ulili</th>
<th>Total</th>
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A glance at the figures shows that the birds are concentrated at the feeding grounds on the rock flats in the tide zone at lowest tide. The birds arrive before the lowest tide and remain until the tide has flowed in a moderate amount. The time of daily concentration in numbers, then, depends upon the tide. At low tide the birds are present in large numbers, but at high tide they have left for the pastures at higher elevations.

It was clear from observations made that the Kolea (Pacific Golden Plover) were not roosting at the Kaalualu shore line but evidently up on the slopes of the island. Two or three flocks of Ulili (Wandering Tattler) of from five to 15 individuals were seen at dusk, though they were invariably seen singly or in pairs during the day. Where the ulili roosted was not ascertained. A proportionately
greater number of Kolea left Kaalualu for upland feeding than Akekeke (Ruddy Turnstones).

Kaalualu is the most favorable locality for shore birds in the general region. There is no place so favorable on the shoreline of the national park or in all probability on the entire island. While nearly 500 birds in several hundred square yards is an amazing number of Kolea to be seen in these days, in former times the numbers were far greater. Territorial legislation has provided for complete protection for these birds, but the presence of shells at Kaalualu indicated that poaching is going on there because of inadequate means of law enforcement under present conditions. The matter is mentioned here so that if the chance should arise at any future time for the park service to acquire or establish protection over localities of bird concentration along the shore, Kaalualu could be given first consideration.

Food habits: Parasites and diseases

One collection was made for food habit analysis. Correspondence was carried on with Mr. J. E. Shelling about Hawaiian bird parasites.

Reconnaissance

In connection with matters mentioned above, the following places were visited: Pit Craters, Kamakaia Hills, Kaalualu.

Miscellaneous

Talks were given to 90 school children at Pepeekea school on April 1.

Field work on the project to determine the effects of cattle grazing on Koa groves in the national park was completed, and the first draft of the report was written.

Respectfully submitted,

Paul H. Baldwin
Senior Foreman (Wildlife) CCC
### DISTRIBUTION OF WORK ON PROJECTS BY DAYS

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<th>Date</th>
<th>Census</th>
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<th>Food history &amp; habits</th>
<th>Parasites &amp; diseases</th>
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<td>Sat. 19</td>
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<td>Sun. 20</td>
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<td>Sat. 26</td>
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<td>Sun. 27</td>
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<td>8</td>
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<td>30</td>
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<td>8</td>
</tr>
</tbody>
</table>
Memorandum for the Superintendent

Subject: Foreman's monthly report on activities of Maintenance Division during month of April, 1941.

Routine maintenance work such as road-side clean-up, sanitation, garbage disposal, kerosene delivery, pumping water and wood delivery were carried out during the month.

103. Completed crating and shipping of H. H. Waesche's furniture.

104. Built and installed cage to protect silver sword at Devil's Throat.

201. Repaired door at Qtrs. #16.
201a. Repaired two screens at Qtrs. #22.
201b. Repaired plumbing at University Building.

202. Repaired old Bird Park Road.
202a. Repaired parking area at Volcano House.
202b. Hauled rock to stabilize shoulders in steam flat.
202c. Painted stripes on Halemaumau Crater Rim Road. (Lava Tube)
202d. Painted stripes on Section 3A. Mamalahoa Highway.

206. Repaired hole in trail at Halemaumau.

207. Lawns were cut once during month.
207a. Cleared home garden space at Qtrs. #22.
207b. Hauled 24 loads of dirt to the different parties wanting new soil for their gardens.

211. Repaired under-plumbing on water tank at warehouse.
211a. Repaired broken water line at Qtrs. #19.

Note: Items under 210 and 226 are described in first paragraph of reports.

Mechanic Fujimoto sends in a separate monthly work report to Chief Clerk Higashida and his work is not included in this report.

Respectfully submitted,

[Signature]

Foreman of Forest. & Main.
MEMORANDUM FOR THE SUPERINTENDENT:

Report of Hawaiian Volcano Observatory for the month of April.

There was no visible activity at the Hawaiian volcanoes during April. A glow was reported over the northeast slope of Mauna Loa the evening of April 1st. It is doubtful if it was of volcanic origin as the moon set at about the time and in the direction of the reported light.

There were a few rock slides from the walls of Halemaumau. A slide accompanied the moderate earthquake of April 20. A series of shakes occurred on this day the origins of which centered at Kilauea. The moderate shake of April 20 was widely felt over the southern half of the island of Hawaii. There was another series of Kilauea shakes on April 25, 26 and 27.

The seasonal southwesterly tilt appeared to cease during the last week of April. The southwest tilt for 1941 was much less than normal. There has been an accumulation of 17 seconds of northeasterly tilt since 1939 indicating a slow building up of volcanic pressure since that year.

The following table shows some of the quantitative data obtained during April:

<table>
<thead>
<tr>
<th>Week Ended</th>
<th>Tilt</th>
<th>Crack Movement</th>
<th>Seismic Disturbances</th>
<th>Seismicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apr. 6</td>
<td>Mod. NW</td>
<td>2.0 mm. closing</td>
<td>13</td>
<td>4.0</td>
</tr>
<tr>
<td>13</td>
<td>Slight SSW</td>
<td>2.0 &quot; opening</td>
<td>9</td>
<td>2.25</td>
</tr>
<tr>
<td>20</td>
<td>Mod. SW by 3 0.5 &quot;</td>
<td>&quot;</td>
<td>37</td>
<td>15</td>
</tr>
<tr>
<td>27</td>
<td>Mod. E</td>
<td>0.5 &quot; closing</td>
<td>49</td>
<td>15.50</td>
</tr>
</tbody>
</table>

Work of R.H. Finch

Considerable time was spent on making arrangements for the CCC, the individual and community gardens. Dr. Louise Kingsley, Professor of Geology at Wellesley College was at the Observatory and taken on two field trips in the Park. The second meeting of the Journal Club was held on April 24, with papers reviewed by Meserve, Miller, Schulz and Finch. An article on Filling of Kilauea Crater for the Volcano Letter was nearly completed.
Work of H.H. Waesche

H.H. Waesche left for Grand Canyon National Park on April 2nd. On April 1st, he worked on material for the Volcano Letter.

Work of P.E. Schulz

Upon the departure of H.H. Waesche, Mr. P.E. Schulz entered upon the duties of seismologist at the Hawaiian Volcano Observatory. A large part of the seismologist's time is taken up with reading seismograms, plotting tilt and keeping records up to date. Mr. Schulz finished the quarterly seismological report which was about 90% completed by H. H. Waesche. With Mr. Loucks, he made gas collections at Sulphur Bank. He assisted Naturalist Fagerlund by giving 4 lectures at the Museum and at the Kilauea Military Camp.

Work of B.J. Loucks

In addition to the daily care of seismographs, Mr. Loucks' time was spent as follows:

<table>
<thead>
<tr>
<th>Date</th>
<th>Activity</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apr. 1</td>
<td>Repaired the drum shaft on Mauna Loa seismograph</td>
<td>2/7</td>
</tr>
<tr>
<td>3</td>
<td>Repaired the movie projector for Mr. Fagerlund</td>
<td>3/9</td>
</tr>
<tr>
<td>4</td>
<td>Collected gas samples</td>
<td>2/7</td>
</tr>
<tr>
<td>5</td>
<td>Made scale diagram for new shop</td>
<td>5/9</td>
</tr>
<tr>
<td>7-28</td>
<td>Worked on new tilt meter</td>
<td>6/2</td>
</tr>
<tr>
<td>12</td>
<td>Repaired clock for pit seismograph</td>
<td>2/9</td>
</tr>
<tr>
<td>17</td>
<td>Turned out brass plugs for Ranger Jess</td>
<td>1/9</td>
</tr>
<tr>
<td>20</td>
<td>Special trip to Mauna Loa seismograph because of earthquake</td>
<td>3/9</td>
</tr>
</tbody>
</table>

R. H. Finch
Volcanologist
UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

HAWAII NATIONAL PARK

FILE NO.

MONTHLY REPORT
MARCH 1941

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.
MEMORANDUM for the Director

There follows the narrative report of activities in Hawaii National Park for the month of March, 1941.

O0O General

O10 - Introduction

Work in the park while heavy, partly because some staff members were absent on annual leaves, was largely routine in character. Light and moderate rains beginning early in the month broke the severe drought which had necessitated closing the Hilo public schools for a few days, though the CCC Camp had to continue hauling water from Ohau, a distance of 20 miles one way, until late in the month.

Following correspondence and conferences with army officials by the Washington Office and locally relative to army use of certain sites at Hakalola, the CCC Camp at Hakalola was directed to clean up all work in progress and be prepared to abandon the camp. Enrollees and supervisory personnel will be transferred to the Kiluaea Headquarters where they are badly needed. Even should the army not make use of the stub camp site, the water supply would be wholly inadequate to supply both army and CCC organizations.

Some relief of the low enrollment in the park and territorial CCC camps is expected from Washington approval of the recommendation through Field Supervisor R. A. Frosonen by the Honolulu Council of Social Agencies that the minimum enrollment age limit be lowered to 16 years. In any event it is a desirable move from the social welfare standpoint.

The possibility of an emergency in the next year which would isolate Hawaii and cause a food shortage is being given earnest study by local federal, territorial, business, and civic organizations. Shortage of shipping, already being experienced to a small extent, alone would cause considerable hardship since the bulk of Hawaii's food stuffs must be imported. Means of supplying some of the needs of the park community is being given study.

Fourteen members of the staff and local residents all members of
the Emergency Police Guard Unit completed a standard Red Cross First Aid course given by Capt. John Cullen, Medical Officer at the Kilauea Military Camp. Most of the staff had already received their certificates.

The CCC in the park celebrated the 6th (7th in Hawaii) anniversary of the organization with a field day of sports and a luncheon for the enrollees, their families and friends, and park personnel on March 23. This day was selected in order that three enrollees who had volunteered under the Selective Service and Training Act might participate before reporting for induction on March 24.

Park personnel were saddened by news of the death on March 11, after a protracted illness, of Mrs. Alice Woods. For many years she had been employed by the Volcano Research Association to operate the Volcano Observatory seismograph station on the west side of this island and more lately by the park as a part-time minor observer. Mrs. Woods was one of a rapidly decreasing number of kamaaina residents whose charm, tolerance, and kindly hospitality cannot be excelled.

Army orders for Dr. H. A. Powers, Ranger-in-Charge of the Haleakala section, to report for army service in March were altered to have him report for duty April 1.

020 - General Weather Conditions

As reported above, the severe drought was broken during the month. Light rains began falling on the 4th at park headquarters, though it was not until the 17th that any moderate amount fell. Total precipitation for the month at Kilauea was 7.18"; at Haleakala Ranger Station 3.62" all after the 15th; and at Haleakalā Summit 1.39" also after the 15th. Maximum and minimum temperatures for the month were, at Kilauea 70° and 44° at Haleakalā Ranger Station 65° and 37°; at Haleakalā Summit 61° and 28°. There was killing frost at Haleakala down to 6000 feet on the 13th and at higher elevations on the 17th.

100 - Administration

110 - Superintendent's Special Activities

The superintendent returned to the park on March 1, after an absence of almost two months while attending the Park Superintendents' Conference in Washington. Up until the middle of the month he was occupied principally in field inspections covering the larger part of the Kilauea and lower Wāna Loa Sections. The latter part of the month was spent in the office. Considerable of his spare time was given to work as Chairman of the Fumo District Local Board Selective Service in preparation for the
second call of selectees on March 24, at which time he was the principal speaker. Together with Mr. Moomaw, assistant to the superintendent, as members of the Executive Committee Kilauea Council B.S.A., to which Mr. Moomaw had been recently elected, he attended the regular monthly business meeting on the 18th and as a member of a similar committee for the Y.N.C.A. he attended the annual dinner on the 25th. Also on the 25th as a member of the Agricultural Advisory Council for the Island of Hawaii he made an inspection tour of home and farm projects in the Kau and Hilo districts with Council members and Extension Service personnel.

Assistant to the Superintendent

Mr. Moomaw was occupied in the park office most of the month, though he made frequent inspections of CCC work on the Volcano Observatory and Naturalist Building and Road Jobs at the new hotel site. In the office besides routine work he was busy preparing a detailed report on the park requested by the Territorial Planning Board in connection with the Park, Parkway and Recreational Area Survey and some time was given to reviewing material for the Master Plan revision. On the 6th, he attended the monthly meeting of the Hawaii Traffic Safety Commission and on the 27th and 31st he was in Hilo on business as President, Hilo Federal Businessmen's Association.

160 - General Publicity

Local papers continued to give good publicity to the construction of a new Volcano House. The Honolulu Advertiser on March 5, made favorable editorial comment on the bulletin "CHECK LIST OF THE BIRDS OF HAWAII NATIONAL PARK, KILAUEA-MAUNA LOA SECTION, WITH REMARKS ON THEIR PRESENT STATUS AND A FIELD KEY FOR THEIR IDENTIFICATION" prepared by CCC Senior Foreman (Wildlife) Paul Baldwin.

200 - Maintenance, New Construction and Improvements

220 - New Construction

The park force account crew completed construction of the new bunkers at the rock quarry and installed the crusher which is now in operation.

230 - Special Improvement Activities

Enrollors strength continued low, but relatively stable, throughout the month with 147 boys in camp at Kilauea and Haleakula on the 1st and 143 on the 31st. Washington approval of the recommendation submitted through Field Supervisor Parsons by the Honolulu Council of Social Agencies to permit enrollment of boys in the 16 year age class should result in some increase in camp strength and in any event is a very desirable
There were 15 new enrollments in the month and 19 discharges, of which 3 honorable were given to enrollees who had volunteered under the Selective Service Act, 3 were discharges for desertion and the balance for expiration of term of service.

There were no lost time accidents and only 19 man days lost from medical causes largely due to one boy losing 13 days because of a rather serious arm infection caused by a cut from a tree fern frond. The Camp Surgeons' reports showed satisfaction with the condition of both camps and general health of the enrollees.

The recreational highlight of the month was the Field Day on March 23, held jointly with the Territory of Hawaii Panama CCC Camp in celebration of the 9th Anniversary of the CCC. Numerous athletic events occupied both the morning and afternoon between which the enrollees, their families and friends, camp, and park personnel enjoyed a very fine Hawaiian luau. The CCC Anniversary was celebrated on March 23, in order that the 3 enrollees volunteers, who were to be inducted on the 24th, might be present. There were two church services during the month and two safety meetings held at Kilaeua and one at Haleakala.

A meeting on March 19, with Mr. Eugene Jordan, Territorial Coordinator for National Defense Training, to formulate plans for vocational training was held in the camp by the Camp Director, Supervisory Personnel, and enrollees. Equipment and instructors will be made available and qualified park employees will also be used as instructors.

Field Supervisor E. A. Paesano visited the camp on March 24th.

At Kilaeua 1074 man days were used on work projects and at Haleakala 450. Of the total, 1011 days were used on the Volcano Observatory and Naturalist Building, Job No. 54, which is progressing slowly due to inexperience of the enrollees. However, the work accomplished is of good quality in which it compares favorably with similar work done locally by older and more experienced workmen. The job was 40% complete at the end of the month. 388 man days were used on Jobs Nos. 63, 64, 73, and 74. Minor Road and Parking Area connected with new Volcano House development and cesspools at Volcano House and new Observatory building. The remaining man days were used on Operation of the Incinerator, Landscape development and maintenance, sign repair, etc. Because of low enrollment it was possible to use only 83 man days on the Kilina Fall Auto Trail which is unfortunate since this road should be completed as soon as possible to facilitate fire protection and the important erosion control and reforestation projects in the Kilina Fall area. These are now completely at a standstill because no men are available.

300 - Activities of other agencies in the park

310 - Park operators

Contractor Isemoto is making excellent progress on the new Volcano
Representative William Payne introduced a Joint Resolution in the territorial legislature memorializing Congress to appropriate funds for the construction of 60 odd miles of proposed road from Hilo to Kona on the west side of Hawaii running between Mauna Kea and Mauna Loa. The road would cost between two and three million dollars and is urged principally as a national defense project, but does not seem to have the full blessing of the army authorities. One reason given for the road was that it would open up vast areas in the interior of the island having national park and recreational possibilities. The proposed road would pass through or close to the projected addition to the Nauna Loa section of the park.

The East Hawaii delegation in the legislature introduced another Joint resolution concerning this road. It requests the Governor to set aside government lands for the road right-of-way and authorize use of prison labor on its construction. Part of the Hilo press has expressed opposition to this method stating that the County would have to furnish funds for equipment, materials, etc., and that present funds are inadequate to maintain the existing road system.

On February 27, there was introduced in both the Territorial Senate and House bills to establish a Department of Agriculture and Forestry in the Territory with a salaried Commissioner at the head who must be a graduate of an agricultural college. The detailed qualifications for this office cover agricultural subjects only. The importance of technical training in forestry appears entirely neglected. The Department would replace the present Board of Commissioners of Agriculture and Forestry, appointed by the Governor, though a similar board would continue to serve in an advisory capacity. The bill clothes the Commissioner with broad authority and does not fully define the functions or purposes of the Department. A somewhat similar bill was introduced in a previous session but was defeated. Mr. George Hamro, Associate in Ornithology at the Bishop Museum, has expressed strong opposition to the bill in a letter to the press.

400 - Interpretation

A total of 26 lectures were given with estimated 1060 persons in attendance. Of the total, 8 were given outside the park, 6 at the Hilo High School, 1 on a U.S. Navy destroyer, and 1 at the Y.W.C.A. The park rangers assisted the Naturalist by conducting auto caravans, foot tours and in lecturing. There were 15 auto caravans and 8 hiking trips with an attendance of 535 persons. Unattended exhibits were estimated to have been visited by 13,750 persons and contacts were made with two-thirds of the park visitors.
420 - Museum activities

The Tweakahuna museum was open daily throughout the month. Painting of the Hawaii island relief map was 90% complete at the end of the month. There were 1477 visitors to the museum.

430 - Research and observation

431 - Botany

Work was started on an ecological survey to determine the effects of cattle grazing on native vegetation on the lower Mauma Loa slopes where the area was subjected to grazing until six months ago.

432 - Zoology

CCC Senior Foreman Wildlife Paul Baldwin continued work on various aspects of his study to determine the causes of the decline of certain native birds. Regular census counts were taken at established plots in various habitat types in the park. Trapping and banding were carried on for life history studies and nestling observations made of five species. A few individuals were collected for parasite and disease, food habits, and reproductive cycle studies. Stomach analyses were made. Specimens of internal parasites of native birds were collected. Outlying portions of the park were visited to check on seasonal movements and on environmental conditions.

433 - Geology

A change in title from the ambiguous word "Scientist" to the more exact one of "Volcanologist" for the position of Mr. Huy Finch at the Volcano Observatory was approved.

The Hawaiian volcanoes continued quiet throughout the month. A party of visitors conducted by Ranger Schals reported the 1940 cone in Kilauea volcano, without any perceptible lessening in volume. Seasonal southwesterly ground tilt at the Kilauea Observatory was resumed after March 23, following a period of unusual northerly tilting, the cause of which was masked because of heavy building operations at the adjacent Volcano House site. Measurements of rim cracks about Halemaumau showed a net opening for the month but there was little avalanching from the walls of the pit.

Some minor changes in the new Observatory building recommended by the Volcanologist were approved by the Superintendent.

A Journal Club, recommended by the Volcanologist, formed for the purpose of keeping staff members abreast of scientific developments elsewhere held its first meeting on March 27. The entire Ranger Staff,
the Park Naturalist and Observatory personnel attended.

Assistant Geologist Hugh Veesche prepared an article on Ground Tilt at Kilauea for publication.

500 - Use of Park Facilities by the Public

510 - Increase or decrease in travel

At Kilauea there were an estimated 23,034 visitors compared to 24,951 for the same month last year. Total for the year to date shows an increase from 88,809 to 116,724. Haleakala travel showed an increase for the month with a total of 1710 visitors compared to 1285 for the same period last year, though for the year Haleakala travel has experienced a 10% decrease.

520 - Visitors

There were no visitors of especial importance during the month.

Six visitor groups were given attention as follows:

<table>
<thead>
<tr>
<th>Name of Organization</th>
<th>No. of Visitors</th>
</tr>
</thead>
<tbody>
<tr>
<td>U.S. Navy personnel from the USS Hopkins</td>
<td>105</td>
</tr>
<tr>
<td>Laupahoehoe High School</td>
<td>39</td>
</tr>
<tr>
<td>Pahoa Boy Scouts</td>
<td>14</td>
</tr>
<tr>
<td>Kohala High School</td>
<td>20</td>
</tr>
<tr>
<td>Hilo Japanese Church</td>
<td>125</td>
</tr>
<tr>
<td>Hilo Girl Reserve</td>
<td>20</td>
</tr>
</tbody>
</table>

600 - Protection

610 - Ranger Service

Patrols were made along the west boundary in the Mauna Loa and sea-coast areas, to the summit of Mauna Loa, Kepau Crater, and along the sea-coast in the lands of Aupa and Kohua, also the usual night patrols.

630 - Wildlife protection

At Kilauea 18 goats and 3 pigs were destroyed and at Haleakala 35 goats of which 17 were females. Inspection by the superintendent of the Hilina Pali and Kau desert areas and of Mauna Loa with the park naturalist and wildlife foreman showed that the goat population is on the increase. Serious consideration is being given to determine effective methods of satisfactorily controlling or completely eliminating the remaining goats. It was necessary for the rangers to place screens around 35 seeding trees recently planted in the Hilina Pali area to protect them from browsing by the goats.
640 - Forest fire protection

One class B fire burned .7 acre of brushland in the Haleakala section on March 2. Cause, CCC enrollee allowing small fire by which he was warming himself to escape.

650 - Building fire protection

One fire drill and instruction in fire prevention was held at the Volcano House during the month.

660 - Accidents

The park safety committee held one meeting during the month.

900 - Miscellaneous

Mr. Gordon Scruton, Executive Secretary of the Hilo Chamber of Commerce for the past ten years, now on duty with Hawaii National Guard, resigned to accept a position with a Honolulu business firm. Mr. Robert Noir who has been Acting Secretary since Mr. Scruton was called to duty was appointed to fill the position.

Park Mechanic Chiento Fujimoto spent two weeks annual leave in Honolulu studying auto mechanics at firms there.

Ranger Gordon Olsen completed a course of 16 lessons in Hawaiian conducted by U. S. Commissioner Joseph Akau at the Lyman House Memorial in Hilo.

The Board of Survey held two meetings and continued work on the inventory.

Edward G. Wingate
Superintendent
1. Construction of New Volcano House - Entrance Side

2. Driveway to Volcano House, Job #529. CCC Job 63
3. New Stone Bunkers at Park Rock Crusher Job #529

4. Aalii reproduction coming in thickly under Koa
   Kipuka Kulali, Mauna Loa slopes
   Elevation about 8,500'
3. "Hameni seedling growing through pukësawa clump; being thus protected from goat and cattle browsing. Kipuka Maunau, Mauna Loa slopes. Elevation about 6,000 ft."

UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

TRAVEL REPORT

---Kilauea Section, Hawaii--- National Park for the month of March, 1941

<table>
<thead>
<tr>
<th></th>
<th>This Month</th>
<th>This Year</th>
<th>This Month</th>
<th>Last Year</th>
<th>Increase or Decrease for Year</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>To Date</td>
<td>To Date</td>
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<tr>
<td><strong>PRIVATE TRANSPORTATION:</strong></td>
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<tr>
<td>Cars first entry</td>
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<tr>
<td>Cars reentry</td>
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<tr>
<td>Motorcycles</td>
<td></td>
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<tr>
<td><strong>Total motor vehicles</strong></td>
<td>23,034</td>
<td>116,724</td>
<td>24,951</td>
<td>88,809</td>
<td>27,915</td>
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<tr>
<td>Persons entering via motor vehicles</td>
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<tr>
<td><strong>OTHER TRANSPORTATION:</strong></td>
<td>23,034</td>
<td>116,724</td>
<td>24,951</td>
<td>88,809</td>
<td>27,915</td>
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<tr>
<td>Persons entering via stages</td>
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<tr>
<td>Persons entering via trains</td>
<td></td>
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<tr>
<td>Persons entering otherwise</td>
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<tr>
<td><strong>Total other transportation</strong></td>
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<tr>
<td><strong>GRAND TOTAL ALL VISITORS</strong></td>
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<table>
<thead>
<tr>
<th></th>
<th>This Year</th>
<th>Last Year</th>
<th>Increase</th>
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<tr>
<td></td>
<td>Number</td>
<td>Percent</td>
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</tr>
</tbody>
</table>

Automobiles in public camps during month
Camper in public camps during month
## Travel Report

**Kalaupapa Section, Hawaii** National Park for the month of March 1941

### Private Transportation:

<table>
<thead>
<tr>
<th></th>
<th>This Month</th>
<th>This Travel Year To Date</th>
<th>Last Travel Year To Date</th>
<th>Increase for Travel Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cars first entry</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cars reentry</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Motorcycles</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total motor vehicles</td>
<td></td>
<td>342</td>
<td>257</td>
<td>213</td>
</tr>
<tr>
<td>Persons entering via motor vehicles</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Persons entering via other private transportation</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total persons entering via private transportation</td>
<td>1710</td>
<td>9800</td>
<td>1285</td>
<td>10665</td>
</tr>
</tbody>
</table>

### Other Transportation:

|                     | | | | |
|---------------------| | | | |
| Persons entering via stages | | | | |
| Persons entering via trains | | | | |
| Persons entering otherwise | | | | |
| Total other transportation | | | | |

### Grand Total All Visitors

<table>
<thead>
<tr>
<th></th>
<th>This Year</th>
<th>Last Year</th>
<th>Increase Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1710</td>
<td>9800</td>
<td>1285</td>
<td>10665</td>
<td>1066</td>
</tr>
</tbody>
</table>

### Additional Information:

<table>
<thead>
<tr>
<th></th>
<th>This</th>
<th>Last</th>
<th>Increase Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Automobiles in public camps during month</td>
<td>7</td>
<td></td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>Campers in public camps during month</td>
<td>4</td>
<td>3</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
MEMORANDUM for the Superintendent

Monthly Report March, 1941

000 General

100 Introduction: The month was an exceedingly busy one with the writer in the office almost continually. However, several business trips were made to Hilo, as well as an occasional field inspection. The office work was almost entirely routine, the exceptions being assistance rendered the Territorial Planning Board on the Park, Parkway and Recreational Area Study as it applies to the park, and checking the master plan prior to submitting it to Region IV.

100 Administration

110 Special Activities consisted of the following trips to Hilo:

- March 1st A.M. to meet Superintendent Wingate on his return from the mainland.
- March 6th P.M. Attended the monthly meeting of the Hawaii County Traffic Safety Commission.
- March 17th P.M. Attended luncheon meeting of the Kilauea Council, Boy Scouts of America.

200 Maintenance, New Construction and Improvements

220 New Construction

All jobs in progress are advancing satisfactorily with those in the immediate vicinity of Headquarters changing the appearance of the landscape very much for the better.

300 Activities of Other Agencies in the Park

310 Park Operators – The new Volcano House construction is advancing very rapidly with foundations and framing for the first floor com-
plate at the end of the month.

**500 Use of Park Facilities by the Public**

**520 Visitors**

March 5 - 6th Mr. and Mrs. S. C. Brainard, Mrs. Gertrude Schlossia, and Mrs. Derby of Estes Park, Colorado. All of these people are very well acquainted with the Rocky Mountain National Park Staff.

**900 Miscellaneous**

The Park Safety Committee held its regular meeting on the 14th. Fourteen members of the local community and park staff completed a Red Cross First Aid Course given by Capt. John K. Cullen of the Kilauea Military Camp on the evening of the 21st.

B. F. Moomaw, Jr.
Assistant to the Superintendent

Dawson J. E.

Parties

R. J. Stinton

A. J. Moon

J. L. Harris
MEMORANDUM FOR THE SUPERINTENDENT:

Report of Hawaiian Volcano Observatory for the month of March.

Hawaiian volcanoes continued quiet during the month of March. A party ascended Mauna Loa on March 24 and noted no apparent diminution in the fuming at the 1940 cone. Seasonal SW tilt was resumed during the week ended March 23 after unusual northerly tilt during most of the earlier part of March. Uncertainty in regard to the northerly tilt on account of building operations nearby precludes making any statement as to probable volcanic activity. While crack measurements showed a net opening for the month, the walls of Halemaumau were rather free from landslides.

The following table shows some of the quantitative data obtained during March:

<table>
<thead>
<tr>
<th>Week Ended</th>
<th>Tilt Movement</th>
<th>Crack Movement</th>
<th>Seismicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mar. 2</td>
<td>Mod. NE by E</td>
<td>2.0 mm. opening</td>
<td>7</td>
</tr>
<tr>
<td>9</td>
<td>Strong NNW</td>
<td>6.5 &quot; &quot;</td>
<td>7</td>
</tr>
<tr>
<td>16</td>
<td>Strong NNW</td>
<td>1.5 &quot; &quot;</td>
<td>5</td>
</tr>
<tr>
<td>23</td>
<td>Strong SSW</td>
<td>0.5 &quot; &quot;</td>
<td>7</td>
</tr>
<tr>
<td>30</td>
<td>Mod. SW by W</td>
<td>5.0 &quot; &quot;</td>
<td>11</td>
</tr>
</tbody>
</table>

Work of R. H. Finch

Progress on the Observatory-Naturalist building was watched. One detail that, if retained, would have greatly impaired the shop, was called to the attention of Superintendent Wingate and he immediately ordered a change. Considerable time was spent in complying with requests for publications of the Observatory. Part of March 4th was spent at the County Engineer's office in Hilo in order to use some of their equipment. The first meeting of the Journal Club of the Hawaii National Park was held during the evening of March 27. The entire ranger staff, the Naturalist, and members of the Observatory were present.
Work of H. H. Waesche

Most of Mr. Waesche's time was taken up in the routine reading of seismograms, plotting tilt, preparing weekly press reports, measuring cracks etc. In addition, Mr. Waesche prepared an article on Ground Tilt at Kilauea Volcano for publication.

Work of F.E. Schulz

Ranger Schulz's duties at the Observatory during the month of March included the following:
- Assisted in compiling weather report.
- Worked on seismograms.
- Computed and plotted weekly seismicity.
- Plotted crack changes, January to February, the pit tilt for W and SE stations for Feb. and March, and daily time corrections.
- Wrote seismological portion of weekly press report.
- Turned Kilauea Crater angles with transit, computed and plotted results.
- Located Kilauea quakes for January.
- Checked J.S.A. records with the Observatory telesseisms for Nov. and Dec. 1940.

Work of B. J. Loucks

Some of Mr. Loucks' special duties during March were:

<table>
<thead>
<tr>
<th>Date</th>
<th>Activity</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mar. 1</td>
<td>Worked on chemistry laboratory scales</td>
<td>1 1/2</td>
</tr>
<tr>
<td>2</td>
<td>Developed plans for new shop</td>
<td>5</td>
</tr>
<tr>
<td>4-5</td>
<td>Worked on tilt meter (Eller type)</td>
<td>9</td>
</tr>
<tr>
<td>6-7</td>
<td>Worked on camera for Mr. Fagerlund</td>
<td>7</td>
</tr>
<tr>
<td>10-13</td>
<td>Worked on clocks for seismographs</td>
<td>26</td>
</tr>
<tr>
<td>18</td>
<td>Worked on rock crusher (key way in shaft)</td>
<td>2</td>
</tr>
<tr>
<td>19-21</td>
<td>Worked on seismograph clocks</td>
<td>1 1/2</td>
</tr>
<tr>
<td>24</td>
<td>Worked on rifle sights for Ranger Olsen</td>
<td>2</td>
</tr>
<tr>
<td>25</td>
<td>Worked on flexible tape for Ranger Christ</td>
<td>2</td>
</tr>
<tr>
<td>25-28</td>
<td>Worked on seismograph clocks</td>
<td>14</td>
</tr>
<tr>
<td>29</td>
<td>Worked on face plate for Mr. Quick</td>
<td>6 1/2</td>
</tr>
</tbody>
</table>

R.H. F inch
Principal Scientist
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<td>3</td>
</tr>
<tr>
<td>9</td>
<td>Strong NNE</td>
<td>6.5 &quot; &quot;</td>
<td>7</td>
<td>2.75</td>
</tr>
<tr>
<td>16</td>
<td>Strong NW</td>
<td>1.5 &quot; &quot;</td>
<td>5</td>
<td>1.50</td>
</tr>
<tr>
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<td>Strong SSW</td>
<td>0.5 &quot; &quot;</td>
<td>7</td>
<td>2.00</td>
</tr>
<tr>
<td>30</td>
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<td>11</td>
<td>4.25</td>
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2  Developed plans for new shop 5
4.5    Worked on tilt meter (Eller type) 9
6-7    Worked on camera for Mr. Fagerlund 7
10-18   Worked on clocks for seismographs 26
18    Worked on rock crusher (key way in shaft) 2
19-21   Worked on seismograph clocks 12
24    Worked on rifle sights for Ranger Olsen 32
25    Worked on flexible tape for Ranger Christ 2
28-29   Worked on seismograph clocks 14
29    Worked on face plate for Mr. Quick 51

R.H. F inch
Principal Scientist
UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
HAWAII NATIONAL PARK
HAWAII

OFFICE OF THE SUPERINTENDENT

April 5, 1941

MEMORANDUM FOR THE DIRECTOR:

There is attached the monthly report of interpretive activities for March 1941 and a program of activities for April.

Edward G. Wingate,
Superintendent

By:

Gunnar O. Fagerland
Asst. Park Naturalist.
With three-fourths-time help of Ranger Schulz for the past three months it has been possible to work on projects outside the routine interpretive program. Unfortunately this assistance ends with March at least for some time. The continuous and full-time help of at least one man is urgently needed if the interpretive work is to be properly handled by the interpretive staff. If an adequate amount of research (other than volcanology) is to be done two assistants are needed. In this connection seasonal ranger naturalists would benefit our program more than seasonal rangers, since it is the interpretive work that increases and not the protective work.

The Park Naturalist attended two meetings of the Kilo Toastmasters Club. Two conferences with the Superintendent and Wildlife Foreman Baldwin were held to discuss a project to study the effects of grazing on native park vegetation.

The following special parties were given service in the Park:

United States Naval officers and sailors: 105
Lanipahoe High School: 39
Pahoa Boy Scouts: 14
Kohala High School: 20
Hilo Japanese Church: 135
Hilo Girl Reserves: 20
411 - Statistical report is included.

415 - The following lectures were given outside the parks:
Six illustrated Bird lectures at Hilo High School by Ranger Olson.
One lecture and movie aboard the U.S.S. Hopkins by Park Naturalist.
One lecture and movie on volcanos to Y.W.C.A. by Park Naturalist.

420 - The painting of the Hawaii Island relief model is now about ninety percent complete.

430 - C.O.C. Senior Wildlife Foreman, Paul H. Baldwin continued his environmental studies of birds.

Work was started on an ecological study to determine the effects of cattle grazing on native vegetation in the park area subjected to grazing until six months ago. The field and analytical work is being done by the Park Naturalist and Paul H. Baldwin.

470 - Nine days were spent on photography and activities incidental to it. The negative cataloging project was completed. This project consumed 44 man days.

500 - Use of Park Facilities

Contacts in relation to travel remained about the same as for February. Both travel and contacts are about the same as for same month last year.

Projects planned for April

All time not required for interpretation will be given to the ecological grazing study mentioned above in 430.
MONTHLY STATISTICAL REPORT OF INTERPRETIVE CONTACTS
IN SCENIC OR SCIENTIFIC AREAS
Hawaii National Park

Name of Area

<table>
<thead>
<tr>
<th>Permanent</th>
<th>Technical</th>
<th>Administrative</th>
<th>Other</th>
<th>Rangers</th>
</tr>
</thead>
<tbody>
<tr>
<td>No.</td>
<td>Number of Persons Engaged in Interpretive Activities</td>
<td>March</td>
<td>Year</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Technical</td>
<td>Administrative</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>One</td>
<td></td>
<td>Four</td>
<td></td>
</tr>
</tbody>
</table>

**CONDUCTED TRIPS**

<table>
<thead>
<tr>
<th>Type</th>
<th>No.</th>
<th>Attend.</th>
<th>Duration*</th>
<th>V.P.H.**</th>
</tr>
</thead>
<tbody>
<tr>
<td>Auto Caravans</td>
<td>15</td>
<td>309</td>
<td>2 hours</td>
<td>618</td>
</tr>
<tr>
<td>Hiking Trips</td>
<td>8</td>
<td>237</td>
<td>3 hours</td>
<td>681</td>
</tr>
<tr>
<td>Raines</td>
<td>23</td>
<td>536</td>
<td>XXXX</td>
<td>1329</td>
</tr>
</tbody>
</table>

*List other types

**LECTURES**

<table>
<thead>
<tr>
<th>Type</th>
<th>No.</th>
<th>Attend.</th>
<th>Duration*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Campfire</td>
<td>15</td>
<td>504</td>
<td>3/4 hour</td>
</tr>
<tr>
<td>Hotel or Lodge</td>
<td>8</td>
<td>345</td>
<td>3/4 hour</td>
</tr>
<tr>
<td>Museum</td>
<td>25</td>
<td>1050</td>
<td>XXXX</td>
</tr>
</tbody>
</table>

**ATTENDED INTERPRETIVE STATIONS & MUSEUMS**

<table>
<thead>
<tr>
<th>Name of Station</th>
<th>List by name and type</th>
<th>1477</th>
<th>1/4 hour</th>
<th>589</th>
</tr>
</thead>
</table>

**UNATTENDED INTERPRETIVE STATIONS**

<table>
<thead>
<tr>
<th>Name of Station</th>
<th>List by name and type</th>
<th>16,825</th>
<th>1/4 hour</th>
<th>389</th>
</tr>
</thead>
</table>

**BROADCASTS**

<table>
<thead>
<tr>
<th>Station</th>
<th>Subject</th>
<th>Total Contacts</th>
<th>Total V.P.H.</th>
<th>Total Visitors</th>
</tr>
</thead>
</table>

MAIL ATTENTION NATURALIST DIVISION, NATIONAL PARK SERVICE, WASHINGTON, D. C., IN TIME TO ARRIVE ON OR BEFORE THE TENTH OF THE MONTH FOLLOWING THE ONE REPORTED ON.

* AVERAGE DURATION OF ACTIVITY.

** THIS COLUMN REPRESENTS VISITOR PARTICIPATION HOURS. THE FIGURE IS OBTAINED BY MULTIPLYING THE VISITOR ATTENDANCE BY THE AVERAGE DURATION OF THE CONTACTS; I.E., THE AVERAGE TIME DEVOTED TO THE TRIP, LECTURE, MUSEUM VISIT, OR USE OF INTERPRETIVE STATIONS.

Name: Omero C. Fagerlund
Title: Asst. Park Naturalist

128997
UNIVERS STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
Hawaii National Park
Hawaii

NATURALIST PROGRAM
APRIL, 1941

Offered free each week to the visiting public.

MONDAY: 9:30 a.m. - KIPUKA PUAULU NATURE WALK - Meet at Kipuka Puaulu (Bird Park) for a delightful easy walk of 1.2 miles round trip.

7:30 p.m. - April 7, 14, 21, 28 "KRAKATOA," the impressive sound film of the eruption of the famous volcano Krakatoa. Free at Kilaeua Military Camp Theatre.

WEDNESDAY: 8:15 a.m. - PARK TOUR - Auto caravan assembles at Lava Tube. Trip includes Chain-of-Craters, Halemaumau, and Uwekahuna Museum for lecture and movies.

10:30 a.m. - LECTURE and MOVIES at Uwekahuna Museum.

FRIDAY: 8:30 a.m. - April 4 and 18 HIKE TO PULU FACTORY, HAPAU CRATERS AND LAVA TREES - Start from Volcano House and Military Camp by automobile.

8:30 a.m. - April 11 and 25 HIKE TO 1700 FOOTPRINTS AND MAUNA IKI. Start is made from Volcano House and Military Camp by automobile.

SATURDAY: 8:15 a.m. - PARK TOUR - A short caravan that includes the Lava Tube, Halemaumau and lecture and movies at Uwekahuna Museum. Start from Volcano House.

10:00 a.m. - LECTURE AND MOVIES at Uwekahuna Museum - A general lecture on the park and movies of the recent eruption.

SUNDAY: 9:30 a.m. - MAUNA LOA TRUCK TRAIL AUTO CARAVAN - Meet at Kipuka Puaulu (Bird Park) parking area for a 20-mile round trip drive to 6,700 foot elevation.

Museum open daily 8:00 a.m. to 3:30 p.m., Sundays 9:00 a.m. to 4:00 p.m.

SPECIAL GUIDED TRIPS

Special Guided Trips for parties of 5 or more persons may be arranged by submitting requests to the Superintendent one day in advance.

Edward G. Wingate
Superintendent

Gunnar O. Fagerlund
Assistant Park Naturalist
Census

At intervals during the month regular census counts were taken on established plots in the various habitat types found in the park. Additional counts of supplementary nature were taken at other localities. Positions of censused spots were entered on a map and assigned numbers; a tabulation form was worked out for use in analysis of the counts. Localities for five plots placed from 2000 feet elevation up to 7500 feet were worked out for counting Ohia Lehua trees in blossom as part of environmental analysis in studying seasonal shifts in the bird population.

Life History

Trapping and banding were carried on for life history studies, and nesting observations were made on five species of birds found nesting at this time. A few individuals were collected for parasite and disease, food habits, and reproductive cycle studies. Study skins were made of two Amakihi and two Elepaio.

Food Habits

Six stomachs were analyzed, and others were collected, including native and introduced birds.

Stomach examination cards, schedules, and tabulation forms were received from A. W. Nelson, Acting in Charge, Food Habits, Division of Wildlife Research. Copies of 15 California Valley Quail stomach examination records were sent to him, as requested.
Parasites and Diseases

As mentioned in previous reports, a peculiar condition in two species of introduced birds (Japanese Hill Robin, California Valley Quail) characterized by the black macroscopic appearance of the testes and with the interstitial spaces of these organs packed with bacilli has been found. Heretofore, only males in non-breeding condition were seen to be so affected. During the present month two male quail were found to have the testes enlarged and in apparently good breeding condition and yet to show innumerable black specks. Of two Japanese Hill Robins dissected, one was in non-breeding condition and showed dark black testes, while the other was ready for breeding and had testes of the normal whitish color. It would seem that the infection may or may not affect the functional cycle of the testis.

Additional specimens of internal parasites of native birds were collected, and a case of bumblefoot in an Amakihi was photographed.

Results were obtained on the collection of lice and mites sent to the Bishop Museum of Honolulu for identification on April 11, 1940. The specimens were then forwarded to Dr. Cope of Stanford University by Mr. E. C. Zimmerman, Entomologist at the Bishop Museum, and the latter has now relayed to us a list of the names as sent to him by Dr. Cope. We are told that Dr. Cope is preparing a paper for publication by the Bishop Museum.

Ectoparasites collected were as follows.

<table>
<thead>
<tr>
<th>Host</th>
<th>Parasite</th>
</tr>
</thead>
<tbody>
<tr>
<td>Domestic fowl</td>
<td>Mallophaga, Menoponidae</td>
</tr>
<tr>
<td>Chicken</td>
<td>Mallophaga, Menoponidae</td>
</tr>
<tr>
<td></td>
<td><em>Menopon gallinac Linn.</em>, The Common Hen Louse. &quot;a very active, abundant, and widely distributed poultry parasite infecting domestic poultry including chickens, ducks, and pigeons.&quot; (This and following citations from E.O. Essig’s Insects of Western North America (N.Y.: Macmillan, 1929)).</td>
</tr>
<tr>
<td></td>
<td><em>Menopon stramineum</em> Hitzsch, The Large Body Poultry Louse. &quot;a common form...The hosts are chickens, turkeys, pigeons, and peacocks.&quot;</td>
</tr>
</tbody>
</table>
2. Introduced wild birds

- Pheasant (Phasianus colchicus spp.)
  - Gonicocotes holeraster Nitzsch, The Lesser Chicken Louse. "a common chicken infesting species..."
  - Lipurus caponis (Linn.), The Variable Chicken Louse, "common on chickens..."

- California Valley Quail (Lophortyx californica vallicola)
  - Goniocotes holeraster N., Lipurus caponis (L.)
  - Lipeurus caponis (Linn.), The Variable Chicken Louse.

- Ricebird (Niloria nigalia, Ploceidae)
  - Goniocotes holeraster N., Lipurus caponis (L.)

- European House Sparrow (Passer domesticus)
  - Liponyssus oesedensia Banks, A feather mite.
  - Mallophaga, Philopteridae

- Japanese Hill Robin (Lothrix lutea, Timeliidae)
  - Liponyssus sp.
  - A feather mite

- Mynah (Acridotheres tristis, Sturnidae)
  - Liponyssus sp.
  - Acarina, Analgesidae, Bird mites. A large, ubiquitous family feeding on feathers, scales, etc.

- Linnet (Carpodacus mexicanus frontalis)
  - Liponyssus sp.
  - Acarina, Sarcoptidae, Itch or Scab mites. Mites of this family are responsible for depluming and scaly leg in birds.
  - Mallophaga, Philopteridae

- Philopterus subflavescens (Goss.)
  - This species occurs on many perching and song birds.
3. Native birds

Hawaii Elepaio (*Chas-*)

Acarina, Analgesidae

*B. mandicuensis* (Muscicapidae)

Omao (*Phaouris ob-

Acarina, Analgesidae

scrus* Turdidae)

Oahu Amakihi (*Chloro-

Acarina, Analgesidae

drepanis chloris* (Drepanididae)

Analges sp. Bird mite.

*Mallophaga*, Philopteridae

Philopterus new species.

This genus is found on

many different orders of

birds.

Hawaii Amakihi

Acarina, Analgesidae

*B. virens* Bird mites.

In addition to the native birds listed above as

hosts, four other species of Drepanididae were examined

without disclosing the presence of either lice or mites.

These ectoparasites were collected from native and

introduced forest birds and domestic fowl in order to

learn whether there had been transference of injurious

foreign ectoparasites introduced inadvertently with for-

eign birds to native species of birds. In the above

list we find nine species of lice occurring upon intro-

duced birds. Not one of these exotic species was found

upon any native bird. This, in spite of the native and

introduced birds’ living in fairly close association in

most cases. Only one native species had lice at all,

and these proved to represent a new species, which pre-

sumably was ancestrally associated with its host.

In collecting these parasites, about 40 individuals,

inclusive of eight species of native birds were examined.

Forty specimens, of course, is actually not a large num-

ber, but it does give some basis for concluding that

serious lice infestations were not occurring in the

native birds at the time and under the conditions in which

they were collected. Weather conditions could hardly be

said to be holding lice in check, for linnet and chicken

infestations were fairly severe.

We are still ignorant concerning the mites, for few

of the specimens were identified even down to the genus.

However, no Sarcoptid mites were found on the native birds

even though the Linnet was infested with them.
Thus, the situation as suggested by analysis of the preliminary list sent by Dr. Cope, seems to be that the introduced ectoparasites are not widely established on the native birds and that they may not even occur on them at all.

Reconnaissance

Outlying portions of the park including Kipuka Maunau and Ainahou were visited to check on seasonal movements and on environmental conditions. Goat grazing was found to be severe and detrimental to Koa and Namane reproduction above the goat-proof fence in Kipuka Maunau.

Other projects

Work was started on a project to determine the effects of cattle grazing on Koa and Namane reproduction in the park lands as requested by the Director. This will be reported upon elsewhere.

Respectfully submitted,

Paul H. Baldwin
Senior Foreman (Wildlife)
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<th>Date</th>
<th>Census</th>
<th>Life</th>
<th>Food</th>
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Memorandum for the Superintendent:

Subject: Chief Ranger's report for March.

The Chief Ranger's report for the month of March is as follows:

010 - General: Work for the month was confined to normal routine and no outstanding event is listed. Our water supply problem has been relieved by the much needed rain which fell on the 17th. and continued intermittently during the remainder of the month.

020 - General weather conditions: Rainfall for the month was 7.18 inches. Rainfall for the period January 1 to date is 11.24 inches.

210 - Maintenance: Routine maintenance of telephone lines, instruments, traffic counters, and signs was carried out during the month. Several new signs were installed, resulting in a noticeable improvement of our sign system.

410 - Lecture and guide service: The following public contacts were made by members of the ranger staff:

<table>
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<tr>
<th>Type</th>
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<td>14</td>
<td>279</td>
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<td>Lectures</td>
<td>19</td>
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510 - Increase or decrease in travel: Figures for the month show an increase of 2500 persons as compared with those of February. This is classed as a normal seasonal fluctuation.
520 - Visitors: No visitors of note were contacted by the division during the month. Special visitor groups include the following: twenty persons from the Kohala High School, and 135 persons from the Hilo Japanese Church.

610 - Ranger Service: Patrols were made along the West boundary in the Mauna Loa and Seacoast sections. Also to the summit of Mauna Loa, Napeu Crater, and along the Seacoast in the lands of Ayun and Kabae.

Eighteen goats and eight pigs were destroyed during the month.

Night patrols were carried out and one motorist was assisted.

Additional work has been accomplished on the inventory of park property. Two meetings of the Board of Survey were held during the month.

A number of tree seedlings have been transplanted. The ones that were planted in the Hilina Pali section some time ago have suffered considerably from the continued drought. Screens have been placed around 38 of these seedlings in order to protect them from browsing by goats.

Added interest has been shown in connection with our rifle practice and we have scheduled a tentative match with the Hilo Badminton Club.

640 - Forest fire protection: A class B fire burning over .7 acre of brushland in the Haleakula section occurred on the 2nd. This was caused by a CCC enrollee allowing his warming fire to escape.

650 - Building fire protection: A fire drill and instruction meeting was held at the Volcano House during the month.

Joseph H. Christ,
Chief Ranger.
Walluku Maui
March 31, 1941

Memorandum to Superintendent Edward G. Wingate through office of Chief Ranger J. H. Christ.

Enclosed are the monthly travel report, narrative report, information for FFU-1, and Ranger Station and Observatory 1005-Met'1. records.

Frank A. Hjort
Park Ranger
Memorandum to Superintendent Edward G. Wingate
through office of Chief Ranger J. H. Christ

000 General

010 Introduction

The middle of this month brought the end of our long drouth and gave us about 40,000 gallons of water in our storage tanks.

Howard A. Powers, Ranger in Charge of the Haleakala Section of the Park was called to the colors as a first lieutenant to serve with the quartermasters corps at Fort Armstrong on Oahu. He left by Navy plane this morning from WJ-3 Naval Air Port to report for duty on April 1. Everyone down to the water boy hated to see him leave his post here, but all realized it must be. The CCC enrollees gave Mr. Powers a fine wrist watch as a token of their esteem for him.

020 General Weather Conditions

The winds at Pakaoao Observatory this month have been mostly from the east. There have been 20 clear days, 7 partly cloudy, and only 4 cloudy days while the temperature dropped to 28 deg. on the 29th. Maximum for the month was 61 on both the 13 and 22. Rain fell on ten different days to total 1.39 inches all of which fell after the 14th of the month.

The east winds or "trades" blew most of the month at the Ranger Station also. There were 11 clear days, 14 partly cloudy, and 6 cloudy days this month. 69 deg. was the maximum which occurred on the 9th and 39 deg. was the minimum on the 22nd. Rain fell on nine different days from the 14th on to total 3.52 inches. On the 13th frost was observed as low as the 6000 ft. level.

100 Administration

110 Status of work

Work on the seismograph shelter is progressing satisfactorily to date.
200 Maintenance, Improvement and New Construction

230 New Construction

The excavating has been completed and the concrete floor laid for the new seismograph shelter. Reinforcing steel is now going up for the walls and if weather permits the forms will be in place for the final pour on the last of this week.

400 Flora, Fauna and Natural Phenomena

490 Natural Phenomena

The drought was so severe here that it had a damaging effect on many of the different shrubs growing in the park. Pillo, Himani, Alii, Naome, Pukave, and Ahinahina (the silver leaved geranium) were dried out to the extent that a large portion of the shrubs will die back and in some cases on the smaller individuals the entire shrub will be lost. This occurred at elevations above 7,500 ft only. The recent rains came in time to save many of the plants and to stop further damage to those already affected. A careful check was made on the silverswords and none were found to be suffering in the least. Evidently their ability to gather dew as the pineapples do has saved them from these severe droughts.

500 Use of Park Facilities by the Public

510 Increase or Decrease in Travel

This travel year to date is 10% behind last year but this month and February are both over last years number for these months. The percent on decrease is becoming smaller each month.

520 Conditions which Affect Travel

The number of people using the rest houses in the crater this month is very low because of the hard driving winds we have had all this month. These winds make travel in the crater very uncomfortable.

600 Protection

620 Fire Protection

On March 2nd a small fire started which was covered in a separate report.

640 Destruction of Predatory Animals

35 goats were destroyed this month--18 billies, 17 mammies.
Data for FFU-l report from Haleakala

From out of territory 370 persons
From territory 1340 "

Bampers: 7 (spent 11 nights in rest houses)
Sightseer 1703
UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
HAWAII NATIONAL PARK
HAWAI'I

April 1, 1941

Memorandum for the Superintendent through the Chief Ranger:

My report of ranger activities for the month of March, 1941., follows;

Contacts: Mar. 1, Inter-Island Tour, 26 persons for 1½ hours. (The duration of tours and hikes and lectures are now required by the Naturalist office and are reported as V.P.H. or visitor participation hours.)
Mar. 2, Mauna Loa Tour, 2 persons for 2½ hours.
Mar. 4, Tour for Estes Park group, 4 persons for 3½ hours.
Mar. 7, Napau Hike for 18 persons for 3½ hours.
Mar. 8, Inter-Island Tour, 4 persons for 1½ hours.
Mar. 14, Heune Lci Hike, 21 persons for 3½ hours.
Mar. 19, 2 Bird Talks with slides, Hilo High School biology classes, 70 persons for ½ hour.
Mar. 23, Tour for Kahala High School, 20 persons for 2½ hours.
Mar. 26, RMC Tour, 11 persons for 2½ hours.
Mar. 27, 4 Bird Talks with slides, Hilo High School, 2 biology classes and 2 chemistry classes, 140 persons for ½ hour.

Miscellaneous: Five Superintendent's reports were perused and notes made of items of interest.
A Hawaiian language course of 16 lessons at Lyman Hall, was completed on own time and transportation.
Attended regular meeting of Manuiki Society. Also prepared a bird migration paper on own time for reading at the next meeting.
A copy was made of my seacoast trip report for the Washington office.
The office equipment inventory reached tentative completion pending review by the Chief Clerk and completion of the Observatory inventory.
Started work on a history of the Volcano House for use at the cornerstone laying, Sept. 5th. This is on own time.
A patrol was made (mounted) of the Kapalapa-Park boundary from the end of the Hualo Loa Truck Trail to Nanakuli Paio and horse coral at the old golf course. The boundary fence was found down in one place below the lowest cross-fence and temporary repairs were made. Three gate were shot on the trip.
Letters were prepared for Dr. Carter, Dr. Arthur Short and Lt. Rigg.
All routine duties were done as directed.
Several days were spent at the nursery where the following plantings were made; Transplanted: 58 ohia, 15 manele, 65 manami and 9 paeo. 267 hau cuttings were made and planted in time. One flat of kokio seed was transplanted. This seed was obtained from Mr. Eugene Horner and came from Puuwaawaa.

Gunder E. Olson, ranger.
April 2, 1941

Memorandum for the Superintendent through the Chief Ranger:

Subject: Narrative report for March.

Routine assignments of flag, switchboard, and patrol duty were carried out.

Public contact work consisted of the following:
1 Mauna Loa tour and 1 hike for a total of 14 persons and 27 visitor participation hours.

A "Camporal" for the Puna District Scout troops was held at Kipuka Nene from the 28th. to the 30th., incl. This was attended by 16 members of Troop #22 of Pahoa and 11 members of our local Troop #6. A hike and a field trip was conducted for this group for a total of 130 visitor participation hours.

Items of work accomplished are as follows: A new hose was installed for the traffic counter at headquarters and the contact points cleaned and adjusted. A telephone instrument was rebuilt and installed in the ranger's office. The overhead telephone line serving the old Observatory was rerouted in order to remove it from the new building area.

Inspection of the various construction projects was carried out. Engineering assistance was given the CCC organization as follows: the survey for the Volcano House entrance road was made and aid was given the foreman in laying down the sub-base and with the oiling work. The various rock curb lines were staked out. Grades were set for a parking area at the rear of the CCC Camp kitchen. A 220 yard track was designed and marked out on the Camp recreation field. The floor grades and building lines at the Observatory and Naturalist building were established.
A lighting and timing circuit was designed for the proposed vault to house the seismographs at our present Observatory installation. The necessary material lists for this installation were prepared. The seismograph vault cover for the Haleakula installation was designed and the timing and lighting circuit details worked out.

A collection line for the Observatory and Naturalist building was designed and the material lists prepared with the help of the Assistant to the Superintendent. The list of materials needed for completion of the telephone and electrical system for this building was prepared and turned over to the Chief Clerk. Some time was spent on the design of the proposed water system. A pressure test was made for our present fire pump in order to determine whether we could use it to force water into the Volcano House 400,000 gallon tank. Sufficient pressure is developed in order to do this.

Letters were prepared for submission to the Director and Region IV regarding the various additions to the Volcano House plans.

Arthur L. Jess,
Park Ranger.
MEMORANDUM FOR THE SUPERINTENDENT

Through the office of the Chief Ranger

SUBJECT: Regular Monthly Report of the Duties Performed by Ranger P. E. Schulz, Month of March, 1941

Ranger Duties:

Regular one week turn was taken as flag custodian and on 24-hour duty.

One horse-back trip up Mauna Loa was made on March 24-25; Mr. X by
ery of the Tribune Herald and Mr. Ted Wiese of Schenley International were
appreciative companions.

Hawaiian Volcano Observatory Duties: were executed during the first week of
the month as follows:

Worked out the grams almost daily

Compiled the H. V. O. weather report for February with the help of Mr. Finch.

Plotted: crack changes, Jan to Feb.

Pit tilt, daily for both W and SH stations for Feb. and March.

Tilt correction, daily, and entered same into the H. V. O. Journal.

Computed and plotted weekly seismicity.

Wrote the seismological portion of the H. V. O. weekly report.

Turned Kilauea Crater angles with transit, computed and plotted results.

Located Kilauea quakes for January.

Wrote up February grams for Kona, Hilo, Pit, Uwekohuna, and Mauna Loa.

Checked J. S. A. records with H. V. O. telemeters for Nov. and Dec. 1940.

Interpretive Duties:

5 tours were conducted for 47 persons; 2 hikes were conducted for 25
persons, and 13 lectures were given to 561 persons, totaling 545 hours
visitor participation hours.

3 days were spent on duty at the museum.

3 days were spent in painting on the museum relief map.

9 days were spent in research and writing of eruption data for Mr.
H. E. Dougherty. Mr. J. Choffee later mimeographed the same and did an excellent
job of it. Of the 9 days, 3 days were on the undersigned's own time.

1 day was spent on museum loan survey

1/2 days were spent on finishing with the Park Naturalist the cataloging
and outlining of the H. V. O. negatives.

The afternoon of March 21 was spent with Mr. Moomaw and Mrs. Blossum-
game on the consideration of possible rock material from which to construct a
fireplace at the new Volcano House.

Miscellaneous Activities:

Wrote regular monthly report of February.

Wrote official letters to Dougherty and Dr. Bellard.

Reworked Landscape Foreman’s Hewitt’s press release.
Attendee Toastmasters' Club on March 14-18.

Attended the initial meeting of the Journal Club on March 20.

Days Off:
6 1/2 out of the allowed 7 1/2 days off were taken as follows:
Full days: March 2, 11, 18, 27. Half days: March 4, 17, 26, 29, and 30.

Wildlife and Natural Phenomena:
On March 25 a Japanese Hill Robin was found dead (and dried) at about 7,000 feet along the Mauna Loa-Kilauea trail.
The 1940 cone was noted to be visible above the skyline rim of the SW wall of Hoku'moonu Crater as seen from both the old Summit House site and from the 13,070 feet spur.
At several times during the days of March 30 and 31, but especially during the middle of the days, it was noted from Uwekahuna that severe dust storms were in progress in the Kau desert. At times the dust clouds were so dense as to nearly obscure Puu Koa, Cone Crater, and the Kuna'ka Hills.

Paul Ernest Schultz
Park Ranger.
April 1, 1941.

Memorandum to the Superintendent through the office of the Chief Ranger

Subject: Monthly report for March 1941.

Duties
My routine activities for the month were regular assignments at flag duty, night check, switchboard, patrol, traffic check, etc. Miscellaneous activities were eradication of exotic plants, taking care of sign shop and lettering signs, inventory of fire fighting and fire prevention equipment, protection of seedling trees at Helina Pali, making cuttings or slips for nursery, care of park horses at the corral, telephone line trouble shooting, patrolling fences from 6,700 ft elevation to Kau entrance.

Outside or after hours activities were 14 hours of first aid classes, two meetings of the "Hilo toastmasters Club" at the Naniloa Hotel, also I spent considerable time on the study of "Hawaiian Mythology".

Wild Life
A number of medium sized bands of goats were seen by the undersigned in the area South of Six Tanks. An increasing amount of destruction has been noted in the vicinity of the Pulu Factory and Makaopuhi Crater by wild pigs.

Contacts
Mar. 9th - Mauna Loa Tour---------------------6 people-----2 cars
" 12th - K.M.C. " ---------------------4 " -----1 "
" 15th - Inter Island " ---------------------15 " -----5 "
" 21st - Mauna Iki Hike---------------------5 " -----2 "
" 30th - Park tour(Hilo Jap, Church)--135 " -----25 "

Comments: I would like to suggest a CCC project be created on the following; the allocation of 300 man days labor and the expenditure of $100.00 for materials to construct two habitable rest houses. One to be built at Helina Pali and the other at Apua. I might state the present accommodations at Enuha, Apua and Hale Pali are crude and primitive, affording nothing in sanitary facilities or comfort in camping accommodations. The necessity of building these structures can be realized by those whose duties require camping in the vicinity.

Respectfully submitted,

Charles J. Miller
Park Ranger
UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
HAWAII NATIONAL PARK
HAWAII

April 2, 1941

Memorandum for the Superintendent:

Subject: Park Foreman's monthly report on activities of Maintenance Division during month of March, 1941.

Routine maintenance work such as sanitation, garbage disposal, road-side clean-up, pumping water, cutting and hauling wood was carried out.

103. Started crating Waesche's furniture to be shipped to the mainland.

104. Shod horses for a trip up Maua Loa.
   Built fire tool carrying box to be installed in Ranger Patrol Car #799. Also built telephone box to be installed at Hilo entrance to Park.

211. Hauled water to Park reservoir from 6-tanks during first half of month. Cleaned sewer at Olson's residence.

217. Routine garage work was carried on during Fujimoto's absence on annual leave.

529. Completed new bunkers and set up crusher. This project is now 100% complete and is in operation.

101. John Hauanio, Sr., carried on regular office janitor work along with his other duties during the period Chan. Kauhi was on sick leave.

Respectfully submitted,

Herbert J. Quick
Foreman of Cons. & Maintenance
UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

Hawaii National Park

FILE NO.

MONTHLY REPORT
FEBRUARY 1941

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. Officers and employees will be held responsible for failure to observe these rules, which are necessary to protect the integrity of the official records.

ARNO J. CAMMERER,
Director.
MEMORANDUM for the Director

There follows the narrative report of activities in Hawaii National Park for the month of February, 1941.

000 - General
010 - Introduction

Superintendent Wingate was absent from the park throughout the whole month attending the Superintendents' Conference. Generally, it was a normal month for this season of the year, travel showed the usual seasonal increase and regular work of the park progressed in the normal manner. The CCC work was hampered considerably due to the shortage of men, and the inability to get enrollees because of the intensive defense work on the island of Oahu. The month ended with a company strength of 123, 77 men below the authorized strength. Naturally this slowed up the work on the various projects and at one time the crew working on the Kilauea Fali road job had to be temporarily moved in order to operate the rock crusher for the other jobs in progress.

CCC Wildlife Foreman Paul H. Baldwin completed his second report and it was mailed to the individuals and organizations that have requested these reports. It is one of seven of a series to be produced by Mr. Baldwin and it is entitled "CHECK LIST OF THE BIRDS OF HAWAII NATIONAL PARK, KILAUEA-MAUNA LOA SECTION, WITH REMARKS ON THEIR PRESENT STATUS AND A FIELD KEY FOR THEIR IDENTIFICATION." This is a comprehensive list and shows very diligent and painstaking work by Mr. Baldwin, and it is a very valuable contribution to the wildlife literature of this archipelago.

Flame was observed from Park Headquarters rising above the summit crater of Mauna Loa on the afternoon of the 11th and naval aviators reported very heavy fume columns observed coming from the crater on the morning of the 12th. However, no further activity was observed from Mauna Loa.

The water situation in the park is very acute. The park, CCC Camp, and the Kilauea Military Camp are all hauling water for their domestic supply, and the Volcano House while at the present is not hauling water has reached a very serious shortage in their storage tanks.
There were only 3.22 inches of rain throughout the month, which was about 5 inches less than the minimum necessary for the collection of sufficient water for the collection of water. The storage problem in this area and according to local meteorologists we can expect another five years of abnormally low rainfall as we are in now in the second year of the seven-year dry cycle for these islands, and with the increased use of the area additional storage facilities are necessary before next year.

Construction of the Volcano House was initiated by the contractor on the 10th and at the end of the month, satisfactory progress was noted, with the foundation footings and walls about one-third complete.

Ranger Hjort of the Haleakale Section was ordered to Headquarters for conference on administrative, naturalist, and ranger activities, arriving on the 18th as Ranger in Charge Howard A. Powers is to report for one year's military duty some time in March as 2nd Lieutenant Quarter Master Corps. Ranger Hjort is to carry on at Haleakale in Dr. Powers' absence. Hjort returned to Hilo on the 73rd.

020 - General Weather Conditions

The mean maximum for the month was 65.9°, the mean minimum was 49.2°, giving a mean of 57.1° for the month. The maximum temperature of 72° F. was recorded on the 3rd, and the minimum of 39° F. on February 9th, and the greatest daily range was 37°. As mentioned in 010 above, the total precipitation was 3.22 inches with greatest daily figure of .46 falling in 24 hours on the 25th. No snow was observed on either mountain. There were 10 days registered as partly cloudy and 16 as cloudy. Haleakale summit maximum temperature 60°, minimum 18°.

100 - Administration

110 - Superintendent's Special Activities

Superintendent Wingate was on the mainland or enroute back to Hawaii throughout the whole month, arriving at Hilo on March 1. The Assistant to the Superintendent was acting Superintendent during his absence and the following special activities are noted: The Preliminary Estimate for 1943 was completed and mailed by the 15th.

The Acting Superintendent made several trips to Hilo during the month, the afternoon of the 6th to attend the regular meeting of the Hawaii County, Highway Traffic Safety Commission, and on the evening of the 6th to attend the annual meeting of the Kilauea Council Boy Scouts of America. Superintendent Wingate was reelected as a member of the council and the Assistant to the Superintendent was also elected to this organization. Field inspection was made of the Keana Loa truck
trail on the afternoon of the 20th, and similar inspection was made of the Hilmn Fall truck trail on the 22nd.

Considerable time was spent in company with Ranger Bjert between the 18th and 23rd.

150 - Maps, Plans, and Surveys

Senior Foreman L. H. Hewitt, landscape architect, continued work on the new tracings for the Hawaii Master Plan in order to show the recent major changes within the Headquarters area due to the construction of the new Volcano House and the new Volcano Observatory and Naturalist Building. Toward the end of the month most of these sheets had been retracted or the changes noted with the exception of the sheets of the engineering section.

150 - General Publicity

The routine weekly report of the volcanoes were mailed to all newspapers and Mr. Schulz completed an article for the "Paradise of the Pacific" entitled "OPEN HOUSE TO FALL." This article has been accepted but to date has not been published in this magazine. Several articles appeared in the local papers regarding the transfer of Assistant Superintendent John Doerr at Rocky Mountain to the Washington Office as Chief Naturalist. Mr. Doerr was formerly Naturalist in this park and has many friends within the islands.

Exceptionally favorable comment was noted in the column of the local paper that is written by the Androon Society affiliate of Hilo "The Maukiki Society" which was stressing and urging the Legislature to pass the proper legislation in order that the park may acquire private lands in the Kalapana addition, and also urging that Congress apply the National Migratory Bird Act to Hawaii.

200 - Maintenance, New Construction and Improvements

210 - Maintenance

The park forces continued routine maintenance work of park houses, roads and other structures within the area, and the Chief Ranger reports that routine maintenance of telephone lines, instruments, and traffic counters was carried out during the month.

220 - New Construction

The park maintenance force initiated construction on the new stone bunkers at the park rock quarry which was approved in the grant for minor road Job 529.
Construction on the new Volcano Observatory and Naturalist Building proceeded slowly but satisfactorily with the expenditure of 821 man days on the project by the CCC. The work carried on was primarily toward completion of the basement, other foundation work, and the stone masonry walls which extend up to the window sill line of the building.

The CCC forces which are installing the minor roads and parking areas at the Volcano House and the Volcano Observatory and Naturalist Building sites with funds from the Roads and Trails appropriation is progressing satisfactorily. Both entrances to the Volcano House were completed at the end of the month. Connecting drive ways and parking areas are yet to be built.

230 - Special improvement activities

CCC Chief Cleric-Quartermaster Clarence H. Underwood went on annual leave on the 10th as a result of his resignation which is effective at the end of his secured and current leave.

CCC Camp Director Frank O. Huston reports that during the month he enrolled 6 new men and discharged 12; 2 discharges were dismissals for infraction of camp regulations. He reports 3 minor accidents and the loss of 3 man days, and the loss of 6 man days due to medical causes making a total of 9 man days lost. The doctor on his weekly inspections has found the camp clean, and in good condition and the enrollees healthy.

The camp basketball team lost 3 games and won 1 game during the month. The camp boxing team had four boys entered in the finals for this island, and as a result of the finals one of our boys will go to Nan and Honolulu for the championship matches. The boys are also beginning to turn out for baseball practice. The Camp Director reports a crime wave in camp due to outsiders coming in and attempting to disturb peace. This is detailed under 620 Police Protection.

The CCC Project Superintendent reports that a daily average of 87 enrollees were released to him during the 30 working days of the month giving a total of 1,949 man days expended on the projects. By far the majority of these man days were expended on the Volcano Observatory and Naturalist Building and the Minor Roads and Parking Area jobs in the immediate vicinity of the Headquarters building. The sub-camp at Halaekala Section reports that the doctor found the camp clean and orderly at each inspection and very little sickness throughout the month. There was one accident when a boy had his finger shot off through carelessness of another enrollee. This was made the subject of a special report. The investigation found that the boy who was shot was standing near the other when he pulled the gun from a pack saddle, while the ranger had his back turned, proceeded to see what made the wheels go round. It was evidently the first time that this enrollee had ever seen a .45 and in his initial study he managed to shoot a finger off of his friend's hand.
The Foreman's report from this camp shows that 27 man days were lost due to medical reasons. A total of 417 man days were worked on projects, which consisted primarily of completion of the private garage of the ranger's quarters, the remainder of the man days were used on Road and Trail Maintenance.

300 - Activites of other agencies in the Park

310 - Park operators

Mr. George Lycourous, Manager of the Volcano House, was quite upset towards the first of the month upon receipt of notice from the Inter-Island Steam Navigation Company that in the future they did not intend to acquire box lunches from the Volcano House for their tour that proceeds around the island. They are now serving hot lunches to their tourists at their new rest house at Kamehame. However, due to the small total that this business grossed during the year, the writer does not feel that the Volcano House will suffer an appreciable loss of business because of this revision of the policy by the Inter-Island Steam Navigation Company. As mentioned in 310 above construction was started on the new Volcano House on the new location on the 10th and satisfactory progress was made by the contractor, Mr. Isemoto & Company of Hilo, through the period covered by this report.

Completed forms were received from Mr. K. J. Walsh, Island of Maui, for the continuation of his concession at the Observatory in the Haleakala Section were received toward the end of the month.

320 - Cooperating governmental agencies

Mr. John Padgett, Senior Engineer of the Public Road Administration, had a conference with the Acting Superintendent regarding the result of the park traffic count throughout the year on February 3rd.

Major Hugh F. Conroy assumed the duties of commanding officer of Kilauea Military Camp replacing Colonel Stockbridge Hilton on February 1. However, on February 15, Major Conroy had to leave for Tripler General Hospital at Fort Shafter, Oahu because of ill health following immediately after assuming duties as commanding officer. During Major Conroy's absence, Major T. A. Robinson, National Guard instructor at Hilo, has been ordered in to serve as commanding officer temporarily. Major Robinson is well known by the park staff, as he has been in Hilo for four years.

350 - Donations and accessions

Mr. Clarence H. Underwood, Chief Clerk-Quartermaster at the CCC Camp, has offered to donate an ancient Hawaiian bowling stone for use at the park museum. This donation was offered by Mr. Underwood prior to his departure from the park, as he entered on leave to accept private
employment in Honolulu. A letter requesting acceptance of this donation was forwarded to the Director.

400 - Interpretation

410 - Lecture and guide service

Routine lectures, park tours, and hikes were given throughout the month with four permanent rangers devoting three or four days each month to interpretative work in assisting the Park Naturalist. Ranger Schafl has been assigned to the Naturalist Division three out of four weeks of this month and has made it possible to help the Naturalist accomplish work that could not be done otherwise.

A total of 21 conducted trips and 10 lectures were given during the month.

420 - Museum activities

The Wakahuna Museum was opened daily throughout the month with the Naturalist or a ranger on duty at all times. Painting of the Hawaii Island relief map continued and a start was made in preparing final museum exhibit plan. There were 1,618 museum visitors.

430 - Research and observation

CCC Senior Wildlife Foreman Paul H. Baldwin continued his environmental study of birds directing his efforts mostly toward getting breeding studies underway. Park Naturalist assisted in getting photographs of the Nene (Hawaiian goose) at the Keau Ranch of the V. H. Shipman interests toward the middle of the month. Mr. Baldwin made environmental photos of various birds in the park for use in population and life history studies for his future reports.

Correspondence continued with Mr. Don W. Coburn, In Charge, Wildlife Disease Laboratory at Bowie, Maryland, of the Fish and Wildlife Service, regarding studies that are being made of the diseases of native birds within the Territory.

Mr. Baldwin's second report entitled "CHECK LIST OF THE BIRDS OF HAWAII NATIONAL PARK, AILUANA-MAUNA LOA SECTION, WITH REMARKS ON THEIR PRESENT STATUS AND A FIELD KEY FOR THEIR IDENTIFICATION" was completed and mimeographed during the month and copies were sent out to those people and organizations which had signified their interest in this work and had requested copies of the report.

This report came up to the high standard set by Mr. Baldwin for such work and this office feels that he should be complimented very
highly on the character of work that he is doing in Kilauea National Park.

433 - Geology
Scientist

Volcanologist Huy Finch of the Observatory reports the viewed from the surface, volcanic activity at Kilauea was confined to the usual steam vents and solfatara areas. There was a distinct increase in fume from Mauna Loa on February 11 and 12. The fume was visible from the Observatory during the late afternoon of February 11, and Navy aviators reported heavy fume over Mauna Loa the morning of February 12. Tilt for the month was slight to the south.*

The Observatory staff continued on routine observation and studies throughout the month. Ranger Schulz devoted the first week of the month to Observatory duty in addition to the regular staff. Mr. Schulz's duties consisted primarily of routine study of seismograms, drafting the seven-day mean tilt chart for 1941, monthly time correction, tilt and crack changes, and assisting Mr. Whaeche and Dr. Ballard in other routine work.

Mr. Stanley S. Ballard of the University of Hawaii, Geophysicist without compensation, was in the park from the 8th to the 18th continuing his study on volcanic gases from the Sulphur Bank and improving his method of collecting these gases.

434 - Archeology

Ranger Olson spent February 4-7 along the seacoast in the lands of Apua, Kahua, and Kealakomo making a study of the archeological remains in this recently acquired area and other lands authorized by the Kuleana addition. Mr. Olson found very interesting evidence of ancient occupation along the coast and a separate report of this is being prepared for submission to the Director.

500 - Use of Park Facilities by the Public

510 - Increase or decrease in travel

Travel figures show an increase of approximately 1,500 persons as compared with the figures for January. This is considered the normal seasonal fluctuation that we get each year.

520 - Visitors

February 3 - Admiral Richardson and Marquest with their wives and party were contacted at Kilauea Military Camp and were escorted over the area by the Acting Superintendent. While on this tour a
special showing of the Mauna Loa eruption film was given then at the
Uwekahuna Museum.

February 21 - Mr. Leo N. Rappaport of Indianapolis, Indiana and
his party were contacted on arrival at the park by Park Naturalist Pagerland,
Ranger Schula, and the Acting Superintendent. Mr. Rappaport spent about
two hours in the park with one or the other of the staff members, in
which he was shown the highlights of the park and a special showing of
the Mauna Loa eruption film at the museum. The party left at approxi-
mately 2:30 for the Kona Inn. Mr. Rappaport is a very close friend of
Colonel Lieber of the Advisory Committee on Historic Sites and Buildings,
and it is a pleasure to meet such agreeable people as Mr. Rappaport and
those within his party.

February 25-26 - Mr. Charles Hite, Secretary of the Territory of
Hawaii, and party spent the night at the Volcano House. They were con-
tacted by the Acting Superintendent and Chief Ranger Christ, and members
of the party who had not been over the area before were escorted over
the park by Mr. Christ.

Special visitor groups that were contacted throughout the month:

<table>
<thead>
<tr>
<th>Name of Organization</th>
<th>No. of Persons</th>
</tr>
</thead>
<tbody>
<tr>
<td>Columbus, Ohio Garden Club</td>
<td></td>
</tr>
<tr>
<td>Hilo Pua Company Employees</td>
<td>23</td>
</tr>
<tr>
<td>Hilo Camera Club of Hilo</td>
<td>17</td>
</tr>
<tr>
<td>A group of boxers from Hilo</td>
<td>24</td>
</tr>
<tr>
<td>Y.W.C.A. group from Hilo</td>
<td>30</td>
</tr>
<tr>
<td>Pearl Harbor Office Employees</td>
<td>43</td>
</tr>
<tr>
<td>Lahainaluna Basketball Team</td>
<td>12</td>
</tr>
<tr>
<td>Lanai High School Basketball Team</td>
<td>21</td>
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<tr>
<td>Nualu Y.W.C.A. Group</td>
<td>40</td>
</tr>
<tr>
<td><strong>600 - Protection</strong></td>
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<tr>
<td><strong>610 - Ranger Service</strong></td>
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</tbody>
</table>

Patrols were made to Napau, Kilima Pali, and the seacoast area
during the month. Ranger Olson made a trip into the lands of Apua,
Kahua, and Waiakame during the month. Ranger Miller spent three days
in this area accompanied by Jr. Park Warden Medeiros. Ranger Schula
made a trip into Makapupu Crater.

Ninety two goats and three pigs were destroyed during the month
in the Kilima Section and twenty goats were killed in the Haleakula
Section.
Considerable time was spent on the annual property inventory and it is nearing completion. Meetings of the survey board were held during the month and the necessary reports were prepared. Safety meetings were attended during the month. Two motorists were assisted.

The sign shop was moved from the fire warehouse to the new quarters in the garage.

The Chief Ranger reports "A considerable number of signs were replaced and new ones were erected by the Ranger Division during the month."

Seventy-five coconuts were planted along the seacoast area during the month.

Park Ranger Hjort was a visitor at Headquarters from the 19th to the 23rd, because Ranger in Charge Powers has been ordered to report for military duty and Hjort is to take charge in the absence of Dr. Powers.

Four members of the Hilo Police Force spent a night in the forested area near Puuohana when they were unable to return from a pig hunting trip due to darkness and fog. No one was injured and they were able to return to their car about 10:00 a.m. on the following day.

620 - Police Protection

Considerable time was spent by the Chief Ranger, Ranger Olson, and Camp Director Frank C. Huston of the CIG Camp in investigating a gang which was persecuting enrollees in Hilo. After they tried the same persecution in camp on the night of the 21st, they were apprehended. The culprits are now in jail following a hearing held by U. S. Commissioner Joseph Akan.

To quote Camp Director Huston's monthly report there follows: "We had some trouble in this camp during the month that disturbed us a great deal. It was reported to us that the enrollees from this camp who went to Hilo on their week and leave were approached by a man who lives in Hilo by the name of Johnson and asked for money, if it was not given they were threatened and sometimes given a beating.

"While we were trying to get information on this we were notified by telephone on the evening of February 21st, that this party was on the way up to the camp. Steps were taken and 7 men apprehended by Chief Ranger Christ and Ranger Olson, some of them were in an intoxicated condition."

"Two of them, Daniel Johnson and Richard Wong got into one of
the barracks before being caught; asking the boys for money and when they left both of them took a pair of shoes belonging to the government.

"In spite of the fact that we got written statements from some of the enrollees saying they had been assaulted by Johnson and money taken from them; the police said they could do nothing. We took the case to the F.B.I. agent here and he is holding them for stealing the shoes.

"We first took the case to the U. S. Commissioner here but he could do nothing as he says he has no authority in these cases. It looks as though we will be forced to take the case to Honolulu.

"This Johnson is a big bruiser with a long police record and Richard Wong used to be in this camp as an enrollee. Once before he instigated trouble and caused a boy to be badly beaten, and at that time we warned him not to return to the camp and to leave the boys alone when they would visit Hilo, but he has paid no attention to our warning.

"We feel that for the good of this camp and the protection of the small enrollees here we should do all we can to stop this practice."

Results of this case will be reported when it is completed.

650 - Building fire protection

Fire drills were held at the Volcano House and CCC Camp during the month. Satisfactory results were noted in both locations.

660 - Accidents

Two automobile accidents were investigated by the ranger service during the month. One on February 14th occurred between a Buick sedan, license 8425-2840, and a Hilo Military Camp truck that occurred on the Waialuao Highway near the Kau entrance to the park. The sedan was driven by Estacio Adami of Pahala, who carries a Territorial driver's license 91936, and the legal owner of this car is the Hilo Motors, Ltd. $28 deductible insurance covered the damages. The other investigation was the continuation of the CCC - Army accident of January 24, reported last month.

690 - Public Health

Samples were taken of the park water supply during the month and sent to Hilo for testing by the Territorial Board of Health. To date reports have not been received on this water.
900 - Miscellaneous

The Park Safety Committee held its regular monthly meeting with Assistant Geologist Hugh H. Beene as Acting Chairman on February 21st. Routine matters were discussed.

W. F. Moonaw, Jr.,
Acting Superintendent
1. General View - Construction of Volcano House

2. Volcano House Construction Foundation Detail.

Kilauea Crater in upper right corner
3. Spreading Rock - Driveways to Volcano House

4. Volcano Observatory and Naturalist Building
   CCC Job 384
   Setting forms for final concrete pour over basement
5. Flock of adult Whooper at Shipman's Ranch

6. Whooper and Canada Goose with hybrids in pen at Shipman's Ranch
United States Department of the Interior
National Park Service

Travel Report

Kilimanjaro Section, Hawaii National Park for the month of February, 1941

<table>
<thead>
<tr>
<th>Private Transportation:</th>
<th>This Month</th>
<th>This Travel Year To Date</th>
<th>Last Year To Date</th>
<th>Increase or Decrease for Travel Year</th>
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<tr>
<td>Cars first entry</td>
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<tr>
<td>Cars reentry</td>
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<tr>
<td>Motorcycles</td>
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<tr>
<td>Total motor vehicles</td>
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<tr>
<td>Persons entering via motor vehicles</td>
<td>20,474</td>
<td>93,690</td>
<td>15,374</td>
<td>63,558</td>
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<tr>
<td>Persons entering via other private transportation</td>
<td>457</td>
<td>1,873</td>
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<tr>
<td>Total persons entering via private transportation</td>
<td>20,474</td>
<td>93,690</td>
<td>15,374</td>
<td>65,731</td>
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</table>

Other Transportation:

| Persons entering via stages |   |                   |                |                                     |
| Persons entering via trains |   |                   |                |                                     |
| Persons entering otherwise |   |                   |                |                                     |
| Total other transportation |   |                   |                |                                     |

Grand Total All Visitors:

| 20,474 | 93,690 | 15,374 | 65,731 |

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<th>This Year</th>
<th>Last Year</th>
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<tr>
<td>Number</td>
<td>Percent</td>
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Automobiles in public camps during month...  
Campers in public camps during month...
United States Department of the Interior  
National Park Service  

Travel Report  

Haleakala Section, Hawaii National Park for the month of February 1942

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<td>Cars first entry</td>
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<td>Total persons entering via private transportation</td>
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<td>8020</td>
<td>1435</td>
<td>9580 - 1420 - 15</td>
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<tr>
<td>Persons entering otherwise</td>
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<td>8020</td>
<td>1435</td>
<td>9580 - 1420 - 15</td>
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<table>
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<tr>
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<td>Number</td>
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<tr>
<td><strong>AUTOMOBILES IN PUBLIC CAMPS DURING MONTH</strong></td>
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<td>15</td>
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<tr>
<td><strong>CAMPERS IN PUBLIC CAMPS DURING MONTH</strong></td>
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<td>8</td>
<td>15</td>
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UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

TRAVEL REPORT

National Park for the month of February, 1941

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<th></th>
<th>This Travel Month</th>
<th>This Travel Year To Date</th>
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</tr>
<tr>
<td><strong>OTHER TRANSPORTATION:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Persons entering via stages,</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Persons entering via trains,</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Persons entering otherwise,</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total other transportation,</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GRAND TOTAL ALL VISITORS,</td>
<td>20,474 93,690 15,831 65,781</td>
<td>20,474 93,690 15,831 65,781</td>
<td>425%</td>
<td></td>
</tr>
</tbody>
</table>

Automobiles in public camps during month, . . . . . .
Campers in public camps during month, . . . . . .
REPORT OF CAMP DIRECTOR, FRANK C. HUSTON, CCC HNP, TO SUPERINTENDENT E.G. KING, FOR THE MONTH OF FEBRUARY, 1941.

During this month 6 new enrollees were taken in and 12 discharges given: 10 honorable discharge and 2 dismissals.

There were 3 minor accidents with a loss of 3 man days. There were 6 man days lost due to medical causes making a total of 9 man days lost.

The doctor on his weekly inspections has found the camp clean, in good condition and the enrollees healthy.

The recreational Officers report shows that 50 enrollees attended the President Birthday Ball at the Hilo Armory.
The Basketball team had several important games loosing 3 and winning 1.

Boxing:
We had four boys entered in the final. One boy won and will go to Maui and Honolulu for the Championship games.
The boys are turning out for baseball practice.
Two recreational meeting were held this month.

The safety assistant report shows all safety regulations are being followed and all precautions being taken for the safety of the enrollees.
Two safety meetings were held this month.

The Senior Foreman Wildlife report shows much thought and time given to his work both in the field and office.
We wish to take this opportunity of commending him for the fine work he is doing in this area.

We had some trouble in this camp during the month that disturbed us a great deal. It was reported to us that the enrollees from this camp who went to Hilo on their week end leave were approached by a man who lives in Hilo by the name of Johnson and asked for money, if it was not given they were threatened and sometimes given a beating.

While we were trying to get information on this we were notified by telephone on the evening of February 21st, that this party was on the way up to the camp. Steps were taken and 7 men apprehended by Chief Ranger Christ and Ranger Olson, some of them were in an intoxicated condition.
Two of them, Daniel Johnson and Richard Wong got into one of the barracks before being caught; asking the boys for money and when they left both of them took a pair of shoes belonging to the government.
In spite of the fact that we got written statements from some of the enrollees saying they had been assaulted by Johnson and money taken from them, the police said they could do nothing. We took the case to the F. B. I. agent here and he is holding them for stealing the shoes.

We first took the case to the U. S. Commissioner here but he could do nothing as he says he has no authority in this case. It looks like we will be forced to take the case to Honolulu.

This Johnson is a big bruiser with a long police record and Richard Wong used to be in this camp as an enrollee. Once before he instigated trouble and caused a boy to be badly beaten, and at that time we warned him not to return to the camp and to leave the boys alone when they would visit Hilo, but he has paid no attention to our warning.

We feel like for the good of this camp and the protection of the small enrollees here we should do all we can to stop this practice.

The Project Superintendent's report shows a daily average of 97 enrollees released to him during the 20 working days of the month making a total of 1949 man days worked on the project.

Job Report:

R-4 Hina Auto Trail.
116 man days used here.

54 Volcano Observatory and Naturalists Building.
821 man days used on this project.

55 Cleaning Hotel Site.
33 man days charged to this project.

61 Water System Connection.
34 man days used on this project which was started on the 12th.

63 Minor Roads.
501 man days used at the Volcano House Site.

64 Parking Area.
76 man days used on this project.

74 Cesspools, Volcano House.
57 man days used on this project.

223P - Landscape Maintenance.
152 man days used cutting grass at the side of the park roads.

Works continued on 6 other project in the park.

Haleakala, Section

The Doctors report shows the camp clean and very little sickness, with one accident when a boy had his finger shot off through carelessness of another enrollee.

The Foreman's report shows 57 man days lost due to medical reasons. 417 man days worked on projects. No. 6555 Garage Private.
This project is now completed with the rest of the time used on 225 Road and Trail Maintenance.

Respectfully submitted,

Frank C. Houston,
Camp Director,
CCC BNP
March 5, 1941

MEMORANDUM FOR THE SUPERINTENDENT:

Report of Hawaiian Volcano Observatory for the month of February.

As viewed from the surface, volcanic activity at Kilauea was confined to the usual steam vents and solfataric areas. There was a distinct increase in fume from Mauna Loa on Feb. 11 and 12. The fume was visible from the Observatory during the late afternoon of Feb. 11, and Navy aviators reported heavy fume over Mauna Loa the morning of Feb. 12. Tilt for the month was slight to the south.

Some of the quantitative data obtained during February is shown in the following table:

<table>
<thead>
<tr>
<th>Week Ended</th>
<th>Tilt</th>
<th>Crack Movement</th>
<th>Seismic Disturbances</th>
<th>Seismicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feb. 2</td>
<td>Slight S by W</td>
<td>1.0 mm. opening</td>
<td>7</td>
<td>1.75</td>
</tr>
<tr>
<td>9</td>
<td>Slight SW by S</td>
<td>3.5 mm. closing</td>
<td>15</td>
<td>5.50</td>
</tr>
<tr>
<td>16</td>
<td>Mod. E</td>
<td>6.0 mm. opening</td>
<td>11</td>
<td>3.75</td>
</tr>
<tr>
<td>23</td>
<td>Mod. SW by S</td>
<td>0.5 mm. opening</td>
<td>21</td>
<td>7.75</td>
</tr>
</tbody>
</table>

Work of R.H. Pi'Anh

It became necessary during the month to rearrange the library because of the removal of a corner of the "tin" house. Some preliminary work was done on arranging material for an article on infilling in the crater of Kilauea and Mauna Loa. A list of the furniture for equipping the offices, library and storage rooms in the Observatory-Naturalist building was completed during the month. Many discussions with Messrs. Wassche and Loucks were held, as well as some with Mr. Fagerlund. Observatory correspondence was kept up to date.

Work of H.H. Wassche

The regular routine duties occupied a large part of Mr. Wassche's time. The routine duties consist of reading seismograms; preparing the weekly press report which at times of quiet consists largely of information
obtained from seismographs; compiling and plotting tilt; and measurements to detect movement at the cracks near Halemaumau and along the Chain of Craters road.

Some of the special work during February was as follows:

Feb. 1 - 7 Worked with Mr. Schulz with the object of making him more familiar with all phases of seismological routine.
4 Ran levels from northwest rim of Halemaumau to Little Boggar with Messrs. Schulz and Loucks.
8 - 12 Frequent discussions with Dr. Ballard and assisted in gas collection by a new method.
11 Studied proposed changes in vertical seismograph and helped in tearing down same.
12 Took Dr. Ballard to Hilo.
13 Repaired anemometer and made studies of the theory of the vertical seismograph.
14 Worked on vertical seismograph.
17 Observed crater angles and worked on vertical seismograph.
18 Ranger Hjort visited Observatory. Staff Sergeant Condon of Air Corps brought some large photographs of the summit of Mauna Loa and Mauna Kea.
19 Helped Ranger Jess trace radio interference on power line. Worked on vertical seismograph.
20 Assisted Rangers Jess and Olsen in locating radio interference. Acted as Chairman and Secretary of Safety Committee meeting.
21 Helped Territory Radio Inspector.
22 Vertical seismograph was put into operation with over 3 times the magnification of the old one.
27 Completed 1940 earthquake statistics, which completes this type of data 1935 to 1940 inclusive.

Work of Ranger P.E. Schulz

Mr. Schulz's duties at the Observatory during the month of February included the following: drafting 7-day mean tilt chart for 1941; plotting time corrections; Bosch tilt, crack changes, SE Pit tilt and W Pit tilt, all for the month of January; working on seismograms with Mr. Waesche; measuring cracks one day and working up data; meeting Dr. Ballard in Hilo and assisting in gas collections at the Sulphur Banks; helping make out weather report for January; ½ day with Messrs. Waesche and Loucks doing precise leveling.
Work of B. J. Loucks

Some of his special duties were:

<table>
<thead>
<tr>
<th>Date</th>
<th>Task</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feb. 1, 2</td>
<td>Worked on rock crusher job</td>
<td>4</td>
</tr>
<tr>
<td>4</td>
<td>Helped Mr. Waesche with levels around</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Worked on rock crusher job</td>
<td></td>
</tr>
<tr>
<td>6-10</td>
<td>Worked on job for Dr. Ballard</td>
<td>5</td>
</tr>
<tr>
<td>11</td>
<td>Worked on vacuum pump for gas sample</td>
<td>2</td>
</tr>
<tr>
<td>11-27</td>
<td>Worked on vertical seismograph in basement</td>
<td>4</td>
</tr>
<tr>
<td>27</td>
<td>Worked on photographic balance</td>
<td>3</td>
</tr>
</tbody>
</table>

R. H. Finch
Principal Scientist
UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
HAWAII NATIONAL PARK
HAWAII

OFFICE OF THE SUPERINTENDENT

March 7, 1941

MEMORANDUM FOR THE DIRECTOR:

There is attached the monthly report of interpretive activities for February 1941 and a program of interpretive activities for March.

Edward G. Wingate,
Superintendent

By: Gunnar O. Fagerlund
Asst. Park Naturalist.
NATURALIST'S MONTHLY REPORT
February 1941

000 - General

The interpretive program was carried out with the usual
assistance of the ranger staff in conducting hikes and auto
caravans. Four permanent rangers devote three or four days each
per month to interpretive work. It is obvious then that the
naturalist staff is inadequate to handle the year-round interpretive
program.

Ranger Schulz has been assisting the Park Naturalist
three weeks out of each month for the past two months. This has
made it possible to accomplish work that could not be done other-
wise.

100 - Administration

110 - Special activities, conferences.

The Park Naturalist attended two meetings of the Hilo
Toastmasters Club. Ranger Olson and the Park Naturalist continued
attending the class in Hawaiian language conducted in Hilo.

One day was spent in conference with Acting Superintendent
Noomaw on the 1943 estimate. This was completed during the month.

400 - Interpretation

410 - Lectures, guide service, and interpretational contacts.

The following special parties were given service:

Admiral and Mrs. Richardson: 14
Garden Club from Mainland: 225
Hilo Bus Company Employees: 17
Nisei Camera Club of Hilo: 24
Boxers from Maui Island: 30
Y. M. C. A. from Hilo: 43
Pearl Harbor Office Employees: 12
Lahainaluna Basketball Team: 21
Lanai High School Basketball Team: 40
Kauai Y. M. C. A.: 40
410 - Statistical Report - included.

420 - Museum Activities and Exhibits:
The painting of the Hawaii Island relief model continued.
A start was made in preparing the final museum exhibit plan.

430 - Research and Observation:
C.C.C. Senior Wildlife Foreman, Paul H. Baldwin
continued his environmental studies of birds, directing his effort
mostly toward gathering and breeding studies underway. The Park
Naturalist assisted in getting photographs of None (Hawaiian Goose)
at Shipman's Ranch. (See Baldwin's monthly report for full account
of his work.)

470 - Photography and other visual aids:
A total of 26 man days were spent on photography and
activities incidental to it. Most of this time was given to
cataloging the park negatives, which job is about 80% complete.
Some professional type Kodachrome was exposed but it has not yet
been processed.

500 - Use of Park Facilities

510 -
Contacts in relation to travel remained the same as the
previous month.

Projects planned for March
Negative cataloging will be completed. Work will be
continued on the relief model and museum exhibit plan.

* * * * * * * * * * * * * *
MONTHLY STATISTICAL REPORT OF INTERPRETIVE CONTACTS
IN SCENIC OR SCIENTIFIC AREAS
Hawaii National Park

Name of Area

<table>
<thead>
<tr>
<th>Number of Persons Engaged in Interpretive Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Permanent</td>
</tr>
<tr>
<td>-----------</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Temporary</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Month</th>
<th>Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>February</td>
<td>1941</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CONDUCTED TRIPS</th>
<th>No.</th>
<th>Attend.</th>
<th>Duration*</th>
<th>V.P.H.**</th>
</tr>
</thead>
<tbody>
<tr>
<td>Auto Caravans</td>
<td>13</td>
<td>245</td>
<td>2 hours</td>
<td>495</td>
</tr>
<tr>
<td>Hiking Trips</td>
<td>9</td>
<td>108</td>
<td>3 hours</td>
<td>505</td>
</tr>
<tr>
<td>Ruins</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>*List other types</td>
<td>Total</td>
<td>21</td>
<td>350</td>
<td>XXX</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>LECTURES</th>
<th>No.</th>
<th>Attend.</th>
<th>Duration*</th>
<th>V.P.H.**</th>
</tr>
</thead>
<tbody>
<tr>
<td>Campfire</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hotel or Lodge</td>
<td></td>
<td>13</td>
<td>592</td>
<td>3/4 hour</td>
</tr>
<tr>
<td>Museum</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Outside of Park</td>
<td></td>
<td>13</td>
<td>592</td>
<td>3/4 hour</td>
</tr>
<tr>
<td>Special** Kilauea Military Camp</td>
<td>6</td>
<td>500</td>
<td>1/2 hour</td>
<td>100</td>
</tr>
<tr>
<td>**Includes all other types</td>
<td>Total</td>
<td>19</td>
<td>592</td>
<td>XXX</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ATTENDED INTERPRETIVE STATIONS &amp; MUSEUMS</th>
<th>Name of Station</th>
</tr>
</thead>
<tbody>
<tr>
<td>U.S. National Museum</td>
<td>1,615</td>
</tr>
<tr>
<td>1/4 hour</td>
<td>405</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>List by name and type</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1,615</td>
</tr>
<tr>
<td>XXX</td>
<td>405</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>UNATTENDED INTERPRETIVE STATIONS</th>
<th>Name of Station, Nature Trail, etc.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Halemaumau Crater</td>
<td>4,000</td>
</tr>
<tr>
<td>1/4 hour</td>
<td>1,000</td>
</tr>
<tr>
<td>Kipuka Faunuu - Crater and Nature Trail</td>
<td>4,000</td>
</tr>
<tr>
<td>Love Tunnel Crater</td>
<td>2,000</td>
</tr>
<tr>
<td>1/4 hour</td>
<td>700</td>
</tr>
<tr>
<td>Makahui Crater - Crater</td>
<td>2,000</td>
</tr>
<tr>
<td>1/4 hour</td>
<td>700</td>
</tr>
<tr>
<td>List by name and type</td>
<td>11,000</td>
</tr>
<tr>
<td>XXX</td>
<td>5,200</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>BROADCASTS</th>
<th>Total Contacts</th>
<th>Total V.P.H.</th>
<th>Total Visitors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Station</td>
<td>Subject</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Name: Gunnar C. Ferguson  
Title: Chief Naturalist

MAIL ATTENTION NATURALIST DIVISION, NATIONAL PARK SERVICE, WASHINGTON, D.C., 20240, IN TIME TO ARRIVE ON OR BEFORE THE TENTH OF THE MONTH FOLLOWING THE ONE REPORTED ON.

* AVERAGE DURATION OF ACTIVITY.
** THIS COLUMN REPRESENTS VISITOR PARTICIPATION HOURS. THE FIGURE IS OBTAINED BY MULTIPLYING THE VISITOR ATTENDANCE BY THE AVERAGE DURATION OF THE CONTACT; I.E., THE AVERAGE TIME DEVOTED TO THE TRIP, LECTURE, MUSEUM VISIT, OR USE OF INTERPRETIVE STATIONS.
Offered free each week to the visiting public.

MONDAY: 9:30 a.m. - KIPUKA PUAULU NATURE WALK - Meet at Kipuka Puaulu (Bird Park) for a delightful easy walk of 1.2 miles round trip.

7:30 p.m. - March 10 and 24
"KRKATAVA," the impressive sound film of the eruption of the famous volcano Krakatoa. Free at Kilauea Military Camp Theatre.

WEDNESDAY: 8:15 a.m. - PARK TOUR - Auto caravan assembles at Lava Tube. Trip includes Chain-of-Craters, Halemaumau, and Uwekahuna Museum for lecture and movies.

10:30 a.m. - LECTURE AND MOVIES at Uwekahuna Museum.

FRIDAY: 8:30 a.m. - March 7 and 21
HIKE TO PULU FACTORY, NAPAU CRATER AND LAVA TREES - Start from Volcano House and Military Camp by automobile.

8:30 a.m. - March 14 and 28
HIKE TO 1790 FOOTPRINTS AND MAUNA IKI. Start is made from Volcano House and Military Camp by automobile.

SATURDAY: 8:15 a.m. - PARK TOUR - A short caravan that includes the Lava Tube, Halemaumau and lecture and movies at Uwekahuna Museum. Start from Volcano House.

10:00 a.m. - LECTURE AND MOVIES at Uwekahuna Museum - A general lecture on the park and movies of the recent eruption.

SUNDAY: 9:30 a.m. - MAUNA LOA TRUCK TRAIL AUTO CARAVAN - Meet at Kipuka Puaulu (Bird Park) parking area for a 20-mile round trip drive to 6,700 foot elevation.

Museum open daily 8:00 a.m. to 3:30 p.m., Sundays 9:00 a.m. to 4:00 p.m.

SPECIAL GUIDED TRIPS

Special Guided Trips for parties of 5 or more persons may be arranged by submitting requests to the Superintendent one day in advance.

Edward G. Wingate
Superintendent

Gunnar O. Fagerlund
Assistant Park Naturalist
MEMORANDUM FOR THE SUPERINTENDENT,

THROUGH THE CAMP DIRECTOR.

SUBJECT: MONTHLY REPORT ON BIRD CONSERVATION WORK
FOR FEBRUARY 1941.

The main effort of the work this month was to get
nesting and breeding studies underway. Evidence that
the breeding season has started here was the finding of
fledged Iiwi and Apapane in the forests. An Iiwi nest
with two nestlings was located in Kipuka Kulalo at
5500 feet, an Apapane nest with one nearly grown nest-
ing was found at 6250 feet, and a second Apapane nest
was located in an earlier stage, so that egg laying,
incubation, and hatching could be followed. Other species
were not found to be nesting at this early date. Ama-
kihi trapping, banding, and observing were continued
through the month. Important field notes on many de-
tails of the behavior of these and other species were
obtained.

Photographs were taken of environmental subjects
for use in population and life history studies. Per-
mission to take pictures of young Nene at Shipman's
ranch was arranged for, and pictures were secured in
cooperation with the Naturalist. The Iiwi nest men-
tioned above was photographed. A letter was written to
Joseph Dixon requesting negatives or copies of photo-
graphs on file in the Wildlife Division showing Alaskan
breeding habitats of the Kolea, Akeake, and Uili.

Essential references on analysis of population
dynamics and environmental relations obtained from the
libraries of the Bishop Museum and University of Hawaii
were read. Further planning for life history and pop-
ulation studies was done. Material for an umbrella type
observing blind was assembled. A healthy Kolea with one
wing chewed off by a cat or mongoose was caught and has been successfully kept for over two weeks on a diet of earthworms and ground meat. Molting began in the latter part of February in this individual and is being studied.

Census counts were taken regularly at the various established plots. Photographs showing environmental conditions at certain census plots were taken.

Three quail stomachs were collected for analysis of the yearly cycle of food. A letter was written to Clarence Cottam of the Fish and Wildlife Service about quail stomachs.

A letter was received from Don R. Coburn, In Charge, Wildlife Disease Laboratory at Bowie, Maryland, Fish and Wildlife Service, in regard to specimens he had received for study from the Hawaii National Park. He reported on the condition of bumblefoot only at this time, saying inspection of the blood slides was as yet not complete. This letter was answered, and he was given more information about the bumblefoot problem. The suggestion was made that if feasible laboratory culture be made of the local bumblefoot organism in order that something may be learned of its viability, effects on the host, and means of transmission and perpetuation in the Hawaiian forests.

Further evidence of the seriousness of bumblefoot in the Amakihi was found.

It was definitely found that the range of the Akekeke has now become restricted. Forty years ago this bird was a common visitor to the Kilauea Crater, but it has not been recorded from this vicinity for a long time. During the past two months reconnaissance records have been obtained which show that the Akekeke occurs at least at the following places: Kaalualu (Baldwin), Keau (Baldwin), coastal region between Apua and Kalapana (Olson), and in the Humuula gap in the vicinity of the Humuula sheep station (Baldwin). Thus, while the bird still frequents this island, it no longer comes to the uplands in the national park (Donaghho reported it from Keawewai but this has not as yet been verified). Greater rainfall at Humuula (and Keawewai) may make for more attractive fields to the Akekeke than in less humid areas, such as Kipuka Kulalio. This matter should be borne in mind in environmental analysis.

At Kaalualu 500 Kolea, 30 Akekeke, and 2 Ulili were counted at one time on February 7th. This is evidently the most favorable locality for shore birds in the general region. There is no place so favorable on the shore-
line now included within the national park or on the entire island, in all probability. While 500 birds in several hundred square yards is an amazing number of Kolea to be seen in these days, in former times the numbers were far greater. Territorial legislation has provided for complete protection for these birds for the past year and a half, in order that they might be helped to increase in number. The presence of .22 shells and old shot cartridges at Kaalualu indicated that law enforcement was badly needed there. Kolea were netted at their roosts at night in former days. Whether this practice continues at Kaalualu at present we cannot say. Mention is made of this matter here so that if the chance should arise at any future time for the park service to acquire or establish protection over especially valuable localities of bird concentration along the shores, Kaalualu could be given first consideration.

Small numbers of Kolea were seen at Ninole and Keaau, though they were numerous in the Humuula gap and higher slopes of Mauna Kea in early January.

Mimeographing of the checklist was completed with CCC help, and copies were sent out by the Acting Superintendent with letters. Additional letters were written by the Wildlife Foreman to Cahalane, Lamb, Greenway, and Bryan.

Fifteen goats were seen defoliating young Koa in Kipuka Kulalio at 6000 feet along the truck trail, and a few head of cattle were heard just to the east of the twin craters in the deep forest.

Respectfully submitted,

Paul H. Baldwin
Senior Foreman (Wildlife) CCC

Paul H. Baldwin
### DISTRIBUTION OF WORK ON PROJECTS BY DAYS

<table>
<thead>
<tr>
<th>Date</th>
<th>Census</th>
<th>Life History</th>
<th>Parasites and Diseases</th>
<th>Reconnaissance</th>
<th>Reports</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feb.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
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<td></td>
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</tr>
<tr>
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<td>x</td>
<td>8</td>
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<td>x</td>
<td>8</td>
</tr>
<tr>
<td>5</td>
<td>x</td>
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Memorandum for the Superintendent:

Subject: Chief Ranger's report for February.

The Chief Ranger's report for the month of February is as follows:

610 - General: All work was confined to normal routine for the month and no outstanding event is listed. A definite fume column was observed over the summit crater of Mauna Loa during the late afternoon of the 11th. Our water supply problem is increasing in importance due to the continued drought. The hauling of water is now in progress for all units in the area with the exception of the Volcano House.

020 - General weather conditions: Rainfall for the month was 2.22 inches. Rainfall for the period, January 1 to date was 4.05 inches.

210 - Maintenance: Routine maintenance of telephone lines, instruments, and traffic counters was carried out during the month. A considerable number of signs were replaced and new ones were erected.

410 - Lecture and guide service: The following public contacts were made by members of the ranger staff:

13 park tours for 238 persons.
8 hikes for 102 persons.
7 lectures for 177 persons.
1 showing of Krakatoa for 61 persons.
1 orientation lecture at ENO for 49 persons.
Increase or decrease in travel: Figures for the month show an increase of approximately 1500 persons as compared with those for January. This is classed as a normal seasonal fluctuation.

Visitors: No visitors of note were contacted during the month. Special visitor groups included 43 persons from a group of Pearl Harbor civilian employees.

Patrols were made to Napeu, Hilina Pali, and the seacoast area during the month. Ranger Olson made a trip into the lands of Apeu, Kahus, and Kealakomo during the month. Ranger Miller spent three days in this area, accompanied by Jr. Park Warden Medeiros. Ranger Schulz made a trip into Hauaopuhi Crater.

Ninety two goats and three pigs were destroyed during the month.

Considerable time was spent on the annual property inventory and it is nearing completion. Meetings of the Survey Board were held during the month and all necessary reports were prepared. Safety meetings were attended during the month. Two motorists were assisted.

The sign shop was moved from the fire warehouse to the new quarters in the garage.

Seventy five coconuts were planted in the seacoast area during the month.

Park Ranger Bjort was a visitor at headquarters from the 19th. to the 23rd. It is understood that Ranger in Charge Poweru has been ordered to report for military duty effective March 1.

Four members of the Hilo Police Force spent a night in the forested area makai of Puu Huluhulu when they were unable to return from a pig hunting trip due to darkness. No one was injured and they were able to return to their car about 10:00 a.m. on the following day.
620 - Police protection: Some time was spent in the investigation of a gang which was persecuting enrollee members of the 666 Camp. The culprits are now in jail and formal charges have been filed by the Camp Director.

650 - Building fire protection: Fire drills were held at the Volcano House and CCC Camp during the month.

680 - Accidents: Two automobile accidents were investigated during the month and separate reports have been submitted.

690 - Public Health: Samples were taken of the Park water supply during the month and sent to Hilo for testing by the Territorial Board of Health.

[Signature]

Joseph H. Christ,
Chief Ranger.
Memorandum to Superintendent E. G. Wingate
through office of Chief Ranger J. H. Christ.

Enclosed are the monthly travel report, narrative report,
information for FPU-1, and the Ranger Station and Observatory
1008-Met'l. reports.

Dr. and Mrs. Powers are spending a few days in the Crater
with Major and Mrs. Thorpe.

Frank A. Hjort
Park Ranger
Memorandum to Superintendent E. G. Wingate through office of Chief Ranger J. H. Christ.

000 General
010 Introduction

Water shortage has threatened the CCC Camp at Haleakala. Rain has been scarce even in "Kona" weather. The winds on top and at the Ranger Station have come from all points of the compass but failed to produce sufficient moisture.

Park Ranger Frank Hjort made a trip to Headquarters on Hawaii and remained for five days, returning to Haleakala Section on Maui on the 24th. The purpose of the trip was to acquaint Ranger Hjort with Park personnel as well as to study methods of contact with visitors and to learn more of Hawaii National Park.

020 General Weather Conditions

At Pakaoao Observatory the winds have been variable with considerable west winds of high velocities. An all time low was reached in temperature when a minimum of 18°F was recorded on the 9th. The maximum for the month was 60° which occurred on both the 4th and 22nd. Rain fell on three days to total 0.06 inches. There were 15 clear days, 6 partly cloudy, and 4 cloudy. The entire Crater was white with frost on the morning of the 16th.

At the Ranger Station the minimum for the month hit a low of 31°F on the 8th while the maximum was 73° on the 4th. 14 clear, 2 partly cloudy, and 5 cloudy days were recorded. There were 4 days with rain which totaled 1.10 inches. On the 10th frost was seen as low as the 4000 ft. level.
220 Maintenance, Improvements and New Construction

220 Maintenance

The CCC boys policed and cleaned about 22 miles of boundary fire-break this month and also rebuilt about 3 miles of trail, all of which was outside the Crater.

220 Improvements

Sam Milne, CCC foreman, and the boys rearranged the supply room, adding more shelf space and sprucing it up a bit till it now has a neat, convenient, store-like appearance.

230 New Construction

The Ranger Quarter garage was finished the last of the month and is a great improvement to our station.

300 Activities of Other Agencies in the Park

310 Public Service Contractors

316 Modification of existing contracts.

Mr. and Mrs. Kirkcile who for the past year have operated the Grand Hotel concession at Pahana Observatory left the Park the last of the month. Mr. Ogilvie of the Maui Grand Hotel has not yet replaced them but expects to do so soon.

500 Use of Park Facilities by the Public

This travel year to date is 206 cars less than at this time last year but this month showed an increase of 75 cars over this month last year. The snow storm in January last year caused that month to be unusually high.

The Maui Grand Hotel at Wailuku reports its best tourist month on record for this month.

640 Destruction of Predatory Animals

22 goats were killed in the Park this month. 18 were billies and 4 were nanny.
Data for FPU-1 report from Haleakala.

Visitors:
From out of the territory--222
From the territory--1583

Campers: 23 (Spent 25 nights in rest houses)

Sightseers: 1787
MEMORANDUM TO THE SUPERINTENDENT THROUGH THE CHIEF RANGER

My ranger's narrative report for the month of February follows:

Contacts were as follows:

2/2/41, Mauna Loa Tour, 3 persons for 2 hours or 757VPH.
2/8/41, Inter-Island Tour, 17 persons for 1½ hours or 562VPH.
2/10/41, Bird Park Hike, 12 persons for 1½ hours or 182VPH.
2/12/41, EXO Tour, 18 persons for 2 hours or 333VPH.
2/14/41, Mauna Kea Hike, 22 persons for 3½ hours or 777VPH.
2/22/41, Pearl Harbor Office Employees' Tour, 43 persons for 1¾ hours or 844VPH.
2/23/41, EXO Tour for 14 persons for 2¼ hours or 518VPH.

Total, 7 tours and hikes, 126 persons, 262 VPH.

February 4th to 7th were spent at the seacoast in the lands of Aua, Kahua and Kealakomo. A separate and detailed report has been submitted covering this.

All available spare time during the month has been spent on inventories. I completed the tool and equipment inventory and submitted a report February 18th. Since that time I have worked on the inventory of Office Equipment.

Some time was spent checking for radio interference on the SW side of the Utility Area road. The noise ceased without the offending noise becoming known. It is suggested that the following work be done to clear up known static producing interference: Ground the motor of the refrigerator in Qtrs. #17 (Wingate), to its frame.

Tape a worn place in the wire to the motor in the refrigerator in Qtrs. #1 (Christ). Ground the EX cable at Qtrs. #2 (Higashida).

Although not an item of radio interference, a switch should be installed on the heat circuit at Qtrs. #3 (Fujimoto). At present, there is no way to shut off this 220 volt power except by pulling out the fuses, a very dangerous procedure as one is standing on damp earth.

One night and parts of several days were spent investigating a gang which was persecuting CCC boys. The culprits are now in jail and Mr. Huston is pressing charges.

Gunder E. Olson, Ranger.
UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
HAWAII NATIONAL PARK
HAWAII

March 3, 1941

Memorandum for the Superintendent through the Chief Ranger:

Subject: Narrative report for February.

Routine patrol, flag, and switchboard assignments were carried out during the month. Two park tours and one hike were conducted for a total of 28 persons.

Items of work accomplished are as follows: a cross in line #10 near Kipuka Ei was discovered and repaired. A broken wire in the battery circuit of the office switchboard was repaired and new batteries were installed. Mr. Moomaw's office telephone was repaired. A broken wire in the battery circuit of Mr. Chotiss's office telephone was repaired. New batteries were placed in the traffic counters. The contact points of these instruments were cleaned and adjusted. The telephone cable leading from the Observatory to the Photo Studio was reported to be out of order by members of the Observatory staff. The trouble was caused by a broken cable which had been sheared off by the scarifier when it was being used in the area. A temporary splice was made and the circuit placed in operation. Permanent repairs will be made by inserting a lead sleeve. A faulty transmitter in Mr. Finch's telephone was repaired. New burner units were installed in the range in Quarters #1.

Building inspection work was carried on as usual during the month. Some assistance was given the Project Superintendent with various matters connected with the materials purchased for the Observatory and Naturalist building.

Engineering assistance was given the CCC organization in carrying out the survey for the new Volcano House road and parking areas. Grades were established for a parking strip at the rear of the kitchen at the CCC Camp. The proper elevations and building lines for the new Volcano House were checked over with the
contractor and assistance was given in determining the proper location of the grading lines for this structure.

A wreck on the Manaloha Highway near the Kau entrance to the park was investigated on the 14th, and a separate report has been submitted.

Several Board of Survey reports were prepared and a check of the property inventory of the Haleakala Section has been practically completed.

Arthur L. Jess,
Park Ranger.
MEMORANDUM FOR THE SUPERINTENDENT

Through the office of the CHIEF RANGER

SUBJECT: Regular Monthly Report of Duties Performed by Ranger F. E. Schulz, Month of February, 1941

Ranger Duties:

One week on flag and night check.

Hawaiian Volcano Observatory Duties: were executed during the first week of the month as follows:
- Drafted 7-day mean HVO tilt chart for the year 1941.
- Plotted: time corrections for January
- Bedch tilt for January
- Crack changes for January
- SE Pit tilt for January
- WPit tilt for January
- Interpreted the current seismograms and with Asst Geologist Wasecha's help also worked out the records from Kona, Pit, Uwekahuna, and Hilo, and Mauna Loa seismographs for the month of January.
- Measured cracks one day and worked up data. Met Dr. Ballard at the dock and assisted in the special gas collections he made at the Sippur Banks.
- Made out HVO weather report for the month of January (helped Mr. Finch to do so).
- Half day spent with Wasecha and Loucks doing precise leveling.

Interpretive and Office Duties:
- 1 day was spent finishing the physical inventory of museum and naturalist equipment. The fourth and last story for the Paradise of the Pacific was completed.
- Approximately 4 days were spent on duty at the Museum.
- Approximately 2 days were spent painting culture on the relief map of Hawaii at Uwekahuna.
- 6 days were spent with G. O. Fagerlund on the negative file. Besides personal contacts at the museum, the following regular contacts were made:
  - General lectures: 7 to 177 persons
  - Ex M. O. orientation lectures: 1 to 68 persons
  - Breakout introductions: 1 to 81
  - Total lectures: 9 to 257 persons for 191 V.P.H.
  - Park tours: 4 for 62 persons
  - Hiking trips: 2 for 224 persons
- Total field trips: 6 for 106 persons for 224 V.P.H.
Wildlife and Nat. Phenomena:

On own time in company of Waemehe and Lo. hiked down into Hakapuhi. It was found that exotics were (are) practically absent, and that a wide variety of native plants flourish in the diverse habitats found there. Sandalwood is common on the "plateau"; the brochantite and white deposits were examined. The trip was a thoroughly enjoyable and interesting one.

Days Off:

61/2 of a possible 7 days off were taken as follows:
Whole days: February 3, 21, 18, 23, and 24
Half days: February 1, 22, 25.

Paul E. Schulz
Park Ranger

P.S. Attended 2 meeting of the Toastmasters Club.
Memorandum for the superintendent

Through the office of the Chief Ranger

Subject: Ranger report for February 1941

Ranger duties preformed Routine activities were regular turn at flag duty, night check, patrol, switchboard, etc. In addition to my itinerary I made a three day inspection trip by pack train, with Antone Maderos-Jr Park Warden to the park coast area of Apua, Mahu and Halepe. I also painted many miscellaneous signs in the park paint shop. Several days were utilized at doing drafting work in the Rangers office.

Naturalist activities

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Miscellaneous activities Attended evening classes in Red Cross First Aid, totaling 10 hours, was present and took part in two meetings of the "Toastmasters Club" in Hilo. I have also spent considerable time evenings in studying and collecting information on "Hawaiian Mythology" for possible future lectures.

Comments or Suggestions Continuation of public speaking classes for members of park staff.

Respectfully submitted,

Charles J. Miller
Park Ranger
Memorandum for the Superintendent:


Chief Ranger Christ and I investigated an automobile accident near the Kau entrance on Friday, February 14. We arrived on the scene at 11:50 a.m. and found that a collision had occurred between a Buick sedan, license #45E-2540, and a K, W, O, water truck. The sedan was traveling toward Hilo and the truck in the opposite direction.

The drivers were questioned and no one would assume the responsibility for the accident. It appeared that the driver of the sedan may have swung in on the curve and struck the rear wheel of the truck, tearing off the running board and rear fender. No damage was done to the truck. Both drivers stated that they were traveling about 30 miles per hour, were on their own side of the road, and stopped at once after the impact. No one was injured. The sky was partly overcast and the roadway was dry.

Private Granito was the driver of the KWC truck.

The sedan was driven by Estequio Adami of Pahala, who carries a Territorial drivers license #19136. This car is registered to Maximo Belaras of Pahala, and the legal owner is the Hilo Motors, Ltd. Insurance is carried on this car.

Arthur L. Jones,
Park Ranger.
March 4, 1941

Memo for the Superintendent:

Subject: Park Foreman's Monthly report on activities of Maintenance Division during month of February, 1941.

Routine maintenance work such as sanitation, garbage disposal, roadside clean-up, pumping water, cutting and hauling wood was carried out.

Lawns. The lawns at all residences were cut once during the month.

Roads. Grass on road shoulders was cut. The grass encroaching the pavement was sprayed with poison.

Repaired door on gas collector house at Sulphur Bank.

Repaired and painted living room at Quarters #16. Also varnished the floors.

Fitted Spectroscope Box for Dr. Ballard. Built several carrying boxes for gas collector tubes.

On February 15th started to haul water from Mt. View.

Started construction on new bunkers project now 50% complete.

Cleaned and flushed and refilled water tank at Quarters #7. Installed drain valve in same.

Repaired and installed new washers in leaky faucets at Quarters #16, #19 and #27.

Respectfully submitted,

Herbert Brick
Foreman of Maintenance & Construction
UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE-

FILE NO.

MONTHLY REPORT
JANUARY 1941

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.
MEMORANDUM FOR THE DIRECTOR:

There follows the report of activities in this park during January.

000 - General

010 - Introduction

Superintendent Wingate left for the superintendents' conference on the 5th, so most of the administrative staff was busy the first week preparing material for him to take to the Washington and Regional offices. Shortly after Mr. Wingate departed instructions for preparing the 1943 preliminary estimates were received. At the close of the month this work was about 35% complete.

Satisfactory progress has been made on the 000 program considering the company's strength, which did not exceed 137 throughout the month. Most of the work has been concentrated on the Volcano Observatory and Naturalist Building, the grounds of the new Volcano House and the Hilina Falls truck trail.

Bids for the construction of the new Volcano House were opened in Honolulu on the 11th and contract awarded to H. Issen of Hilo for $76,260, plus $1,349.55 for construction of a storage basement and $123.05 for a transformer vault; construction to begin on February 1. However, there was no sign of the contractors moving on to the job at the close of business on February 5.

The acting superintendent called a meeting of the local Emergency Police Guard on the 20th in order to discuss several local matters, personal changes, etc.

The Hilo Federal Business Association elected the acting superintendent president for the next year. Mr. Charles Auld of the Bureau of Entomology and Plant Quarantine was elected vice-president and Mr. Carl A. Bowker of the WPA as secretary-treasurer.
The water situation is very critical. A sub-normal rainfall throughout January has resulted in the complete exhaustion of the reserve water. A minimum of 5" is needed at once to fill our storage tanks.

020 - General Weather Conditions

Rainfall at Kilauea headquarters was 1.84", at the Haleakala summit resthouse 0.60 inch and at the Haleakala ranger station 1.94". Total precipitation at Kilauea during the 1940 calendar year was 75.71". The yearly average is 96.91", which gives us a deficiency of 21.20" for the year. Maximum and minimum temperatures at Kilauea were 78 and 49 degrees; and maximum wind velocity 22 mph on the 7th. Due to continued dry weather it was necessary to obtain 50,000 gallons of water from the Volcano House tanks.

100 - administration

110 - Superintendent’s Special Activities

Superintendent Wingate left for the superintendent’s conference held in Washington DC, on the 8th. On the 11th the acting superintendent attended the monthly meeting of the Hawaii Highway Traffic Safety Commission; on the 26th the Federal Business Association meeting in Hilo; and on the 29th the Hawaii Natural History Association meeting, also in Hilo.

160 - General Publicity

At the request of the editor of the Paradise of the Pacific magazine, Ranger Schult submitted three stories for future publication in that magazine.

The opening of the bids and awarding of the contract for the construction of the new Volcano House received considerable newspaper publicity throughout the territory.

200 - Maintenance, New Construction and Improvements

220 - New Construction

Work on the Volcano Observatory and Naturalist Building, CCO job 54, was reported 30% complete; that on the Hilo Pali Auto Trail, CCO job 2-4 60% complete; and the minor road and parking area - CCO jobs 58 and 64 - 40% and 30% completed.

An appropriation of $3,600 from the roads and trails fund for purchase of materials for the minor roads and parking areas in connection with the new Volcano House and Volcano Observatory and Naturalist Building, was approved.
230 — Special Improvement Activities

CCC — Sub-foreman Joseph R. Markiewitch resigned effective close December 26, in order to accept employment with the US Navy as a civilian employee at Pearl Harbor.

Three enrollees from this camp won championships in their classes at the Big Island amateur boxing tournament — lightweight, Terutoshi Ogawa; welterweight, Herbert Lum King; and middleweight, Joseph Moore.

In January 19 new enrollees were taken in and 21 discharges given; 18 honorable, 1 medical and 2 dismissals for desertion. There were no lost-time accidents and only 15 man-days lost due to medical causes. The project superintendent reported a daily average of 97 enrollees released during the 22 working days. At Haleakala there were 76 man-days worked, with most of the work being on job 225 — Road and Trail Maintenance. Work was started on the foundation of the garage at the ranger’s quarters, job 55-B. The foreman also reports dry weather with a shortage of water.

300 — Activities of Other Agencies in the Park

310 — Park Operators

Approval was received of the addition of 3.68 acres to the Volcano House lease, for the location of the new hotel.

The 1941 schedules of rates for the Volcano House and K. Hatayama Bus Service were submitted for approval.

320 — Cooperating Governmental Agencies

Lt. Col. Stockbridge Hilton, who has been commanding officer at Kiluaea Military Camp for the past year, was relieved by Major E.P. Conroy in January. Colonel Hilton is being transferred to the mainland.

400 — Interpretation

410 — Lecture and Guide Service

In addition to regular lectures, hikes, etc., five special lectures were given at various schools. One lecture was also given on board the USS Argus.

420 — Research and Observation

430 — Botany: One hundred coconuts and 10 mamani seedlings were planted at various places along the seacoast area of the park.
433 - Zoology: Senior Wildlife Foreman Baldwin states that new traps were put into operation to continue banding of the birds in the mapped area, for life-history observations. Census counts were taken from Kilauea Fali up to the 7500 foot elevation on Muna Loa; and the general report on populations trends in the Kilauea-Muna Loa section will be written when sufficient data has been accumulated. Further indications of the importance of bumble-foot disease in the wild population were obtained. It was found that the disease may appear and develop to serious proportions in less than 30 days by observations on a banded individual which developed the condition. The Checklist of birds in this area has been completed and stencils cut. It will be mimeographed and sent out during the early part of February.

433 - Geology: There were pronounced land slides at Halekāmākū on January 30, some of which made conspicuous dust clouds over the southwest part of the Kilauea floor. The roar from one of the slides was heard in the park headquarters area. Northerly tilt continued until the last week in the month, when somewhat later than usual, the normal SW tilt commenced. For the year there was an accumulation of NE tilt. This indicates that the volcano flow may have been reached in 1939. Scientist R.H. Finch spent a considerable portion of the month in the preparation of an article entitled "Engulfment at Kilauea." The Volcano Letter for October-December 1940 was forwarded the publisher on January 30. Assistant Geologist Wessoch, in company with Park Foreman Quick, made a trip to Halekāmākū (on the north slope of Muna Loa) for the purpose of inspecting the site for a proposed seismograph station. Ranger Salzmann continued to assist the Observatory staff.

500 - Use of Park Facilities by the Public

510 - Increase or Decrease in Travel

Total travel to the Kilauea section amounted to 18,954 as compared with 15,763 in January 1940; and at Haleakalā there were 1515 as compared with 3170 for the same time last year.

520 - Visitors

January 23-24 - Dr. and Mrs. Walter Carter of the University of Hawaii; chairman of the Territorial Land Planning Committee.

600 - Protection

640 - Forest Fire Protection

The annual forestry report and fire atlas were completed and mailed about the middle of the month.
Building Fire Protection

A fire drill was held at the CCC camp in January and fire fighting instructions were given to the staff of the park. Regular quarterly fire inspection of buildings and property was made.

Accidents

A collision between the CCC water truck and another operated by Kilama Military Camp occurred on the Hilo road, January 24, when the Army truck attempted to pass the CCC truck and side-wiped the latter, forcing it into the ditch. The CCC truck was completely demolished and has been surveyed. Investigation proved that the driver of the Army truck was at fault, for trying to pass the CCC truck at too high a rate of speed. This same truck the week previous had had another accident, when the driver, blinded by lights of an oncoming car ran the truck off the road. Damage this time amounted to only $250 plus one day's work of the mechanic.

Public Health

Samples of the park water supply were submitted to the Territorial Board of Health for bacteriological examination and results showed that all tanks and reservoirs in the park were satisfactory for drinking water, with the exception of one. This tank has been drained and cleaned since receipt of the report.

Miscellaneous

At the regular quarterly business meeting of the Hawaiian History Association, held in Hilo January 29; Scientist R.H. Finch spoke on Volcanoes of the Pacific Northwest.

Since Superintendent Wingate was to be absent during the annual National Foundation for Infantile Paralysis campaign, he appointed CCC Camp Director Ruston to take charge of raising funds in this area.

Harry Keilihemalu, who has worked as laborer in the park in a temporary capacity for a good many years, died of a heart ailment in Hilo, January 21.
Volcano Observatory and Naturalist Building, pouring concrete for ground floor - CCC Job 54.

Site of new Volcano House, showing dirt fill - CCC Job 50.
Landscaping employees' duplex cottage - showing use of native plants - CCC job 53.

Showing progress of painting relief model of island of Hawai'i, Uwakuma Museum.
Hillside Fell truck trail, showing rock work for drain across dry wash - CCC Job No. 4.

Relevating minor road in back of administration building - CCC Job No. 85.
### TRAVEL REPORT

**Kilimanjaro Section, Hawaii** National Park for the month of **January, 1941**

<table>
<thead>
<tr>
<th></th>
<th>This Month</th>
<th>This Year To Date</th>
<th>Last Year To Date</th>
<th>Increase for Travel Year</th>
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</thead>
<tbody>
<tr>
<td><strong>PRIVATE TRANSPORTATION:</strong></td>
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<tr>
<td>Cars first entry</td>
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<tr>
<td>Cars reentry</td>
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<tr>
<td>Motorcycles</td>
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<td>Total motor vehicles</td>
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<tr>
<td>Persons entering via motor vehicles</td>
<td><strong>16,954</strong></td>
<td><strong>73,216</strong></td>
<td><strong>12,612</strong></td>
<td><strong>4,344</strong></td>
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<tr>
<td>Persons entering via other private transportation</td>
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<tr>
<td>Total persons entering via private transportation</td>
<td><strong>16,954</strong></td>
<td><strong>73,216</strong></td>
<td><strong>13,174</strong></td>
<td><strong>9,900</strong></td>
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</table>

| **OTHER TRANSPORTATION:** |          |            |                   |                         |
| Persons entering via ships |          |            |                   |                         |
| Persons entering via trains |          |            |                   |                         |
| Persons entering otherwise |          |            |                   |                         |
| Total other transportation |          |            |                   |                         |
| GRAND TOTAL ALL VISITORS | **16,954** | **73,216** | **13,174** | **9,900** |

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<th>This Year</th>
<th>Last Year</th>
<th>Increase</th>
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<tbody>
<tr>
<td>Increase</td>
<td>Number</td>
<td>Percent</td>
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</tbody>
</table>

- Automobiles in public camps during month, . . . .
- Campers in public camps during month, . . . .
UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

TRAVEL REPORT

Haleakala Section, Hawaii National Park for the month of January 1941

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<tr>
<th></th>
<th>This Month</th>
<th>This Travel Year To Date</th>
<th>Last Travel Year To Date</th>
<th>Increase for Travel Year</th>
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<td>Cars first entry</td>
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<td>654</td>
<td>1629</td>
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<tr>
<td>Persons entering via motor vehicles</td>
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<tr>
<td>Persons entering via other private transportation</td>
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<tr>
<td>Total persons entering via private transportation</td>
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<td>6230</td>
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<td><strong>OTHER TRANSPORTATION:</strong></td>
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<td>Persons entering via stages</td>
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<td>Persons entering via trains</td>
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<tr>
<td>Persons entering otherwise</td>
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<tr>
<td>Total other transportation</td>
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<tr>
<td>GRAND TOTAL ALL VISITORS</td>
<td>1515</td>
<td>6230</td>
<td>5170</td>
<td>6145</td>
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<th></th>
<th>This Year</th>
<th>Last Year</th>
<th>Increase</th>
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<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Percent</td>
<td></td>
</tr>
<tr>
<td>Automobiles in public camps during month</td>
<td>16</td>
<td>12</td>
<td>6</td>
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UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
HAWAII NATIONAL PARK
HAWAII
February 4, 1941.

REPORT OF CAMP DIRECTOR, FRANK C. HUSTON, CCC HQP, TO ACTING SUPERINTENDENT B. F. MOONAN, JR., FOR THE MONTH OF JANUARY, 1941.

During this month 19 new enrollees were taken in this camp and 21 discharges given: 18 honorable discharges, 1 medical and 2 dismissals for desertion.

There were no lost time accidents this month and only 15 man-days lost due to medical causes.

The camp has been kept clean and in good condition with little sickness.

Basketball

The recreational officers' report shows to be the leading sports activity for this month, with a boxing team making a good showing.

The safety assistants' report shows all safety regulations are being carried out and that all precautions possible for the safety of the enrollees are being followed.

Two safety and recreational meetings were held in the camp.

The report of the senior Wildlife Foreman shows continued activities in his field and office work.

The Project Superintendents' report shows a daily average of 31 enrollees released to him during the 22 working days of the month making a total of 2130 man-days worked on the projects.

Job Report:

58 - Hilina Pali Auto Trail:
112 man-days used on this project.

53 - Landscaping Employees Quarters:
227 man-days used landscaping the duplex cottage.

54 - Volcano Observatory and Naturalists Building:
745 man-days used on this job during the month.

55 - Camp Construction:
72 man-days were used on this building which is now complete.
63 - Minor Roads:
200 man-days were used on roads for the Volcano House.

64 - Parking Areas:
320 man-days were used on the parking area for the new volcano house.

74 - Cesspool - Volcano House:
93 man-days used on this project during the month.

Work continued on some 7 other projects in the Park during the month.

Haleakala Section:

No doctors' report received to-date. The Foreman in charge reports
76 man-days lost due to sickness.
375 man-days were worked on the projects, most of the work was done
on Job 225 - Road and Trail maintenance.

Job 68-1 - 53 Garage Private:
Work was started on the foundation on January 22nd.
Foreman reports dry weather with a shortage of water.

Respectfully submitted,

[Signature]

Frank C. Huston,
Camp Director, CCC HNP.
February 1, 1941

MEMORANDUM FOR THE SUPERINTENDENT:


During the month of January 1941, no activity was noted at Mauna Loa. There were pronounced land slides at Balemamu on Jan. 20, some of which made conspicuous dust clouds over the SW part of the Kilauea floor. The roar from one of the slides was heard in the Park Headquarters area. Northerly tilt continued until the last week in the month when, somewhat later than usual, the normal SW tilt commenced. For the year there was an accumulation of NE tilt. This indicates that the volcano low may have been reached in 1939.

Some of the quantitative data obtained during January is shown in the following table:

<table>
<thead>
<tr>
<th>Week Ended</th>
<th>Seismicity</th>
<th>Crack Openings</th>
<th>Seismic Disturbances</th>
</tr>
</thead>
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<tr>
<td>Jan. 5</td>
<td>2.50</td>
<td>2.5 mm. opening</td>
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<tr>
<td>12</td>
<td>1.25</td>
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<tr>
<td>19</td>
<td>6.50</td>
<td>0.0 &quot; &quot; &quot;</td>
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<tr>
<td>26</td>
<td>6.50</td>
<td>2.0 &quot; &quot; &quot;</td>
<td>18</td>
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</tbody>
</table>

Work of R. H. Finch

A considerable portion of the month was taken up in the preparation of an article entitled "Engulfment at Kilauea". This necessitated searching through many old records and making considerable computation. The Volcano Letter for October – December 1940 was forwarded to the publisher on Jan. 30. Several conferences in regard to the new observatory-naturalist building were held with Naturalist Fagerlund. Several discussions in regard to routine and policy were held with Messrs Waesche and Loucks.

Work of H. H. Waesche

The routine of tending to part of Observatory correspondence, of regular seismogram reading, tilt measurement and plotting, compilation of earthquake statistics and plotting locations, keeping daily notes, taking the daily time signal and inspection of the seismograph occupied most of Mr. Waesche's time.
Some of the special activities of Mr. Waesche in January were:

January 3  Went to the proposed Hamuula seismograph station with Mr. Quick.
8 -11 Worked on quarterly seismograph report to be published in Volcano Letter.
13 Worked on special tilt chart and attended Safety Committee.
16 Ran horizontal crater angles.
17 Ran levels with Messrs. Schulz and Loucks.
21 Ran levels on crater floor near Halemaumau.
30 Measured crater angles. Made test of tilt due to loading at pit seismograph cellar with Messrs Finch and Loucks.

Work of Renger P.E. Schulz

Changed seismographs, thermograms and barograms and helped with crack measurements. Plotted some of the tilt curves for December. Computed cumulative SE pit tilt for Sept., Oct., Nov. and Dec. 1940. Assisted in precise leveling. Made the regular monthly gas collection with Mr. Loucks. A total of 5 days were spent at the Observatory.

Work of B. J. Loucks.

A considerable portion of Mr. Loucks' time was spent in the regular routine care of the various instruments. Some of his special duties were:

January 2  Changed Bosch-Cmori driving clock 3 hours
5,6,7 Worked on parts for Mauna Loa seismograph 4 hours
7 Helped Mr. Fagerlund with pictures 2 hours
8,9,10,11,14,15 Worked on drums for seismographs 26 hours
16 Helped Mr. Waesche and Mr. Schulz run levels 6½ hours
17,18,19 Worked on Mauna Loa seismograph chronograph 10 hours
21 Helped run levels 3½ hours
22 Helped Mr. Schulz take gas sample 1 hour
22,23 Worked on repairs for rock crusher 5 hours
24,27 Finished parts for Mauna Loa seismograph 7 hours
27,28,29 Repaired Aneroid Barometer 9 hours
30 Worked on camera for Mr. Fagerlund 2 hours
30,31 Repairs for rock crusher 5 hours

R. H. Finch
Principal Scientist
UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
HAWAII NATIONAL PARK
HAWAII
February 3, 1941

MEMORANDUM FOR THE SUPERINTENDENT,
THROUGH THE CAMP DIRECTOR,

SUBJECT: MONTHLY REPORT ON BIRD CONSERVATION WORK
FOR JANUARY, 1941.

New traps received were put into operation with new colored bait pans to carry on with banding of the birds in the mapped area for life-history observations. Observations were made over the month watching for the beginnings of breeding behavior and territoriality. Two males who had held territories ever since banded, one in September, the other in November, continued to hold theirs with some modifications, though other males temporarily relinquished theirs. This and other signs indicated that the population is still shifting about to some extent. Pairing up of birds occurred noticeably in the Amakhi. On the last day of the month one female was seen in preliminary nest-building activity. Fighting and chasing were seen amongst the males. All these things indicate the awakening of breeding instinct and the beginning of reproductive activity.

Census counts were taken from Hilina Pali up to 7500 feet elevation on Mauna Loa to add to the growing stock of data on hand. Analysis of data was carried on, and the general report on populations trends in the Kilauea-Mauna Loa section of Hawaii National Park to be written when sufficient data has accumulated was planned. Data was further collected for species intensity maps.

Food content analyses were made of seven wild bird stomachs according to methods recommended by Clarence Cottam, In Charge, Food Habits Division, Fish and Wildlife Service, in his recent letter to this office. Previous records were standardized to conform to the recording system advocated by him.
Further indications of the importance of bumblefoot disease in the wild population were obtained. It was found that the disease may appear and develop to serious proportions in less than twenty days by observations on a banded individual which developed the condition. We have found the incidence in the Amakihi to be about 7%, while the incidence in the Apapane is much higher - at least 20%. Although earlier authors regarded bumblefoot as an inconsequential disease in the wild population in the Hawaiian Islands, evidence gathered here is to the contrary. It was formerly thought that few if any birds actually die from its effects. We believe that bumblefoot accounts for the death of thousands of individuals annually. An Apapane found fluttering helplessly in the grass this month had one wing completely disabled by the presence of a ball of scab on a joint of the wing, one foot missing having sluffed off just below the ankle (or "knee"), balls present on the other foot, and a ball at the base of the upper bill. The bird could neither fly nor hop. In a few hours it would have died a natural death of thirst or starvation. Kept in a cage it lived two days on fruit and sugar and water. Positive data on the causative organism, method of transmission, and susceptibility of the various birds to bumblefoot disease should be obtained.

Reconnaissance trips were made along the Puu Ob trail and to Mauna Kea to check on bird conditions and to compare local conditions with others. Shipman's ranch at Keau was visited to see his flock of Nene. A brood of young Nene is being raised, and a cross has been effected between the Nene and the Canada Goose resulting in three goslings of hybrid nature. He has 19 adult birds. It was not possible to obtain information about whether these birds leave the ranch for the mountains or not at the time.

The Checklist was completed, reviewed by E.H. Bryan, Jr., and stenciled. A delay of several weeks will probably be involved in the mimeographing.

Respectfully submitted,

Paul H. Baldwin
Senior Foreman (Wildlife) CCC
### DISTRIBUTION OF WORK ON PROJECTS BY DAYS

<table>
<thead>
<tr>
<th>Date</th>
<th>Life history</th>
<th>Food habits</th>
<th>Census</th>
<th>Reconnaissance</th>
<th>Reports</th>
<th>Hours</th>
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Memorandum for the Superintendent:

Subject: Chief Ranger's report for January.

The Chief Ranger's report of the activities of the ranger division for the month of January is as follows:

010 - General: All work was confined to normal routine and no outstanding event is listed for the month. However, our water supply is running low due to the continued dry weather and it was necessary to obtain 30,000 gallons from the Volcano House tanks. The grassland areas in the Six Tanks and Hilina Pali sections are beginning to show the effect of this drought.

020 - General weather conditions: Rainfall for the month was 1.84 ins. Rainfall for the period January 1 to December 31, 1940 was 75.71 ins. Our yearly average is 96.91 inches, which gives us a deficiency of 21.20 inches for the year.

210 - Maintenance: Routine maintenance of telephone lines and instruments, and traffic counters was carried out. Some work was done on trail maintenance and a considerable number of signs were replaced and some new ones erected.

410 - Lecture and guide service: The following public contacts were made by members of the ranger staff:

1 park tours for 225 persons.
7 hikes for 57 persons.
12 lectures for 264 persons.
5 special lectures at outside schools for 683 persons.
1 showing of Krakatoa for 65 persons.
1 orientation lecture at YMCA for 40 persons.

510 - Increase or decrease in travel: Figures for the month show an increase of 300 persons over December. This is classed as a normal fluctuation.
520 - Visitors: No visitors of note were contacted during the month. Special visitor groups included 100 men from the USS Argonne.

610 - Ranger Service: Patrols were made to Nēpu, ʻIlīna Pali, Apua, Kahne, and Koane during the month. A foot patrol was made along the Park boundary north of the headquarters area. Another foot patrol was made, covering Crockett's trail from the Summer Camp to Pūka Huluhulu, and along the old Kekahou road to the Crater Rim trail. The annual property inventory was partially completed. One hundred and four goats and 2 pigs were destroyed. Safety meetings at the CCC Camp and at headquarters were attended. One meeting of the Emergency Police Guard was held and some target practice had been done at the outdoor range and at the Badminton Court range. A meeting of the Volcano Recreation Club was held and some discussion was carried out regarding the formation of a gun club.

One hundred coconuts and ten mamani seedlings were planted at various places along the seacoast. Good progress was made at the nursery.

620 - Police protection: A disturbance at the CCC Camp was investigated on the 5th. but the offenders were out of the Park when found. They were picked up in Hilo for questioning but no formal charges were filed against them. It appears that they were two former enrollees and had entered the camp in an attempt to beat up an enrollee.

A disturbance in the "Hawaiian Village" section of the headquarters residential area was investigated on the 26th. and the offender taken to the CCC Camp and locked up for safe keeping.

640 - Forest fire protection: The annual forestry report and fire atlas were completed and mailed during the early part of the month.

650 - Building fire protection: A fire drill was held at the CCC Camp during the month and fire fighting instructions were given to the members of the Park Operator's staff. The regular quarterly fire inspection was made during the month and is covered by a separate report.
Accidents: A wreck on the Mamalahoa Highway at 25 miles Olaa occurred on the 24th. This involved CCC truck #93070 and a War Department truck from Kilauea Military Camp. A separate report is being submitted. No one was killed and only minor cuts and bruises were suffered by the occupants.

Public health: Samples were taken of the Park and CCC Camp water supplies and were sent to the Hilo Laboratory of the Territorial Board of Health for testing. The regular quarterly sanitation inspection was made for the Volcano House and CCC Camp.

Joseph H. Christ,
Chief Ranger.
Memorandum to Superintendent E. G. Wingate through office of Chief Ranger J. H. Christ

Enclosed are the weather reports, travel report, and narrative report from Haleakala Section for the month of January 1941.

Visitors for the month of January were far less than for January of last year. This is due to the fact that there was snow on the mountain for several days last year, and nearly 2000 persons visited the summit during the few days of snow last year.

K. A. Peyes
Ranger in Charge.
UNITED STATES DEPARTMENT OF THE INTERIOR NATIONAL PARK SERVICE HAWAII NATIONAL PARK
HAWAII Wailuku, Maui January 31, 1941

Narrative report for month of January from Haleakala Section.

300 General

010. There have been more cold nights this month than have occurred since records were started. Minimum at the Ranger Station was below 45 for 18 nights and was below 40 on 5 of these nights. There has been much "Kona" weather but very little rain.

020. There have been 25 clear days, 3 partly cloudy, and 3 cloudy days at the Ranger Station. Total rain at Ranger Station was 1.94 inches. Minimum temperature was 37 on Jan. 14th, and the maximum was 71 on the 26th. At Paliouao Observatory there were 21 clear days, 8 partly cloudy, and 4 cloudy days. Rain at the summit was 0.60; minimum temperature was 29 on the 13th and 14th, and maximum was 63 on the 25th.

200 Maintenance, Improvements, and New Construction.

210. A good deal of re-building to facilitate drainage has been done during the month by CCC enrollees on the trail from the Park entrance to Halemaumau. A little time has also been spent pulling exotic weeds along the road and trails in the Park.

220. Work has been started by CCC enrollees on a two-car garage at the Ranger Quarters. Excavation is completed, the foundation for the walls is completed, and the floor is almost complete. Studding and rafters have been sawed ready to start work next month on raising the building.

500 Use of Park facilities by the public.

510. Travel for the month was slightly less than for December, there having been less than 100 visitors from out of the Territory. Travel for January last year was twice that of this current month, because of a snow fall last year that attracted over two thousand visitors from the Island.

540. Eighteen persons spent 22 nights in crater cabins during January.

600 Protection.

640. Twenty one goats, 14 male and 7 female, were destroyed this month.

900 Miscellaneous.

Ranger Powers and Ranger Hjort were guests at a dinner meeting of the Junior Chamber of Commerce of Maui, on Jan. 22. Powers gave a short talk and most of the members present entered into a lively discussion of Haleakala Volcano and the National Park.
Data for F.P.U.-1 report from Haleakala.

Visitors:
From out of territory 91
From out islands 520
From Maui 224
Total 1515

Campers 18 spent 22 nights in cabins
Sightseers 1497.
MEMORANDUM FOR THE SUPERINTENDENT THROUGH THE CHIEF RANGER.

The following report covers my ranger's activities for the month of January, 1941:

Contacts:
1/10/41, Napau and Java Trees hike, 8 persons.
1/12/41, Bird Park hike, 9 persons.
1/14/41, Pepeekeo School, 3 volcano picture and talks, 500 persons.
1/15/41, Waiakeaewae School, 2 volcano picture and talks, 333 persons.
1/17/41, Umau Tri Hike, 13 persons.
1/18/41, Inter Island Tour, 18 persons.
1/22/41, EEU Tour, 2 persons.
1/22/41, Tour for Dr. and Mrs. Carter, 2 persons.
1/23/41, Tour for USS Argonne, 100 persons.

Miscellaneous:
Annual leave was taken January 1 to 5 inclusive.
Quarterly fire inspection was taken and a report submitted.
A newspaper article on the Kalapana Extension was prepared and run in the Sunday edition of the Hilo Tribune Herald.
Hawaiian Language classes in Hilo were attended twice a week during the month on own time and with own transportation.
A foot patrol was made of the boundary north of park headquarters.
A trip to Hilina Pali was made and 4 goats were killed.
A physical inventory of property in and controlled by the park warehouse was made.
Other routine duties were completed as directed.

Tree Nursery:
Several hundred iliahi seeds were collected and planted.
One flat of iliahi seed was planted.
One flat of puakeawe seed was planted.
One half flat of puahamui seed was planted.
One fourth flat of kukainene seed was planted.
Four aha seeds were planted. (From Puuwaawaa)
Seven koa seedlings were planted in the Headquarters area.

Seedlings sent out:
To Hilina Pali, 25 manani and 15 wilwili.
To Headquarters area, 7 koa.
Seedlings transplanted, 44 manani and 2 wilwili.

Under E. Olson,
Park Ranger.
February 1, 1941.

Memorandum for the Superintendent through the Chief Ranger:

Subject: Narrative report for January.

Routine assignments of flag, patrol, and switchboard duty were carried out.

Public contact work consisted of 2 park tours for 22 persons.

Assistance was given the Chief Ranger in the preparation of the annual forestry report, forest insect report, and fire atlas. These were completed and mailed early in the month.

The following items of work were accomplished: routine maintenance of telephone instruments and traffic counters. The living room light circuit in Quarters #13 was tested and found to be operating properly. The electric range in Quarters #30 was found to have a faulty thermostat relay. This was cut off and the trouble reported to the Park Foreman. A short on our telephone circuit to Hilo was searched for on the 30th, and found to be on the telephone company's line. This was reported to their wire chief.

Current inspection was made of CCC construction work at the Observatory and Naturalist building and at the Volcano House site.

Engineering assistance was given the CCC organization in making location surveys for the water and electric line connections for the new Volcano House. The job of compacting the fill under this building was supervised and satisfactorily completed. The necessary grade stakes were established for the rock wall construction bordering the entrance road and parking area. Considerable time was spent on the design of a plumbing system for the Observatory and Naturalist Building, and the necessary material lists were worked out.
A reinforced concrete slab was designed to be used as a cover for the existing seismograph vault at the old Observatory site.

Outside work consisted of the following: three meetings of the local scout troop were attended, and one Scouter's meeting at Olaa on the 8th. Meetings of the Toastmaster's Club were attended on the 9th. and 16th., and I served as toastmaster for the latter one. The meetings of the Volcano Recreation Club and the Emergency Police Guard were also attended.

A wreck involving CCC truck 93070 and a War Department truck from Kilauea Military Camp occurred at 28 Miles Olaa on the 24th. and was investigated by me. A complete report will be submitted.

Arthur L. Jesf
Park Ranger.
MEMORANDUM FOR THE SUPERINTENDENT

Through the office of the Chief Ranger


General:

With the approval of the Superintendent, the Chief Ranger, Assistant Park Naturalist, and the Park Scientist a new arrangement has been worked out whereby Park Ranger Schulz will spend the first week each month on duty at the Hawaiian Volcano Observatory and the remainder of the month assisting in naturalist and interpretive duties under the Assistant Park Naturalist. Ranger Schulz will however continue his regular turn at flag custodian and 24-hour duty. Since the new arrangement went into effect on January 8th out of fairness to the Hawaiian Volcano Observatory one or two days per week were spent on duty at the former.

Hawaiian Volcano Observatory Duties:

A total of 5 days were spent on:
- Changing seismo- , thermo- , and barograms
- Measuring cracks (once) and working up data
- Plotting SE and W pit tilt for December 1940
- Computing cumulative SE pit tilt for Sept, Oct, Nov, Dec 1940
- Assisting in precise leveling in Kilauea Crater (17 days)
- Making Sulphur Banks gas collection on Jan. 22 with Loucks

Interpretive and Office Duties:

Wrote 4 articles on Hawaii National Park for the Paradise of the Pacific Magazine, 4 official letters, and reports on duties performed during the preceding month.

Spent 27 days on duty at the Uwekahuna Museum during which time a little gardening was done around the building and a portion of the 27 days spent on painting the museum relief model of the island of Hawaii.

2 days were spent with Asst. Park Naturalist Fagerlund on the H. N. P. negative file.

3 days were spent inventorying the equipment of the interpretive office and facilities at Uwekahuna other than museum display items. The physical inventory is 90% complete with over 1000 items recorded. The large majority of items are in no way marked and a great number will be found not entered on property cards.
12 general lectures were given to 244 persons.
1 L. M. C. orientation lecture was given to 40 persons.
1 introductory talk was given (Krakatoa) to 63 persons.
Total lectures numbered 14 to 347 persons.
1 Mauna Loa Tour conducted for 5 persons.
1 Kipuka Pueulu hike was conducted for 1 person.
1 Inter-island tour was conducted for 8 persons.
1 Mauna hike was conducted for 1 person.
2 L. M. C. tours were conducted for 19 persons.
Total hikes and tours numbered 6 for 34 persons.

The following meetings were attended:
Toastmasters' Club, Jan. 9
Emergency Police Guard Jan. 20
Volcano Recreation Club, 2 meetings
Hawaii Natural History Association, Jan. 29
Manu Iki Society, Jan 7

Ranger Duties:
Regular weeks turn was taken as flag custodian and night-
check-24-hour duty.

As a board of survey member visited the CCC-NAWC wreck, Jan. 24.

Days Off:
Out of a possible 7 days off, 6 were taken as follows:
Full days: Jan. 2, 7, 13, 19, 28, and half days: Jan 1, 4, 31.

On Jan. 20 a hike was taken from Summer Camp along Cockett's trail to Puu Holuhulu, and back along the old Hauhou Road almost to the Lava Tube, and along the Crater Rim trail. 11 of the 12 miles or more covered were new to the undersigned. He was impressed with the great and widespread harm being done in the whole region by the rooting of pigs. They have wrought great damage to the native understory of this otherwise magnificent forest.

Comments: (further)
The damaged Sulphur Banks gas collection shack door reported in last month's report has not yet been repaired. The need for this is great. Already prowlers have stolen a tube of "Lubrisal".
United States
Department of the Interior
National Park Service
Hawaii National Park
Hawaii

February 3rd, 1941

Memorandum for Superintendent Wingate
Through the office of Chief Ranger Christ

Subject: Narrative report for January

Activities for January consisted of routine assignments at flag duty, night check, switch board, patrol, etc. Miscellaneous activities—Painted signs in the sign shop a number of days, January 15th fire inspection at the CCC camp and Volcano House and premises with Chief Ranger Christ, taking inventory of fire fighting equipment in the park residence and utility area, museum and Chain of Craters fire cache. January 28th rounded up park horses with warden Antone Medeiros in the "Six Tanks" vicinity, January 29th took supplies to Hilini Pali, January 30th and 31st taking supplies by pack train to Apua Point on the park sea coast and inspection of the environs. Outside activities—Attended two meetings of the Toast Masters Club in Hilo.

Contacts  Jan 2nd Chain of Craters Tour  5 cars  28 people
          " 3rd Mauna Iki Hike  3 "  11 "
          " 6th Bird-Park Hike  3 "  11 "
          " 10th Pulu Factory  13 "  13 " (assisted Olsson)
          " 12th Mauna Loa Tour  4 "  12 "
          " 19th " "  1 "  2 "
          " 26th Inter Island Tour  4 "  8 "

Days off were Jan 1st, 5th, 16th and 23rd. Half days off were Jan 4th, and 18th a total of 6 full days off including New years.

Comments  The continuation of Public speaking classes among the park personnel.

Respectfully submitted,

Chas W. Miller
Ranger
UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
HAWAII NATIONAL PARK
HAWAII

February 1, 1941

Memorandum for the Superintendent:

Subject: Park Foreman's monthly report on activities of maintenance division during month of January 1941.

201 Buildings. 59 man days were spent on repairs to building. The bulk being spent on University Building, Painting Building, toilet and digging cesspool. Building new Paint Shop.

202 Roads. 5 man days were spent in sharpening picks and bars.

206 Trails. 5 man days shoed and cutting trees on Kilauea Iki trail.

207 Grounds. 1½ days cutting and hauling brush at University Building

211 Water System. Transferring water and connecting water line leading from hotel to park reservoir.

218 Sanitation. 6½ days were spent in road-side clean-up and policing all public rest rooms in park.

226 Quarters Operation. 13 days collecting and hauling garbage, delivering kerosene, cutting and hauling wood and kindlings.

104 Ranger Service. 6½ days were spent in moving siren from warehouse area to Administration Building.

One trip was made to Honomu looking over site for seismograph.
Two trips were made to Hilo on official business.
Prepared and sent water samples to Board of Health in Hilo.

Leaves Granted

Sick Leave 2½ Days Kawasaki

Annual Leave 1½ Day Waltjen

1½ Day Elderts

2 2½ Day Fujimoto

Respectfully submitted,

[Signature]

Park Foreman
February 1, 1941

Memorandum to the Superintendents:

The following materials belonging to the Research Association were used in the repair of the University Bridge:

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Copies to: Supt.

Mr. Hustain
Dr. Jaggar
Files
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8) Superintendent Report, 1936
9) Superintendent Report, 1937
10) Superintendent Report, 1938
11) Superintendent Report, 1939
12) Superintendent Report, 1940

End: