to calons.

Jan. 22-23: Round trip ticket to Honolulu - \$554.30. Took airline terminal bus to Friendship Airport. Plane departed 1 hr. 10 min. late. Excess baggage \$3.38 kg. cost \$47.94. Bus to Friendship \$2.50. Flew United 733 to Chicago. missed connection. United 849 to San Francisco with stops at Omaka, Denver & Salt Lake City. Arr S. Fr. 08:15. \$1.30. Some confussion at fate but managed to get a temporary visitors permit. ATF 105 U.S.S. MOCTOBI moved at B 10.

Met Lt. Cmd. Gooden and ship's officers made arrangements for centrifuge and supplies, discussed our itinerary, projected work and ability to carry it out. Work space examined and a few changes made. Saw charts for islands we hope to visit. Got some information concerning closed formations from Pan Am Capt. E. F. Sloan.

Jen. 24: Discussed possible anchorages at study Is. with Capt. Gooden.

Went aboard Ag-40, telked with A.C. Lembeck, Lt. Administrative

Officer. Ag-39 & AG-40 are converted Liberty ships also associated with DESERET. CPO Hieman then took us to see CPO Skinner at NSC medical section. No centrifuge. Then went to NSC Hq. in Bldg.

475. Mr. Kong not in talked with Arthur Char, his asst. Also met Tommy Young and Harry Saits. Things were bagging down until we got to Capt. Stokes. He managed to move the mountains Bill called D.C. for more money. Our meals will probably cost us \$1.15-1.30 per day. Returned to ship to find all of our gear had arrived. Only three days in transit from SI to ship. Trunks in good shape but light cardboard boxes badly damaged. Nothing hurt. Returned

to NSC for conference with Char and six other men. Should be able to get most of what we need. Are trying to find suitable material to make some buoy markers to use inside of atoll. Managed to locate a centrifuge at Hawaiian Chemical Co., Ltd. 2363 N King St. tel 814-266. Unfortunately top rpm is 1500. However since this is only one available in Hawaii we will have to take a chance. Took a taxi in to look at centrifuge (\$10), picked out tubes & stoppers, returned to P.H. after supper went of Hickham field to check in for flight to Midway tomorrow. Picked up our temporary passes right after lunch.

Took Navy taxi to MATS at Hickham Field. They require that you Jan. 25: arrive two hours before departure time. Left ship at 080 hrs. Flight J 25/25 left at 1010, ten minutes late. Arr. 16:25 how time. Plane chartered Trans International Airlines. Constellation. Had to pay for meal abourd 90 cents. Only one hour time difference is maintained between Honolulu and Midway. Actual distance involved would normally require two. Flight out uneventful. Cruised at 13,000 ft. Only Leeward island that I saw was French Frigate Shoals. Cloudy to partly cloudy all the way. Chan Robbins meet the flight, took me to BOQ. Because I am listed on the orders as a GS-9 (Equiv.) I will have to pay for room rent. If we were a straight government employee there would be no charge. I called Lt. McDaniel and made arrangements to see him tomorrow morning. Chan then took me to the Administration Bldg. where I checked in with the O.D. met John Waters who is out here working with chan. Also Bob Clemm, a graduate student of Harvey Fisher's. He is working on leg musculature of all the Procellarids. We had supper at BOQ (\$1.10 plus a \$.10 surcharge). Then went out of look for Binin Island Petrels. They start coming in right after sunset. Apparently is a fair number on the island. We captured and banded 55 before we quit because of rain. Had a dozen or so recoveries. Laysan albatrosses are everywhere Hatching began about two days ago. Hawaiian noddies and fairy terms seem fairly plentiful. Saw a few plovers, one turnstone, 2 b-t curlews. The petrels are working on their burrows and are easily caught with a light. Fairy terms and noddies rosting in ironwood trees. Mice are extremely plentiful.

Jan. 26: Met with Lt. McDaniel this morning and received another bushed of surprizes. Everyone on Midway thinks we are crazy to attempt to land on Pearl Hermes, especially at this time of year. Weather is extremely bad and unpredictable. Average sea temp. is 63 degrees. Winds will probably lower that to 55 degrees. Wind today 20-25, gusts to 40 knots. Waves 3-4 ft. no swell expected. The islands are very low and breakers are able to penetrate the reef. Weather can very quickly turn bad and remain that way for 80-10 days. We could get stranded on the island for long periods. Prevailing winds at this time of year vary from SSW to NNW. This means the anchorage will be exposed. It will be extemently difficult to land on islands.

Our security clearences have not come thru from DESERET. McDaniel has sent a message to DESERET requesting clearance level, agency and date of clearance.

McDaniel had no knowledge of shipping requirements, fund

transfers, etc. for our project. Fortunately I had a copy of lts.

(31 Dec. 1962) from Suddeth to Humphey which contained the necessaary information. He has initated shipping confirmation and planning.

Do not know as yet if birds can be put on TIA flights.

We will need orders for Sibley to take the birds back on MATS.

To my knowledge we do not have these.

After lunch a horned puffin was brought in alive by Scott Dentall, son of the excutive officer. He found it on the beach. We photographed, banded and released the bird. It could not fly but did swim out in the water and dove several times in quick succession appeared all right.

Weather perfect.

- Jan. 25 Weather forecast: Surface wind WSW'ly 20-30 knots, with gusts to 40-45 knots. Max. temp 71 degrees sunrise 0739 sunset 1821. High tides 0429-1628 Low tides 1135-2150.
- Jan. 27: Rainy today. Looked at a young red-tailed tropic bird in nest.

 Set up two nets and banded about two dozen Fairy terns and Hawaiian noddies. Both species are fairly numerous. The noddies are gatheering nest material. The fairies are very tame. I have not been able to get one toland on my hand yet, but they come within a foot.

This pm we took an Lem to Eastern Island. Walked the beach for about half of it. Saw 2 blue-faced boobies and numerous red-footed boobies. The red-foots were nesting in the Scaevola, some eggs were laid but no nestings. Saw one frigate-birds (?), a few tattlers, more plovers and turnstones. Looked at Harvey Fishers study area. Also saw a couple of red-tailed tropicbirds. No

sanderlings. Found 4 dead horned puffin on beach Robbins retrieved 3 of them for skinning. Bob Clemm reported one still alive on Kure I. this afternoon.

Jan. 28: Saw McDaniel this AM. I have been given space on a AEWBARRONPAC flight for 9 am Wed. Clearances from DESERSET Have not come through. Chan took me in to meet Cmdr. Bentall, the Executive Officer, although dubrious about us staying on P-H at this seasons. I cleared my flight back to Barber's Pt. thru MATS and AEWBARRONPAC.

This afternoon Lt. Mc Daniel flew myself, Chan and John Waters over to Pearl Hermes. We had much-tee a photograph aboard but the westher was much too bad to get any good pictures.

We saw all of the islands in the chain, and it wasn; too promissing. North Island had a good albatross colony, about 30 seals and at least 3 sea turtles. The reef is very wide outside of the island and has only one or two possible island on a very calm day. It would be almost simpossible to approach the island thru the lagoon. The is a long thin sandspit south of the island.

Southeast Island is alamost broken into two by a large lagoon. There is only a single sandspit connecting the two halves on the inner side.

There seems to be considerable standing water on the island, almost pondsize The observation tower actually a radar target, is still standing byut not especially com forting. The outside reef is very close in to the island and large waves could break onto the island with little loss of force.

The main entrance to the Lagoon looks very good. The sea was calm enough for a landing to have been made today.

This afternoon late we walked around about 2/3 of the island on the beach.

Chan found a puffin which was alive bit died shortly thereafer. Another dead one was reported as seen on the beach but we could not locate it. I saw a frigate-bird successfully rob a booby. The albatross were very active beyong the recef at the SE corner not see them feeding a few fairy terms and Hawaiian noddies were also present. Saw one snaderling, 5 common noddies. Guesstimate of bird populations presently on Midway Is.

Laysan albatross, thousands on both islands, young are hatching. Still more eggs than young.

Black-footed albatross-same as above, it is very difficult to determine exact number of albatrosses because of their overwhelming number.

Bonin Island Petrels- are quite nomerous on certain 9parts of island' difficult to count because of notunal habits probably several thousand. They are just entering breeding season, digging burrows. etc.

Fairy terns- abundabt estimate minimum of two thousand. These birds continue to arive well into the night from their feeding grounds(?).

They are apparently pairing up. No eggs found to date.

Hawaiian noddies- abundant at least 2-3000 probably more. Also arrive well after darkness. Presently are gathering nest material.

Common noddies- have positive identification for only 5.

Red-tailed tropicbird- dirricult to estimate during daylight hours at least 2 dozen. They are nesting found one well grown toung.

White-tailed tropic-bird- none.

Blue-faced boobies-several pairs.

Red-footed boobies- possibly 50 pairs, they are nesting, some eggs have been laid.

Frigate-birds- at least several.

Bristle-thighed curlew-somewhere between 5 and 10 uncommon.

Sanderling- uncommon more than 3 (5-1/29)

Wandering tattler - uncommon possibly 10-12

Golden plover- common are found everywhere on islands; lawns fields runways, etc. will be very difficult to count estimate 300 or more. Ruddy turnstones-common probably not as numerous as the plovers at least 200.

Jan. 29: Checked with McDaniel this am. Inable to get to Kure becayse of other flights schelduled. Received Received letter from NSC Pearl Harboe containing 7 IBM cards fir supply items. Checked these our with Lt. Gregg Fischer at Supply. They are for minor items which we were supposed to get at Pearl Harbor They have evidently been sent hare in error. Lt. Fischer claims albatross shipment will be ne trouble whatsoever. We will be able to ship on the regu are log flight via TIA as soon as we get authorization. McDaniel has sent a message to DESEREt requesting such authority as we do not have it at the moment.

I west to Weather this morning and got excellent cooperation from Lt. Garrett there. I got a copy of their satistical summary of local weather conditions for 1962 and climatological summaries for January and February. zI have arranged for them to route a copy of their monthly summaries to us via Lt. MCDaniel.

This PM I helped Chan band some black-footed albatrosses. I believe That I can handle this birds fairly well now having done several hundred.

We saw a Bonaparte's gull on the south shore of Sand Island near the dump. Also saw two immature gulls of U/K species. Also saw two common noddies and 5 sandlerlings.

Bob Clemm recovered 2 more horned piffins. This makes a total of 9 all six that wer recovered were; "

Jan. 30: Checked at out of BOQ and Administration. One to fly back at 0900. Had two aborts, one before and one after taking off. Finally got away at 1130. Hit a white goonie on outside port engine. Little damage Had a tail wind of 50 knots all the wat in, made ait in 4 1/2 hours. Sat in copilot's seat about half way in. Got a fast glimpse of Laysan and Maro Reef. Landed at Barber; s Point and was brought to ship by Cliff Olcott of Lockheed. Met his family. Got aboard ship abour 1730. Jan, 31: Briefed Capt. Gooden on my trip to Midway. Received call from United Airlines. They are not going to carry our birds. Want to Honolulu Internatal Airport, made arrangements with Northwest Orient. Bought a 10hp Johnson outboard motor. Have been unable to procure another rubber boat. Arranaged for flowers to be sent of Maranna and Claudis. Had conversation this morning with Lt. Bunlap concerning our security clearance. The DD398 forms are used both for security and CNO clearance. The forms were passed for DESERET to HDunlap to CNO Dunlap being of the opinion that our part of the operation is unclassified. We found out from the United Airlines office here that United would not carry oor bird shipments. Went to Honolulu International Airport and completed arrangements with Northwest Orient to ship the birds back to D.C.

There is a malfunction with the ship's anchor fuinch which may delat our departure from Pearl Harbor.

Feb. 1: Could not sail because anchor wrinch is still causing trouble. Confirmed flight with NW Orient. Maximum livestock weig t allowable is 640 lbs. Feb. 2: Still here. Met Cndr. Searles today. Had a short imformal chat with him.

Feb. 3: Anchor wrinch in apparently repaired but we are not leaving because it is Sunday. Toured island. Saw plovers, turnstones, sandlings, tattlers shits, coots, frigates.

Feb. 4: Sailed today. Managed to clear harbor about 11:30. Weather a bit rough. Black-footed albatrosses and pomarine jargars followed ship as soon as we got outside of channel. Saw 2 brown boobies at harbor entrance. Collected two jaegers. Maximum number of jaegers at one time-11. Only 1 Laysan albatross (*200) sooty term.

total species seen- 6

Jaegers followed ship but alight on water when ship slows on stops. Required no. 4 shot to kill. No. 6;s not enough.

Entire party seasick by nightfall.

Feb. 5: Ship has been adrift since shortly before midnight. Propellor shaft bearing has gond bad. Weather improved. Turned out of be a beautiful day. especially when returning to Oahu with wind astern.

Tried fishing for albatrosses while we were adrift. Managed to catch one black-footed. Banaded and sprayed with tellow paint and released. Did not see it again. Found that a float will be necessary to keep bait at surface. Bacon works very well as fait. Albatrosses are more easily caught when garbage is thrown overboard and several other birds are present. Competition causes them to be less particular about swallowing an object. Saw 10 spps. today.

Black-footed albatrosses ith ship all day, started keeping 15 min. counts after lunch. It is impossible to determine if same birds are floowing ship . At the menet moment I lean toward the or if they are constantly replac4d replacment theory.

Laysan albatrosses - saw 4 they do not follow ship.

Red-tailed tropicbird - pass ship very quickly.

White-tailed tropicbird - 1

Frigate - bird - 1

Booby sp? - 2 seen diving with sooty tern (wow)

Pomarine jaeger - common as we approached Oahu.

Sooty tern - common at sea, in flocks to 50 or so. a little feeding activitty observed .

Gray- backed tern - seen

Ruddt turnstone - 1 approached ship from south, circled, and headed north.

We were probably no more than thirty miles from one or the other of the islands ar any time. This may account for the large number of sooty terns seen (240).

XCounts for D. nigipes will be inaccurate dur to inability to determine extent of ship-following. This is also true for jaegers apparently followed ship further out than they picked us up on return.

Saw several whales, I porpoise.

Feb. 6: Sumrise 0706. Sumset 1826. Time zone - plus 10 W.

Feb. 20: Set up nets an .7AM to catch Hawaiian noddies. Nets worked very well but unsuccessful in obtaining blood from birds even when cut open and needle directed into heart. Got less than 2 mi. from each bird. Even a confined sample of 3 birds was hardly large enough to bother with.

The noddies were collecting nest material and carrting it up into the trees. All 10 collected were males, indicating that the females were all on the nest.

Weather was much better. We would have been able to get ashore had us been there. The main channel is very good, the small boat chennel seems okey and the SE approach to Southeast J. looks goods.

There are considerable differences in the topography compared to that shown on the chart.

Kittery I, -- completely bare and possibly laying at a different angle than shown (nesting goonies.

Seal I. - larger than shown, the area to the east having filled in behind the exposed coral rock. The island is now roughtly 4dumbell shaped. Only the western prtion has any vegetation apparently only grass nesting goomies on both parts.

GrassI. appears about the same vegetation on the west half only, nesting goomies possibly a few masked booboes.

Sand I. has washed away to almost nothing, no nesting birds, no vegetation.

Bird I. - has washed away to a strip probably less than 25 ft. wide, no nesting birds no vegetation.

Southeast I, much drier than when I last wsaw it. The large pond has now dried up to just several small ones. Considerable debris on island, a numbers of drums a large tank, a wonder platform, etc. It is the most highly vegetated of the group but I do not believe their is any as tall as a gooney. Both species are nesting also apparently some masked boobies. The island blooks much more hospitable than when I last saw it and the SE break in the reef makes it lmore readily accessible.

NorthI. Looks very god, has numerous goonies and a dew boobies the sand spit has apparently shifted to the east somewhat, good vegetation.

Sandbar - south of North I., shown as sand awash on chart, is larger and better than either Sand or Bird I. no vegetation, goonies on it but not sure they are nesting.

There were birds and seals on all of the islands. Bill saw frigatebird also only 4 spp identified. After cirling Pearl Harbo

Hermes about 3 times

from 1000 -- 200 ft. We flew back to Midway and on thto Kure. Spent about 1 1/2 his there. Did not get a chance to spend much time there. Ate lunch with the Coast Guard personnel. Spoke to Lt. Pvt. (J.G.) Dave Mc Cann, Co. about possibility of staying on Kure for a few days at a later date. He can accomodate up to 2 men for an indelfinite period. In addition to goonies, the boobies (all 3 spp) are there, frigates tropicbirds, plovers, turnstones. Bill tretrieved a newly-born seal pup which was dead on the beach. Also found another puffin on the beach. Also found another puffin. This LORAN tower is 625 ft. high. Saw as unidentified immature gull. This makes 30 so far accounted for.

Received messages from Ft. Detrick and Maryanna. They do not think hemolgsis will hurt blood samples but made several suggestions to help prevent it. Maryanna confirmed that she had made reservations with Pan Ann for aour bird flight. We will reconfirm our arrangements with Northwest Orient and concel Pan Ann.

Collect4d 10 black-foots after supper. Get bl ood samples quite easily from these large birds.

Feb. 21: Got pases for entire group for Eastern Island, expire Apr. 21. must be trurned in Blood samples coming out better.

Feb. 22: Weny to Eastern Island. Collected 10 red-footed boobies for blood samples, one red-tailed tropicbird. Boobies are just starting to lay. There are apparently more than 200 birds aon the island. Found two dead immature gulls and another puffin.

Feb, 23: Photographed some birds this afternoon to take advantage of the fine weather. Found another puffin near the Officer's beach on Sand iI. Collected blood samples from gooney adults and chicks.

Feb. 24; Flight to Kure concelled because of misserable weather. Weather

finally cleared at 1700. Went out and collected some more albatross blood samples. This time we did not collect the birds. They seemingly suffered no ill effect from the heart puncture.

Feb. 26: Landed on Southeast Island sometime around 1000hrs. Weather perfect came in the thru reef at SE corner of island. Had to come over smal rock shelf to reach brach. Fubber raft comes over shelf at high tide but not at low water.

The island looks much better now that we are here. Ther is a much larger array of birds than I expected. Both species of albatross are very abundant, Laysan predominating. All 5 species of aboobles are nesting although none are numerous. Frigate birds are also nesting. Binin Island petrels apparently have young. Christamas I. shearwaters are here, num ers as eyt undertermined, Soty terms gathered continuously all day until untold thousands were present at sunset. A few were to alight on the ground. A few tattlers and one sanderling. A few gray-backed terms are present. Shorebirds include ployers, turnstones, curlews, a few ttlers and one sanderling. ONe U/I gull shor another present.

Went out at night, NBanded 200 sooty petrels, 64 Bonins. Only 2 Xmas shearwaters on island 47 Red-footed boobies. 27 Brown boobies, 7 mesked 200 Black-footed albatrosses. Assorted plovers, turnstones and terms. 19 frigates. Apparently many more boobies coming in after dark. Large number of sooty terms landed late at night. Apparently started going out about 0330 to down. Feb. 27: Weather still holding good, altho windy. Banding continues. More old band recoveries. 454 albatrosses. 100 sooty a dn 36 Bonin I. petrels 19 Bonin, 58 Maked, 21 Red-footed boobies, 7 Frigates, 7 misc. terms, 8 turnstones. No shearwaters seen. Masked boobies and Red-foots still laying, browns hatching. BOoth species of petrels above common for sooties.

More sooty terns land earlier, more spending the night.

No fairy terms seen to date. Common noddies rare and How very scaree.

Cannot find curlews at night. Several hundred turnstones, few plovers.

Feb. 28: Weather a little colder, windy. Banding continued. 524

Black-foots. 11 Brown, 28 Red-foots, 11 Masked boobies, 10 Frigages. 2

H. noddies, 1 curlew.

3 March:, Weather cleared up enough to get some of our things dried out. First wedge-tailed shearwater fkund. Several hundred more gray-backed terms are here at night. Rain again tonight Tropic-birds are alightling in pairs during the daytime.

371 albatrosses:

7 Frigates 2 Brown 4 Red-footed boobies

40 B.I. petrels 8 terns 2 tropic-birds

11 Sooty petrels 1 wedgetailed shearwater.

4 March:

5 March: Traveled oo the rest of the southern islands. Bird I. is just a bare sandbar, ~ 250 yds. Black foots and masked boobies. Sand I. is even smaller Grass I. has a full compliment of birds apparently. Has more frigates than Southeast, masked boobies, brown boobies, 1 redgoot. Both Sooty and Bonin petrels. Kittery is completely bare has good sized blackfoot colony, a few Laysan, and a food number of masked boobies, Seall I has good vegetation, petrels, frigates both albatrosses, masked and broown boobies.

Recovered puffin on Grass I.

Saw one red footed booby and on e albatross which we had banded on South-eastI.

6 March: Went to North I and its adjacent sandbar. Sandbar has a little grass coming in, a few Laysan in addition to the black-foot also the Masked Booby. North I has a good number of frigates, red-foot and masked, brown boobies apparently tyopicbirds. Weather rainy miserable Frigates, amsked redfoots on eggs. Did not stay long Bo photos taken.

42 Sooty petrells

42 B.I petrels

400 Laysan chicks 386 Black-foots.

4 Haw. noddies.

Recovered a puffin. Saw 4 (?) of our green color-banded birds.

7 March:

8 March: Left Southeast I.

9 March:

10 March: Went to Kure . Collected 4 gulls and 1 other dead on beach. Also one snow bunting, Saw One black-footed albatross with green band which we c could not catch but definitely one of ours.

12 March Lisianski I.

Bill vanded 200 Masked Boobies

- Red-footed Boobies
- 2 Brown Boobies
- 46 Frigates
- 3 Curlews
- 28 turnstones
- 7 Xmas I shearwaters
- 1 Wedged tailed Shearwaters
- 1 R. Tailed Tropicbirds

19 March 1963e Landed at Howland I.

Left Howland

22 March 1965 arr. Baker

24 March 1963 left Baker

25 March 1963 arr. Canton

26 March 1963 left Canton°

1 Apr. arr. Hono.

left at 0930. Error by Pan Am. agent who wrote ticket. Traveled to Friendship where we finally departed at 1500 non-stop to L.A. Pan Am. flight to Hono was late so we had a 4 hour layover there. Walked down to breack. Departed at 2115, haf heavy headwinds and arrived Hino at 0015 May 6. Spent night a t Sky Lane Inn. Called Wakalapa BOQ to verify Suddeth was there but did not try to talk to him. May 6 Called Suddeth at 0700. He was not up having arrived from Johnson I. late the bight before. Went to KHickham. DESERET had really mgoofed and he did not have our orders or clearance for bird shipment. TIA flight J 25 was sdelayed at fENiwetok with engine trouble, wil was set up for 1300, them 1500, then finally indefinite. About 1600 we finally cleared to go on to Midway withour travel orders as seeon as plane was ready. Had relatively short conversation with Suddeth concerning project plans. We can apparently scrap most of the grandiose visions we have dramed up in recent They have their own ideas. Spent night at Skylane Inn again. May 7. We were aroused at 0530. Left Inn at 0615 for Hickam. After further delays we took off at 0730. Tri up was not tww bad. Saw Gardner; s

Pinnacles and a read good look at Pearl Harber Jermes. Arrived here 1130

Checked into BOQ and called on McDaniel after lunch. He is now a Lt. Cmdr.

May 5 We were scheduled to leave Dulles at 1030. Arrived ti fund the plane

We met Capt. G. W. Davis V, the new Co. He is very nive and quite helpful. OAlso met Lcmd. Frye, the new security officer. Got passes for Eastern Island, one bicycle. Boxes ordered and bird clearances have not come thru.

Laysan albatrosses- chicks are beginning to fledge they are huge and actually deminish in size as feathers replace down.

Red-taled tropicbirds very numerous nesting everywhere most on eggs.

Fairy terns - downy chicks on branches some still on eggs.

Haw. noddies, have not seen into nests as yet. Saw a number of noddies feeding on the surface of the lagoon they dro doen to the surface and feed after landing. Remained on water about ten minutes even after feeding stopped some even were bathing. Also a number were resting on the bare sand of the bathing beach. Brown noddies-none yet

Sooty terns - small numbers over lagoon.

Grey-backed terns- several

Frigates birds one ? over lagoon.

Golden ployer- 1

Ruddy turnstone- several singles and a pair U/I shorebirds- flocks of 15 +.

Bonin Island Petrel - very few on surface. nono coming in at dusk.

Wandering tattler- several

Waited for duck on Officers Beach. Saw only one Bonin Island petrel over lagoon Laysan albatrosses were cruising up and down beach quite activily. Very few black-foots. Fairy tern and Haw. noddiees fishing until dark quite numerous. Sooty tern were crossing lagoon, all headed far East eren Island. Wandering tattlers feeding at water's edge also turnstones.

Looked for petrels and shearwaters again at 2200. Very few petresl no shear-waters.

Weather is warm, very humid, rain showers.

May 8: This morning Fred went out on the garbage boat about 2 mi. west of Sand I. He saw wedge-tailed shearwaters Christmas I. shearwaters, Bonin I Petrels, ammy tropicbirds resting on water, Haw. noddies, fairy and sooty in close enough to collect. He did not collect any. I checked the Laysan chicks on the hospital study plot for GChan.

Took photographs of noddies and fairy terns, gooney chicks and several spp in air.

Flew to Kure in afternoon hearty welcome from Dave McCann. Found that Chan had left a supply of bands here so we are going to make use of them.

Tropic-birds are very numerous on the island and we nesting everywhere

All three species of boobies are here, numerous frigates. Wedge-tails here one pair copulaing (?). How. and Brown noddies, no fairy terms seen as yet. Sooties and grey-backs here.

May 9: Misty and rainy today. Banded 100 red-tailed trpic-birds with bands left here previously by Chan Robbins. Tropic-birds are very plentifly nesting everywhere beneath the scaevola. Probably about 1000 nesting pairs. About half with eggs, about middle size, downy.

There seem to be relatibely few albatrosses here, especially blackfoots. Wedge-tailed shearwaters are quite common. Digging burrows beneath
the scaevola whereever the underbrush is quite heavy. Pairs of birds
are everywhere, moaning and groaning. A very few Bonin Island shearwaters
are in. No sooty petrels or Bulwer's petrels sen as yet.

Frigate-birds are fairly numerous, some nests with eggs. Red-footed boobies are the most common, fairly numerous, some nest with eggs no chicks. Masked boobies are common in antemae field. All eggs hatched, some chicks very large but not fledged. Brown boobies seen in air and on beaches.

Gray-back terns not nesting yet. Sooties not nesting neither rare either noddy.

Weny out after 9 PM. found a few B. I petrels, many wedge-tailed, many noddies and thousands of Haw. noddies. Enough H. noddies to darken sky when flushed. Bright moon made catching birds difficult. Recovered a few gooney banks. One was one of our Pearl-Hermes birds. Some noddies (common) roosting on pipe framework of radar reflector.

Fred collected a banded brown noddy.

May 10: Took photographs of Kure today., including some black-white aerials. Seemed to be more noddies of botg species, presnt during daylight hours, than we saw yesterday.

SEeals are fairy common with a numeer of young. All + and young are on lagoon side. Single animals (±8) are on ocean beaches.

Sandbar to west of Green Island do not appear substantial enough to support a sooty tern colony. There were a few noddies present when we buzzed the three today.

Frigates have been seen chasing the following: other grigates, red dfooted boobies, tropic-birds common noddies wedge-tailed shearwaters. Frigate stomachs contained half-beaks.

Gray-backed tern stomachs contained purple shells this very fragile thin helmet shpaed thing which is littering the beaches in windrows.

Very few turtles sen at Kure.

McDaniel flew us back to Midway about 1030 today. Boxes have hfinally arroved.

Record Recovered a banded noddy.

Summary of Birds Present on Kure

May 8-19, 1963

Laysan albatross - about 1000 adults not mearly as many as island would appear to support. Chicks fledging.

Black-footed ablbatrosses - about 100 dadults no large colonies or dense nesting areas. chicks fledging very few adults seen in daytime.

Wedge-tailed shearwaters- very common, moaning everywhere, nesting in thick nundergrowth beneath scaevole, digging burrows, in pairs on ground, no eggs seen, did not dig up anh nests gonads in excellent breeding condition. Chritmas Island Shearwaters - 4 or 5 seem some during daylight, flying.

Bonin Island Petrels- several seen at night. No Sooty or Bulwer's petrels seen.

Frigate-birds - 800 to 1000. nesting some with eggs no young seen, several colonies, commonly seen throughout day.

Red-footed boobies- about 1000, some nests with eggs (not many) one bird collected with egg in oviduct, commonly seen throughout day.

Masked boobies - about 100, nesting only in vicinity of antemae field and buildings no eggs unhatched some large yough down none fledgeing some small young newly hatched.

Brown boobies- 50 - 100, seen mostly on beach or in air. one collected had freatly enlarged oviduct no nests found.

Tropic-birds - probably 1000 pairs, about 1/2 of birds caught on ground were on eggs, a few had small downy chicks common during daytime, most nest along beach edge or runway, none in open or antemae field or too deep in scaevola.

Common noddies- common possibly 500, common during daylight on beaches and sandbars, more plentiful at night. Some roost on radar tower, no nests found.

Hawaiian noddy - not too common during daylight, abundant at ngith roosting on scaevole. Possibly 5000. (near radar tower).

Gray-backed terns- 100+ on east end of island. Starting to sit on ground no nests. in breeding condition.

Soty terns- 50 ± seen flying around island no bredding sites found. Fairy terns- 5 pairs uncommon, no rests.

Golden plovers- 30 to 50 no large flocks (15 or less) a few in breeding plumage seen mostly at dump or on beach.

Ruddy turnstones - 10 + on beaches none in breeding plumage.

Wandering tattler - 5 some barring on underparts on beaches.

No sanderlings or curlews.

18 species

May 11: Spent most of day assembling shipping catons for goonies. Checked rifle range and surrounding area for spots to collect the birds.

May 12: Checked Chan's fuel farm study plot for him this a.m. Went to
Eastern and checked the runway study pplot this p.m. Hundreds pf tropicbirds are breeding on Eastern. Large sooty tern colony, eggs are just
beginning to be laid. Males in ecvellent bredding condition. Recovered a
few gooney banks from dead brids. Saw about 9 or 10 noddies feeding
on surface of water near sand bars in channel entrance. Photographed albins
black-foot chick on fuel farm. also sooty tern colony.

Collected birds after 2000. On first load we put 45± in stake bodied truck, loose. This did not work at all. Far too much quarreling, resulting in an good deal of bloodshed from superficial cuts. Tyeb reverted to packing them into boxes at truck.

Lt. tooke two hours to collect 12 wedge-tails and 12 B.I. petrels. They appeared very Scarce. No large evening flights.

May 13: Finsihed packing birds, orders finally came thru. Received phone call from MSgt Harris, Army ATCO? Hickam regarding bird shipment. Gave him datt regarding size 135 pcs. 1086 lbs 408 cu.ft, 132 albatrosses, 24 petrels and shearwaters.

Finished up loose ends this p.m. and got cleared for flight. Departed 2000.

May 14: Arrived Hickam Ol00.

Took birds to Pan Am found utter confussion regarding shipment and method of payment. Flight shifted from 0930 to 1330. Went to hotel and returned to Airport about 1100. Arrived L.A. 2130.

Arranged shipment of birds to Dulles. They were supposed to go on one flight departing 0930. Fred returned to Wash. I attempted to water petresl labout.

May 15 12400. Found they were going to split shipment Arr. Dulles 1630. Found all birds on some plane instead of two.

Summary of Birds Present on Midway Islands

May 8 - 13, 1963

Albatrosses - not as numerous on island as during incubation and early hatching chicks fledging rapidly.

Wedge-tailed shearwater - only area visited at night was near rifle range and BOQ. Some are nesting beneath scaevola adjacent to runways pairs calling together on surgace and in burrows. Some burrowing still underway. None seen on beach areas. Not overly abundabt anywhere we visited.

Christmas Island Shearwater- none seen on island or over lgoon.

Possibly two seen by Fred from garbage scow.

Bonin Island Petrel - not nearly as common as previlusly. Acturally difficult to find probably prents are constantly morning in and out to feed chicks. No large 1 evening flights. Large downy chicks, some fledging.

No Bulwer's or Sooty Petrels seen.

Frigate- bird - two over largoon.

Boobies - wdid not get to bredding colonies.

Tropic-birds - very common everywhere , tremendous number on Eastern.

Nesting around buildings on Sand. Most just starting or os eggs.

Common boddies - relatively few.

Hawaiian noddies - abundabt, nesting in <u>Casuarina</u>. Young in nest, some young are flying.

Fairy terns - extremely abundabt, eggs being laid. No young.

Gray-backed terns - only a few.

Golden plover - very few , winter plumage

Ruddy turnstones- very few " "

Wandering tattlers very few "

No sanderlings or cuelews

Duplicate McFarlane, Robert W. June+ 1963 July Wake Island + Midway

Tournal

Aughtrala

McFarlane, R. W. 1963--

Wake Island

June 6

Left Friendship Airport at 1645. AA flight was late. Left L.A. at 2030, also late. Arrived Honolulu 2255 (0455 EDT). Located post office at airport, they were closed but p.o. boxes available. Wrote letter to Maryanna listing the various things I had forgotten to do in D. C.

June 7

Departed Honolulu 0135 Pan Am for Wake Island, crossed Date Line, lost one day.

June 8

Arrived Wake I. 0400 (1200 EDT). Was met at plane and taken to Pan Am hotel. Room pleasant, sparsely furnished, two twin beds, not private bath, sink in room. Air-conditioned \$21.50 American plan.

Went to office of FAA Island Manager C. G. Amerling. Told him of our project and what I would like to do on the island. He was most helpful. Gave me a recent map of the island showing all installations. I got a bicycle from the Pan Am gear locker (for their flight crews) to use during my stay.

Rode to southern tip of island and along runway northwestward onto Wilkes Island. Found several very large sooty tern colonies on Wilkes Island and one colony of frigatebirds. The entire beach area is of coral rock, badly eroded, very rough.

Went to Peale I. this afternoon. Has good vegetative cover of Messerschmidt. Found about 6 white-tailed tropic birds behaving as if they were preparing to nest. Did not find any on ground. Also 14 common noddies, 9 roosting on old Pan Am clipper pier, 5 roosting on structural steel of old hangar (?). No shorebirds. 14 immature frigates at LORAN station, on poles.

Watched a large flock of sooty terms and several large white birds (tropic or red-footed boobies) feeding about a mile offshore. Just within binocular range. One large fish jumped.

June 9

Returned to Wilkes I. this morning to continue survey of birds. Worked NW end, walking around the cleared portion of the island. There is a small colony of sooty terms just settling in open ground SW of VOR installation. The vegetation of this end of the island has become too dense and high (8-12") for the terms to continue to use this as a nesting ground, as they have in the past. They now have moved to the spoils area adjacent to the channel (between Wilkes and Wake Is.), the area just north of the channel, and the cleared area within the PMR compound, and north a further short distance. Some eggs, no chicks.

The reef extends a good width beyond Wilkes I. at the NW tip, as it circles around towards Peale I. The beach area is very rough, coral rock, quite jagged. There are a number of large rocks, some perhaps 4-5 ft. above high water and as much as 5-10 ft. long, which are scattered over the wide reef at this point. These rocks are favorite resting spots for brown boobies and common noddies. Much to my surprise, I found the common noddies were also utilizing the larger of these rocks as nesting sites. I was as many as 35 noddies on one rock, over a dozen nests, some with eggs. The water immediately surrounding the rock was too deep for me to wade while carrying cameras, etc., so I have not gotten an accurate nest count.

There is a small colony of frigatebirds andred-footed boobies in the Messerschmidia trees. Have not gotten an accurate count yet.

There are a fair number of adult and immature brown boobies roosting on the reef rocks. I have found no signs of nesting as yet.

Sea turtles are occasionally seen by skin divers in the lagoon, never on the beach. There is practically no beach area suitable for nesting.

Returned to NW end of Wilkes I. after 1800 to watch the evening flight of birds. A count of brown boobies and common noddies roosting on the reef rocks was made. 31 boobies, 60 noddies. There are probably about 50 boobies all told at various points around the edge of this end of the island. The noddy count is probably low. The largest Hest rock had 35 noddies on it this morning and seems equally crowded now. There is little light (1930) and I am able to count only the birds which are silhouetted against the sky. The actual number is probably close to 100. Both birds frequently roost on same rock.

A census of the red-footed booby and frigatebird colony was made at 2045, after dark. There were 75 boobies, a far larger number than seen to date, this bird seldom seen so far during daylight hours. There are a large number of immature birds and a few downy and fledgling chicks. There were only 35 frigatebirds counted after dark. There were almost 100 flying above the area before dark and as yet I cannot account for this discrepancy. It is possible that some of these birds are roosting on the antenna poles at PMR.

Sunset 1934.

Photographed NW end of Wilkes I. and noddy nests on rocks.

The sooty terns increased their numbers by at least tenfold. They had not begun to settle by 2100 when I left the area. It is virtually impossible to estimate their numbers. However, I estimated the area of that

cleared end of the island, and allowing only one bird per 100 ft² over it, a figure of 30,000 is derived. This is an extremely conservative guess. At last light the birds literally covered the entire island. While they were no uniformly dense a figure of one per 10 ft² would be much more reasonable, yielding a count of 300,000. When one considers that this is the small colony of the two, the total number of birds becomes staggering.

I searched a large part of Wilkes Island after dark for petrels or shearwaters. None seen. The ground is definitely not suitable for burrowing, being har, coarse coral. The messerschmidia would seem suitable cover for the ground nesting species but they apparently do not use it.

I have seen 6 cats so far. 3 on Wilkes and 3 on the west end of Wake. Two of those on Wilkes were obviously headed for the sooty terns. I have managed to catch one of the skinks and preserve it. One red-footed booby hit me in the head while taking off and regurgitated 2 small (7-8") squid.

June 10

This morning Harry Sperling brought a note from Mr. T. Escobar, Chief, SMSP 205, Wake (FAA) expressing their concern about the new sooty tern colony adjacent to the channel as it is entering the flight pattern.

I had a conference with Escobar, Sperling, and others. I have sent a message to Chan Robbins asking advice on methods of removing these birds from the area.

Further talks with Escobar and Sperling revealed the following:

This is the first time the terns have attempted to nest on this end of Wilkes Island.

They used to nest only on Peale Island.

They started nesting on Wilkes when the VORTAC was installed. The

vegetation was apparently the messerschmidia type similar to what covers the rest of the island.

The birds first arrived at this end on May 28-29. Started laying on June 6-7.

This is the earliest the birds have ever arrived here. They usually remain until September.

Rodent control--Mr. Valentine.

I spent most of the morning with Mr. Sperling. He has had quite a bit of experience in the Pacific and Aleutian area, has been on Wake six years.

He has recommended that we contact the Pacific Oceanic Fisheries

Institute, U.S.F. and W., Honolulu. They have a great deal of oceanic data

concerning the Pacific fisheries. He also said that there is a monthly

mail boat (private) which plies the Aleutians from Seward outward. This might

be a possible means of access for our work in that area. There are also several

abandoned airstrips which might be suitable for charter flights in.

I have been provided with a Cushman 3-wheel scooter for transportation for the rest of my stay.

I have also been given an unidentified insect (fly) which bit one of the workmen and was collected. It is new to the island. Possibly a hippoboscid.

I took scooter out to Wilkes I. this afternoon. Saw an unidentified s sandpiper from the bridge--gray-brown plain back and wings, dusky head, darker on crown, lighter on sides of head, neck, and upper breast. Dark stripe from bill through and beyond eye. Lower breast, abdomen and under tail coverts clear white. Legs yellow. Bill long, slender, block. Feeding among rocks, bathing in belly-deep water. Had faint suggestion of wing

pattern when wings raised while preening. No sharp wing or tail pattern seen when in flight. This is only the second shorebird I have seen to date (1 wandering tattler seen first day).

Also saw 3 fairy terns, for the first time.

Sooty Tern colony adjacent to channel is growing steadily. Many more eggs laid than just two days ago. Colony has crossed north of pipe line, along beach. Birds on plain area (bare or scattered small plants) have just about finished laying. Birds on higher spoil bank have not started. Colony is almost continuous from channel to 50 yds. beyond PMR installation. Very dense along beach, among messerschmidia, eggs completed. Only one 2-egg clutch seen. Birds are starting to get into grass area near fuel farm. Birds nesting among messerschmidia commonly have difficulty taking flight through brush. Estimate population of 5000 within confines of PMR. This is one nest per sq. yd., measured approximate nesting area, 2500 yds.² They have been settling there for two weeks.

It is very starnge that no birds are utilizing the bare ground within the fence around the fuel farm.

Visited the VOR colony. No birds on ground. Several thousand in air but moved off as I approached.

A number of frigates and red-footed boobies were roosting in nest area. They flew upon my approach and I could not get a count. I found only 3 young, downy, white, booby chicks. All were partially fledged. Wings and tail, one with scapulars. Several other immatures have just recently feathered, one still had white down on head and neck. Probably 5 or 6 such birds ONly saw one or two unoccupied nests. There was either a very small crop or these few birds are very late stragglers. No sign of frigate breeding. One bird on nest turned out to be an immature and nest seemed too well

constructed for a frigate, possibly an abandoned booby nest.

Photographed sooty colony and bare area being cleared with bulldozer.

10 species seen to date: Red-tailed and White-tailed Tropicbirds, Red-footed and Brown Boobies, Sooties and Noddies, Fairy Tern, Frigates, Wandering Tattler, and Sandpiper.

Returned to channel colony about 1900. Collected sperm samples of the terms. Found a distinct behaviorial difference between the sexes, when on or at egg, at least at this stage. Females abandon egg quite readily. Males defend the egg vigorously or remain quietly sitting on it. By this difference, I was able to select 24 males from 27 birds, the first female being the one wic which caused me to realize the difference, in that I had to chase her down to catch her. The other two females were deliberately picked to confirm the theory. A fair variation is present in development of vas deferens and testes. Some were extremely swollen.

I checked a number of stomaches. 1 The majority were empty, lined with a brillian green color, which also shows up in the feces. More "green amorphous." A few contained small (to 4") sardine-type fish. Other birds regurgitated the sameffish.whenhandled.

I have started to band a number of the terns in areas where harassment and egg removal will occur. It will be very interesting to see iff any breed again at the far end of the island. Can band 100-125/hr. at night. I banded 100 tonight. 743-30001 through 100. All bands on right leg. All birds from bare ground between spoil bank and pipe line. All birds taken off of eggs, all breeding now.

I drove the scooter to VOR area at 2200. Apparently the entire colony is still airborne. The noise was deafening.

All of the terns dissected were very fat, large globs located around and before cloacal area. I had to remove fat to find distal vas deferens.

June 11

Banded 200 terns at the channel colony this morning. More eggs have been laid. There is a distinct difference in behavior of birds according to age of egg. Those birds on new eggs desert them quite readily. Birds which have been incubating several days are far more reluctant to depart.

Checked the VOR colony again. No birds seen on ground. Small flock flying nearby. 4 Red-tailed Tropicbirds flying over area. Appear to be looking for nest sites. Bulldozer and grader working close to area.

Had atalk with Escobar and visited VORTAC area with Sperling. I have recommended that they do not clear area where birds were apparently starting to nest last Saturday. I have also recommended that they do no remove all vegetation. When the Grader is run over an area once it removes everything except the small clumps of bunch grass. This leaves a much more naturallappearing area.

They told me that at the height of the breeding season the birds extend throughout the messerschmidia vegetation, all the way back to the lagoon (submarine channel). (This channel was cut just before WW II. It was to provide access into the lagoon for submarines. The dredge was acuttled in the lagoon, still visible.)

Sperling told me of masked boobies breeding on the island in the past. Stays he has some movies of them. Also says Palmyra I. is a booby haven. He was there with a tuna clipper.

Banded 300 terns after dark. These birds apparently do not have a brood patch. Many of them are incubating with the egg beneath the feathers

of upper breast and lower neck, the egg being slightly to one side, and held in with the bend of the wing (wrist).

Checked the VOR colony at 2230. No birds on ground. Still thousands flying above. 2 cats.

June 12

Photographed more of Wake I. this morning. Received cable from Chan. Most successful method of harassing birds on Sand I. was by killing a large number of them.

Have indications from speaking with Wake residents that gray-backed terns also nest here in spring. Will check further. Have seen the gekko which is present here on the island. Have not caught one as yet.

June 13

A number of terns were drinking water just beyond the surf at the channel colony this morning. Also noticed quite a difference in behavior at different parts of the colony. The birds immediately adjacent to the channel and spoil banks are constantly in the air, not too high. But the colony which runs along the beach from the fuel farm to the PMR is hardly noticeable, there being only a few birds overhead until someone disturbs the birds incubating. Eggs have now been laid on the beach itself.

Birds banded regurgitated small squid and flying fish (2-4").

Went to Weather Bureau, met Wes Body. Got copies of local climato-logical data. Also ran into Escobar, rode out to bird colony with him. The sooties have moved into the fuel farm area, within the fence, since this morning. Had a conference with Escobar, Amerling, Awana, and Pan Am's Dick Connelly. Explained the pro's and con's of various solutions to bird

problem. I think that they may let it slide for now and see what happens.

I have also learned from these and other sources that sooty terns also breed here during the winter. It would be interesting to learn if this is a separate population or perhaps a 6 mos. cycle.

Banded 300 more terns after dark. A large number were roosting on the beach itself, not with eggs. Hermit crabs are definitely opening and eating the eggs. The QQ crabs also have eggs in their shells, attached to abdomen.

At least 50 Frigates roosted at PMR.

June 14

Wrote a report summarizing the conference which I had with FAA and PAA officials yesterday. Escobar is having this typed. It was written at his request.

The sooty tern colony is rapidly increasing in size. They have now settled in the bare ground immediately surrounding and within the Mid-Pac fuel farm. Eggs have already been laid outside of the fence.

Large numbers of terns are sleeping on the beach at several spots between the channel and PMR. Area is much too rough for nesting. Birds are sleeping on the rocks.

Banded 300 more terns after dark. Saw 2 Fairy Terns over Peale I. Supply ship arrived today. Cargo is ferried ashore in LCM's.

June 15

Got typed report from Escobar. Spoke to Amerling about importance of allowing terns to settle on Mid-Pac fuel farm.

Photographed sooty Lerns again today.

Banded 800 terns in 3 hours 20 minutes tonight. One every 15 seconds.

Hit ideal conditions. Was able to catch about half of those present.

This makes a total of 2000 banded for this trip. Had a thunder and lightening storm. Got soaked through by heavy rain. Most birds settled on ground in pairs. They were really thick then. Colony is still growing and eggs being laid at rapid rate.

Eggs present within fuel farm fence tonight. They moved in just two days ago.

Many terns regurgitate fresh squid. I have less faith in this nocturnal squid catching every day.

Noddies still constructing nests on rocks.

June 16

Heavy rains several times today.

Paid hotel bill. Meals for 8 days, room for 7. \$156.40. Meal breakdown: breakfast--\$1.75; lunch \$2.30; dinner \$3.25; room \$14.00.

Red-tailed Tropicbird--at least 4. Seen a number of times flying about VORTAC installation on Wilkes I.; appeared to be searching for nest sites White~tailed Tropicbird--6. Appeared to be searching for nest-sites onwwake near HHW, on lagoon side.

Red-footed Booby--75 +. Nest-sites on Wilkes I. 3 large white downy chicks fledging. 5 or 6 immatures pre-flight stage. Scarce during daytime. Can be seen feeding offshore. High count at night (75).

Brown Booby--50+. Common during daylight perched on rocks around NW end of Wilkes I.

Great Frigatebird--200+. Apparently breed with Red-footed Boobies. No breeding activity now. Roost with boobies in messerschmidia and on poles and wires at PMR on Wilkes and LORAN on Peale. A good many immatures.

Sooty Tern--1/4 to 1/2 million or more. 1 Extremely abundant, especially at night. Two major colonies at opposite ends of Wilkes I. Egg-laying heavy. No chicks.

Fairy Tern--3. Seen twice flying over Wilkes I. (3) and Peale (2).

Common Noddy--200+. Breeding at reef rocks off NW end of Wilkes. Eggs being laid. Nests still being constructed. No young. Also 10+ on Peale I. roosting on iron girders of old building.

Wandering Tattler--1. Seen only once. Peacock Point.

Sandpiper (unidentified) -- 1. Seen once near bridge to Wilkes.

Total species seen -- 10.

No albatrosses, shearwaters, or petrels. No other evidence. Masked boobies apparently nest earlier. Gray-backed terns may have been nesting during April-May. Shorebirds and ducks at other seasons. Pigeons have been imported not set loose.

June 17

Plane to Honolulu had to lay-over at Wake for engine repairs. Were two hours late leaving 0700.

Crossed International Date Line.

June 16

Arrived Honolulu 1340. Had to check through immigration and customs. Went to Skylane Inn. Trevor and Marshall arrived shortly after midnight. Trevor's luggage had been lost by United.

Our orders for Midway do not stipulate a particular flight. Called Army ATCO at Hickum. We have not been booked on J25 for tomorrow. Have decided to wait here a day or two to find the missing luggage or get replacements.

June 17

Called Maryanna this morning. Told her of my decision to remain here. Discussed numerous other things.

Went out to Army ATCO. They knew nothing of impending bird shipment. Gave them necessary information.

Checked J25. Booked solid. Could not have left if we wanted to.

June 18

Called Lt. Kuntz, Dist. Trans. Off., about WV flight. She passed the buck to Major Smith, Pier 39. I then went out to Hickum Army ATCO, gave M/Sgt. Evans our orders, Maj. Smith called Kuntz. Finally get permission to fly WV.

June 19

McFarlane, R. W. 1963

Midway

14

June 19

Taken by staff car to Barber's Pt. Finally took off at 0930.

One engine was punched out just before reaching Laysan. Unable to photograph any island. Had a good look at Peqrl-Hermes, a little too cloudy to photograph it. Arrived at Midway 0130.

Saw McDaniel this afternoon. DESERET still has not gotten clearance from MATS, Scott AFB, for this live bird shipment. McDaniel is P.O. about it, at least his having to do it on a creash basis again this time. Boxes have not arrived.

June 20

Went looking for shearwaters this morning. Only 1 seen. Checked area around rifle range, and out beach past AUW. Starting taking bands from black-foots slaughtered near AUW. Got picked up by security patrol. We were still in their restricted area, unknowingly. Wher taken into LCmdr. Frye. Got permission to go back for bands.

Returned and removed bands from dead albatrosses this afternoon. Continued around Frigate Point and E on south beach.

We found less than a dozen shearwaters. A few could be seen in their burrows. Others were nesting (on eggs) under the clumps of scaevola, usually in a small depression. Not common anywhere. Not nearly enough for bird shipment.

Tropicbirds are everywhere, some large downy chicks, still some eggs.

Large numbers of birds in air over island during daylight.

A few common noddies are nesting in the small clumps of low (Yess than 2') scaevola on Frigate Point. Have small downy chick. Also saw common noddy nest in low (15') ironwood tree just east of PMR. 3 birds in tree, 2 on the nest.

 $\frac{\text{McFarlane}}{1963}$, $\frac{\text{R. }W}{\text{1}}$.

Midway

15

This is the first time I have seen this bird nest in a tree. Could not see an egg or chick.

Met Lou Eldridge from University of Hawaii here today. He has been working with Frings, is making a few gooney counts for him at the moment. He is a marine biologist, is collecting here.

There seem to be more Hawaiian noddies and fairy terns than ever before. The noddies are still building nests and they are in areas where none or few were nesting previously.

June 21

Went to Eastern Island this morning. Found a few Wedge-tails nesting but still not nearly enough for shipment. Also a small number of Christmas I. Shearwaters, no eggs yet.

There are at least six major tern colonies and several smaller ones. One has large downy chicks, another with newly hatching chicks, others with eggs still being laid.

A few common noddies are on eggs in scattered clumps of scaevola. No colonies.

A goodly number of red-footed boobies are still there, some new juvenides (flying), some chicks still in nests (fledging).

More frigates than I expected (50+).

Saw only 1 masked booby on island.

Sent message that I will substitute tropicbirds for shearwaters.

June 22

Two of the six boxes shipped air freight have arrived. Others will be too late for bird shipment. This means we only have 27 boxes for birds, no material to assemble them.

McFarlane, R. \underline{W} .

Midway

.16

Still no MATS clearance. Received message from Mary anna. She apparently does not understand the situation.

Have decided to postpone bird shipment. Sent message to that effect. Telephoned Bill in effort to get this straightened out.

Continued search for shearwaters this afternoon. No luck. Banded 100 tropicbirds.

Fresh-water pools near overrun area are dried up except for 1 or 2 small ones. A few shorebirds in the area.

There are very few adult goonies present on the island now.

Of the 100 adult tropicbirds which were captured at their nests only 3 had chicks large enough to be banded. Most were on eggs. A few had not laid.

June 23

Another 100 tropic birds banded. 3 more boxes arrived on barrier flight.

June 24

Another 150 tropicbirds banded. Last box with bird cartons arrived on barrier flight.

Spent afternoon assembling cartons.

June 25

Sp ent morning on Eastern I. Another 200 tropicbirds were banded. Sperm samples taken from wedge-tails. Two Christmas I. were tried but vas deferens extremely reduced. Common noddy had egg in oviduct.

Saw McDaniel at noon. Bushman had called him, wants some shearwaters. Had Mike and Peter skin out and salt 5 birds, 1 skel.

Met Bud Boudreau of Bio-Sonics Control Co. Had long talks with him concerning use of sonics in bird control.

McFarlane, R. W. 1963

Midway

17

Met Dr. Fisher. He confirmed that wedge-tails used to occur here by the thousands, blames the Navy which has open season on them. Says he has never seen a Bulwer's Petrel here.

Looked for shearwaters after dark around rifle range. Found less than a half dozen.

Heard several Bonin I. petrels, flying overhead. Did not get a good look at one. None seen on ground.

June 26

1 Fairy terns still copulating.

Spent all morning trying to reach Bushman by phone. Bad conditions, could not get them. I have not been able to decipher the importance of shipping shearwaters. Decided to look into the possibilities of getting them from Pearl-Hermes. Sent a message to Fred on Tawakoni. Received answer from C.O., shearwaters plentiful, Fred out of touch until night.

Late this afternoon received message from Humphrey saying tropicbirds would be all right and not to interfere with field schedule.

Trevor and Marshall managed to finish out our 1000 tropicbirds banded today.

June 27

Got a pick-up truck from Public Works through Lt. (jg) Ralph Bollingerw Spent day collecting tropicbirds. Boxed up 224.

There seen to be more shearwaters in area 9 than there were last week. They are still starting nests.

Very few adult goonies on the island. Practically no black-foots. Found a fairly fresh Bonin Petrel dead nest to runway.

Dr. Fisher says he has never seen this many tropicbirds at Midway.

Still do not have permission from MATS for bird shipment.

 $\frac{\text{McFarlane}}{1963}$, $\frac{\text{R. }W}{\text{M.}}$

Midway

18

June 28

Ship arrived this morning with Fred and Binion. Have finally received clearance for bird shipment from MATS. Sent message of impending bird shipment to all concerned.

Ship put to sea at 1500 to ride out a minor tidal wave. Returned before 1700.

Have decided that both Marshall and Trevor shall accompany Fred on the Tawakoni south.

Saw that birds were stowed aboard plane.

Still have the boys banding tropicbirds.

June 29

Got the boys moved on to the ship. Binion moved into BOQ. McDaniel contacted me about shipping 10 Laysans to Swain Warner at University of Minnesota. I agreed to supply our boxes and ship birds before I left if arrangements can be made in time.

June 30

Ship departed at 0600. Photographed fairy terns and Hawaiian noddies in morning. Binion and I flew to Kure in afternoon. Met Joe Goodwin, new C.O. Made a fast survey of the island. Many common noddies nesting. Several thousand Hawaiian noddies resting on scaevola, no nests. Small colony of sooty terns breeding. Very few young seals on island. About 20 adults. One puffin skeleton on beach.

Had a long talk with Dr. Fisher.

MATS log flight schedule has been changed.

Now is on Tuesday and Friday NW Orient.

McFarlane, R. W. 1963

Midway

19

July 1

Had a phone call from a Mr. Yee, of Program management, DPWO, Honolulu, concerning shipment of albatrosses to Warner. Flight has been okayed.

Assembled boxes for shipm nt. Photographed fairy terns and Hawaiian Noddies.

Went to Eastern in afternoon. More photographs and sperm samples. Took my third male Christmas I. Shearwater, still no sperm.

EArl and Paul reported seeing 11 tattlers and a curlew on Eastern.

July 2

Packed up 10 Laysans to be sent to Dwain Warner. Packed baggage and mailed boxes back to U. S.

Had a long talk with Dr. Fisher. He says he has seen Christmas I. lshearwater chicks and eggs since his arrival.

Learned that the albino black-foot chick in the fuel farm died last week. The chief said he lost considerable weight and died of starvation:

Flew the inaugural log flight by NW Orient, DC-7. Left Midway at 1700. Johnny and Shirley McDaniel came down to see us off.

Came to Skylane Inn and met Ken Wilz.

July 3

Went to FAA office. Unable to see Mr. Gale, top man for Pacific Region. Was taken to Thomas D. Musson, Island Operations Div. Learned that Suddeth had been there in May. He had told them that we would not need any FAA transportation, would operate from MATS. Musson explained that the bi-weekly flight was the main logistics support for the entire island and they would consider us as passengers on an emergency basis only and then just from Canton to Honolulu.

12-

Then made thr rounds of the airlines to see if they would possibly flagstop at Canton: (1) Pan Am was a definite no. They are operating only jets and consider the 6000 ft. strip at Canton for emergencies only. (2) South Pacific was definitely interested but could not possible do it for next 3 or 4 weeks as they are full 7p from the festival at Tahiti. They will mail rates and info from their San Francisco office. (3) Quantas was also definite no. They are also flying only jets, have not been into Canton for 4 years. (4) Canadian Pacific said possibly, would have to contact Vancouver, predict about \$2500 minimum.

By this time it was after 5 p.m. and I decided not to call Doyle until Friday. Sent wire to Humphrey explaining situation.

July 4

Took the day off and drove around Oahu. There are thousands of sooty terns breeding on Rabbit I. (Manana I.?) near Makapuu Point and Beach. Could not determine what might be on Kaohikaysu I. A few frigates were the only other sea birds seen.

July 5

Called Humphrey at 3 a.m. We decided that I should remain in Honolulu and visit Bishop Museum. Called Cmdr. Doyle and informed him of change in plans. Had him send a message to Fred. Called Takata but he was out for rest of day. Went shopping for odds and ends.

July 6

Rode up to Round-top. Returned car to Hickum. Made arrangements to move to Waikiki International.

July 7

Amerson and Wilz left for Johnston. I moved to Waikiki International Hotel,

2310 Kuhio Ave. Spent most of afternoon and evening with Lou Eldredge and his wife.

July 8

Went to Bishop Museum. Saw Dr. Roland Force, Director. Had a very pleasant chat. Then met Drs. Gressitt, Stroutman, and Wilson of Entomology. Found that they were doing a good bit of work with ectoparasites. Spent some time with Edwin Bryan and learned something of his Pacific Scientific Information Center. Made arrangements to work with the skin collection. Called Dr. Philip Ashmole and made arrangements to see him.

July 9

Spoke with Philip Ahsmole at Bishop Museum for about 2 hours. He is concentrating on sooty tern studies, primarily on Christmas I. Is not doing anything particular with boobies as was reported.

Edwin Bryan has been working on a checklist of Pacific birds for about 30 years. I have looked at some of it. It is quite massive, about a dozen or so volumes. However, it is rather rough and needs quite a bit of work before it will be ready for publication.

Started working on the skins at museum today.

July 10

Dinner with Ashmole and wife. Trying to set up trip to Manana and Moku Manus Saw Takata at Fish and Game. Woodside went to Hawaii, did not see him.

Doyle cool towards going to Moku Manu through him.

July 11

Worked on skins at museum. Saw info on 9 spp. of Pacific birds that

Adrienne Kaeppler worked up for Woodberry.

July 12

Having difficulties getting boatman for island visits.

July 13

Unable to get to Manana this weekend. Will trypfor Tuesday evening.

July 16

Museum.

July 17

Spent about an hour on Manana (Rabbit) I. this evening. Were only able to get one boatload (3 people) on island. Weather was marginable. Nixon Wilson, Carl and myself. Ashmole and Standtman and several others remained behind.

Large colony of sooty Terns, large yound, some flying. Also large numbers of common noddies, particularly on inside and outside sloped of crater. Some still on eggs, many small young, through large fledglings about to fly. Also large numbers of wedge-tailed shearwaters, mostlyin burrows, on eggs, no young seen. Have agreement with boatman, Harold Ahuna, to transport 3-4 SI personnel and camping equipment to Manana about August 1. Hope to stay 4-5 days for banding purposes.

Manana is old crater, and has good vegetation in the crater, including <u>Cocos</u>, high cliffs on windward side. Had to swim to and from boat to island.

July 19

Departed Honolulu 0150. Arrived Wake 0610 (Hawaiian Time).

July 20

Arrive Wake 0410. (crossed Date Line)

Saw Escobar this morning. He drove me out for a quick look at tern colonies. They have spread towards bridge. Crossed road, filled inother areas on east end of Wilkes I. Apparently none nesting near VORTAC. Met A. R. Marcus, new island manager.

Banded 1000 sooty tern adults, 1/2 e. of fuel farm, 1/2 across road, N dide adjacent to bridge.

Saw 100 + 2 or 3 frigates roosting at PMR. Sundown.

July 21

Banded 1000 sooty adults, e. of fuel farm. Went driving in afternoon. Plentiful stabhorn coral. No sea urchins or starfish.

July 22

Banded 1000 sooty adults, e. f fuel farm. Common noddies have begun to nest at very top of spoil bank adjacent to boat channel. Still nesting on rocks on reef.

Dick Conley has assured me that there were no albatrosses here during 18 months he was here 1939-40 except one straggler.

Rained all morning and late afternoon. One more shower about 2030. Cloudy rest of night.

July 23

Banded 1200 adults in fuel farm, 100 chicks. Still getting sporadic showers, sometimes heavy. Some chicks starting to fledge. (back, scapulars).

Wake Is.

July 24

Banded 100 adults in fuel farm pit and 300 chicks. Talk with Mildred Conley revealed that fairy terns are scarce enough around here to attract attention when they do appear. She has never seen more than 6.

July 25

Banded 700 adult sooties in fule farm and 300 chicks at PMR.

July 26

Banded 1100 adults and 300 chicks at PMR.

July 27

Located 6 plovers, 8 turnstones, 1 tattler on lagoon flats. First shorebirds I have seen. Watched terns, boobies and frigates feeding about 2 miles offshore. They were especially active when some large fish (tuna?) drove a school of baitfish to the surface.