

GCI 034

1975

LORAN Duty: A Reminiscence

Text and photographs by Jim Hunt

Christmas Day, 1960, was perhaps the most significant holiday ever observed on Green Island, Kure Atoll.

That particular Christmas was not the first to be celebrated on Kure (if, indeed the word "celebrated" has any place in this narrative), for 89 crew members of the shipwrecked USS *Saginaw* spent a dreary, hungry December 25, 1870, on the island, scanning the horizon for signs of the help they now feared would never be coming. Ironically, *Saginaw's* skipper, Captain Sicard, had originally set course for the ill-starred atoll to see if there had been any recent shipwrecks. Slightly before three o'clock on the morning of October 29, *Saginaw* became one.

Fortunately, one of the four men who embarked in the Captain's gig, seeking help, lived to reach Kauai with news of *Saginaw's* plight. As a result, the remainder of the crew was rescued on January 3, 1871.

This, then, had been typical of Kure's history prior to 1960. The atoll's only human inhabitants had been unfortunate mariners who had fallen victim to its treacherous reefs and currents. Even Captain Sicard's wretched crew, however, could hardly have been more miserable than my companions and I when our plane set down on Kure's coral runway on the inauspicious Christmas of

1960. We four were the last wave of Kure's first, semipermanent human population.

For the next twelve months, twenty-two young American men would know no other home. Our mission: to build and operate one of the United States Coast Guard's important LORAN (Long Range Aids to Navigation) stations. When we left, twenty-two others would replace us. Man had finally invaded Kure, one of the last of the great Pacific bird preserves.

My first impressions of the desolate place literally nauseated me. I had expected the worst, but never had my wildest, most pessimistic expectations approached the grim reality of what I found! Green Island was three-quarters of a mile long and less than half a mile wide. We were to live in crude canvas quonset huts until our regular barracks were constructed. We were to bathe in the saltwater lagoon surrounding the island. The proximity of the cold North Pacific Equatorial Current and the absence of any effective windbreak made our attempts at personal hygiene uncomfortable if not traumatic experiences. Afforded only the protection and privacy of drifting dunes, our calls of nature were answered in equally ignominious fashion. Most distressing of all, to me, was the knowledge that this was to be a year inexorably torn from my life; a year in which my infant son would speak his first words and walk his first steps without my being there to witness them.

But, if we human beings were apprehensive about inhabiting Kure, how must

the bird population have felt? Throughout the history of the Leeward Hawaiian Islands, the presence of man had been tantamount to devastation, annihilation, and even extinction.

The most tragic example of this occurred on Laysan Island between the years 1890-1923. Over a long period of years, the presence of almost a million birds on an island three miles long and one and a half wide had resulted in the accumulation of rich guano deposits.

In 1890, the Hawaiian Kingdom leased Laysan to the North Pacific Phosphate and Fertilizer Company for twenty years. Under the management of Captain Max Schlemmer, mining began in 1892 and continued until 1904. Even after active digging had ceased, Schlemmer continued to live on the island. His purpose was to develop a rabbit cannery. Towards this end he introduced Belgian hares, domestic English rabbits, and guinea pigs. Schlemmer's business venture failed and he ultimately abandoned the island to the birds and rodents. Within less than twenty years, the natural imbalance created by the well-intentioned Captain led to the extinction of three of the five rare bird species which had evolved on and were indigenous only.



to this unique island.* The rabbits devoured every green plant on the island, depriving the birds of their natural food supply and nesting sites. Eventually, in fact, the rabbits even ate themselves into annihilation.

Captain Schlemmer's unintentional perdition was not the only destruction wrought by man against animal in the Leeward Chain. Previously, unscrupulous skin hunters had almost driven the Hawaiian monk seal into extinction, and for years to come, Japanese feather poachers would decimate the ranks of the Laysan albatross. Obviously, the appearance of man on Kure might have similar devastating ramifications.

At the time of my arrival, Kure was populated by more than 100,000 birds of various species, 400 Hawaiian monk seals, and an estimated half-million Polynesian rats (*Rattus exulans*). Only the latter had any immediate reason to fear men. Yet the rats were so tame and were

possessed of such keen curiosity that they surrounded us in droves—and thought nothing of taking an occasional taste of exposed flesh or clothing. In short, they were an intolerable nuisance as well as a distinct menace to our health and well-being. The smaller species of birds also suffered from the rat's predaceous ways, as did the young of all bird species.

Our initial methods of extermination were crude, although extremely effective. Armed with shovels and baseball bats, we literally swatted the filthy beasts like flies. For two or three weeks we did little else. One of our number who killed fewer than 75 or 80 rats an hour could hardly be credited with trying. Eventually, of course, the rats' diminishing numbers as well as their waning confidence in the benevolence of our intentions made club swinging impractical.

We then resorted to poison deposited in wire mazes, inaccessible to the birds, but easily traversed by the determined, omnivorous rats. Temporarily, we exulted in the success of our endeavors—until we began to realize that the thousands of rat carcasses which now littered the island were resulting in a fly problem more serious than the health problem caused by the rats themselves.

For the next several weeks the air on our tiny island was thick with the combined stench of cremated rat carcasses and insecticide.

On January 19, 1961, Dr. Chandler S. Robbins (Chief, Non-game Migratory Bird Studies, of the Patuxent Wildlife Research Center in Laurel, Maryland) flew in on one of our sporadic mail

flights for a census of Kure's bird life. Amazed that the government was concerned enough about Kure to fly out an eminent ornithologist over a distance of some 5,000 miles, I observed Dr. Robbins's activities with considerable interest. I made a definite point of getting acquainted with the young scientist before he left and offered my own limited talents for future counts in the hope that I might save him unnecessary trips to our remote atoll.

The ominous eagerness with which Dr. Robbins answered "yes" was a dead giveaway that I should never have volunteered. Two weeks later the mail plane made a special stop at Kure to offload several packages addressed to me. Included in the cargo were: 10,000 bird bands; textbooks on various aspects of ornithology; a letter thanking me in advance for all the money I was going to save the government; and reams of forms to fill out each time I banded a bird. I was supposed to identify each bird's species, age, and sex. The textbooks contained ample guidance on species and age determination, but I never got to the point where I could reliably tell a boy bird from a girl one. I don't know how Kinsey or Masters and Johnson got all their information, but I'm pretty sure they didn't have to go ruffling through a bird's feathers.

* The Species: 1. Miller bird (*Acrocephalus familiaris*); 2. Laysan honeyeater (*Himatione sanguinea fraithii*); 3. Laysan rail (*Porzana palmeri*). The latter species actually survived until the mid 1940's on Midway Atoll, where it had been artificially introduced, but it was eventually driven into extinction by rats.

LIBRARY OF
GEORGE H. DALAZS

At the time destiny singled me out for this high calling, I didn't know a finch from a falcon. Cardinals and orioles were familiar to me only as the names of ball teams. Within the short span of only a few weeks on Kure, however, I quickly came to know rather a lot about the habits of the Laysan albatross—better known to all the world as the gooney bird.*

Disembarking from the plane which brought me to Kure, I suppose the first sight that met my eyes was a gooney bird in flight. As I looked up at that magnificent bird which soared overhead with such consummate grace and majesty, I couldn't for the life of me perceive how

* The origins of the name gooney bird are intriguingly obscure. Some dictionaries aver that the term is a colloquial version of "idiotic," tracing the etymology to the now obsolete word *gony* (simpleton). One of America's foremost encyclopedias attributes this appellation to the fact that "when airstrips were being constructed on Midway, the stubborn albatrosses had to be forcibly removed from their nests." To my way of thinking, this explanation is a bit too pat. Melville, in *Moby-Dick*, called the albatrosses "goneys" a long, long while before anyone considered building airstrips on Midway. It seems to me at least possible that the name might be derived from "gonys," an ornithological term describing the ridge along the ventral side of the lower mandible of a bird's bill.

anything so beautiful could bear such an unflattering name.

My awestruck admiration lasted less than a minute. Whether by way of introduction, or as a means of teaching me a cram course in ornithology, the lovely thing I had been watching with such fascination deposited its calling card in my eye. And, thus, was I immediately made aware of one of the many unique occupational hazards I would face on Kure.

That same first day on Kure, I also gained instant insight into what might account for these otherwise impressive creatures being known as gooney birds. As I angrily, incredulously searched the sky for a look at my winged assailant, I saw him coming in for a landing. He glided down effortlessly from a height of about 30 feet. In flight, his 9.5-foot wingspan easily supported his 45-pound weight. But, as he approached the island's hard coral surface, everything went wrong. As if transformed by witchcraft, the former figure of unparalleled grace became a clumsy lump of uncontrollable dead weight. His chest struck the ground with a wrenching thud, and he tumbled head over tail feathers and over again—eventually knocking himself unconscious.

For the remainder of my year on Kure, I never ceased to marvel at the ludicrous contrast between a gooney bird's fantastic ability to fly and its inability to land without knocking itself silly. For a gooney bird, every landing is a crash landing.



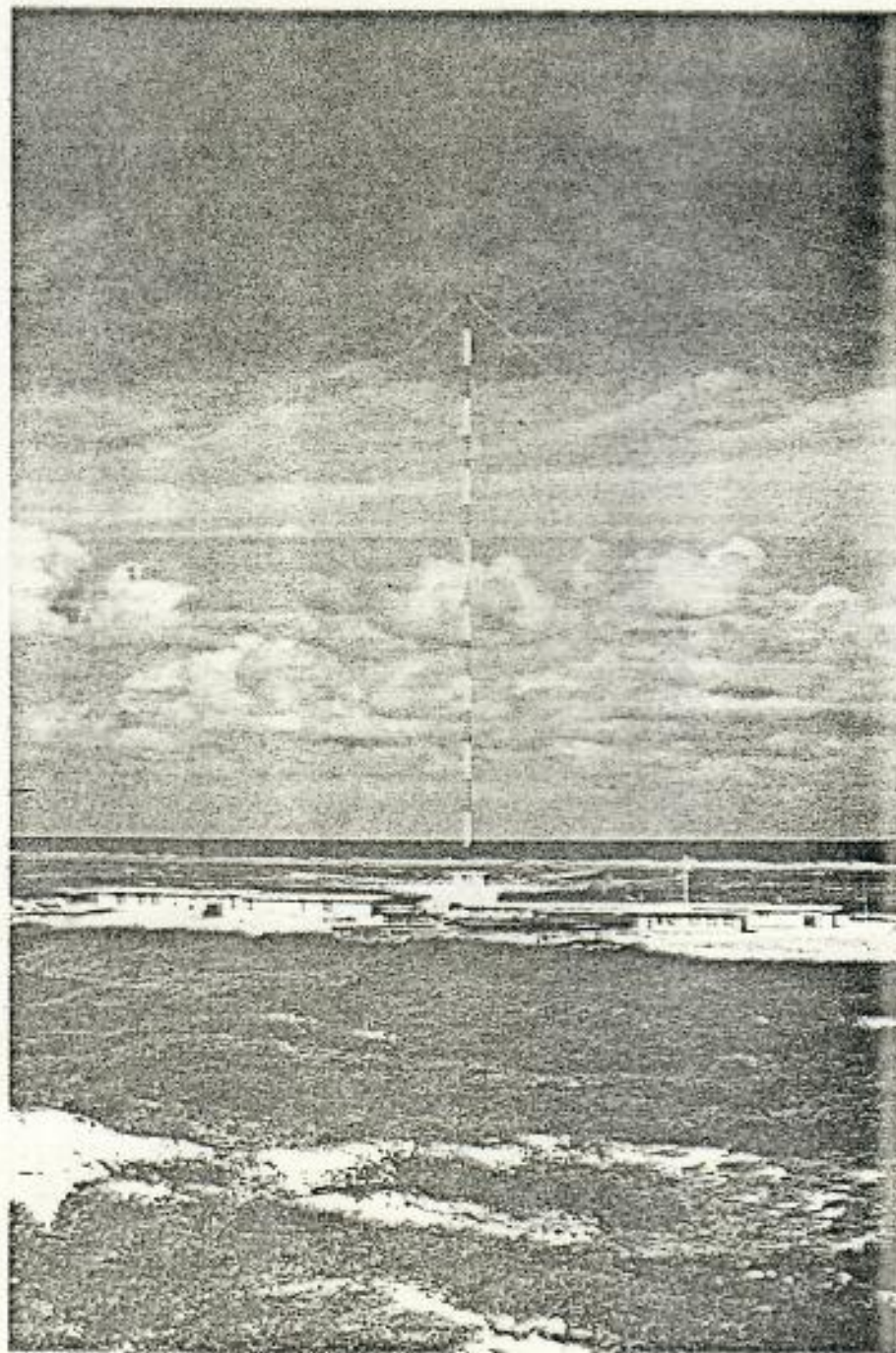
Even take-offs are far from routine. The gooneys are so heavy-bodied, and such slow runners on the ground, that getting airborne requires monumental effort, plus a good breeze to head into. On calm days, in fact, I have observed gooneys fail repeatedly in their attempts to get airborne.

My tour of LORAN duty was one of the most stimulating and exciting years of my life. I became the first man ever to dive regularly in Kure's pristine lagoon. I have skin- and scuba-dived all over the world, logging more than 2,500 hours under water, but Kure remains the high point of my diving experiences. While there, I was able to conduct many of the large-scale experiments which helped make me something of an expert in the art and science of keeping marine organisms alive in captivity. Kure also provided the stimulus and isolation which launched my career as a free-lance writer.

My LORAN assignment thrust me, albeit reluctantly, into a brief, exciting period of activity as a world-famous amateur radio operator. While in Honolulu, awaiting transportation to Kure, I received a letter from the station's commanding officer. He stated that the station had more than \$2,500 worth of "Ham Radio" equipment, but no one licensed to operate it. He went on to say that he fully expected me to arrive at the station with such a license.

The letter really irritated me. It seemed that I had everything to lose and nothing to gain. I had never been remotely interested in amateur radio. If I got the license, I would be saddled with the arduous burden of assembling and operating a radio station, in addition to

(Left) The Laysan albatross,
more familiarly known as the gooney bird.
(Below) Kure LORAN Station.



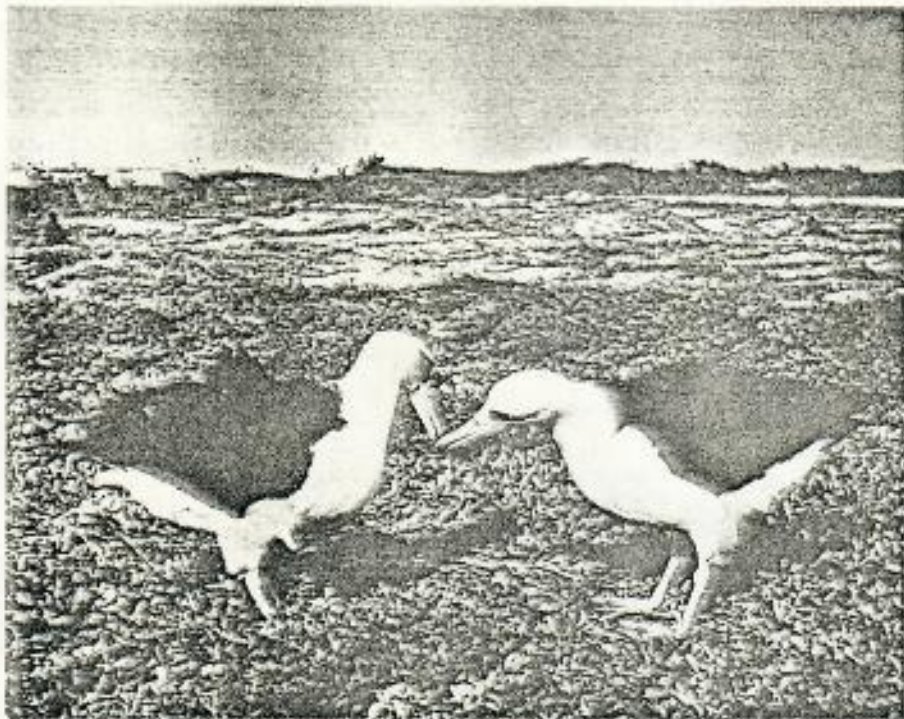
my regularly assigned duties. On the other hand, if I failed to get the license, I would make an exceedingly poor first impression on my new boss. What really made things bad was that I didn't know a single Morse Code character, yet would be required to send and receive 15 words a minute in order to be issued a license. I also had to pass a difficult examination on electronics theory. With only ten days remaining until my departure, the task I faced was formidable.

Night and day over the next week I immersed myself in the project, to a point where I thought hearing a single additional *beep-beep-beep* might drive me insane. But, with a bare-minimum passing score, I achieved my goal with a day to spare.

Once on Kure, my new skill was god-sent. DX-making contact with distant and exotic stations—is the *raison d'être* for many amateur radio operators. When I put my station, KH 6 EDY, on the air, I discovered that the whole world wanted to talk with me! In all, I made confirmed contacts with 122 different countries, including places such as Surinam, Kenya, Kuwait, and Latvia. Best of all, the use of a "phone patch" made it possible for me to talk with my wife and parents once or twice a week.

So life on Kure had its rewards as well as its challenges, and leading the field in both categories was bird banding.

Courting ritual of the Laysan albatross.



Gooney birds are extraordinarily attentive and protective parents. Mother and father take turns incubating their single, over-sized egg. When baby is hatched, they continually alternate roles, with one parent guarding the nest while the other is out gathering food. With rare tenacity, they refuse to budge from their nests, even when confronted with overwhelmingly superior odds. But it is not a tenacity born of courage. On the contrary, they are hysterical cowards. As I, with my banding equipment, would approach a nest, the attending parent would grow wildly agitated. It would tremble and shake, and its beak would chatter like a chorus of uncoordinated castanets. Other birds in the vicinity would also take up the din. "Oh, no!" I could almost hear them say, "Here comes that cat with the icy fingers again."

Why they are so nervous is beyond me. Their razor-sharp beaks are viciously effective weapons and I've had 14 stitches to prove it. The moment of truth would come when I laid hands on the bird. There were four possibilities. All too infrequently, although a struggle would ensue, I would emerge the victor and birdie would be left with a band. Occasionally, the bird would be so utterly overcome by fright that it would faint, making my task relatively simple. In



*Hawaiian monk seals,
mother and child.*

time, the bird would revive, having only a band as a reminder of its nightmarish ordeal. Often, and particularly when I first began, the birds would put up a terrible fight. Inevitably, I won, but during that year a quart or more of my blood must have been spilled on Kure's fields of battle.

The fourth possibility was one against which I never found a sure defense. Albatrosses dine on squids and other slimy things. In keeping with their hysterical tendencies, they have highly nervous stomachs. They feed their young by regurgitating foods they have brought back from the sea. The principle involves a quick-release mechanism which truly deserves to be patented. About every fifth bird I attempted to band would retaliate by dousing me with a foul broth whose odor was as persistent as it was miasmatic. For me, the loathsome experience of being inundated by a gooney bird's second-hand lunch was so traumatic that it radically curtailed the extent of my banding efforts. By the time it happened to me four or five times in one day, my *own* stomach would become so upset that I could no longer bear the strain.

Doggedly, I continued my efforts until practically every previously unbanded albatross on the island wore one of my shiny metallic bracelets, and until I wore a half-dozen permanent scars earned in the process. I bore the birds no grudge, however. Like the other men on Kure, I enjoyed a truly symbiotic relationship with these splendid creatures. My comrades and I eliminated the rats which so long harassed the birds' existence, and they reciprocated by brightening our days with their fascinating and frequently amusing antics.

I found much less to laugh about in the activities of some of the other bird species I banded. The intrinsic cruelty of nature was never more clearly demonstrated to me than in the relationship between the boobies and the frigate (or man-o'-war) birds on Kure. Each day the boobies would spend long hours over the open sea foraging for food while the frigates would loll about smugly on their perches. But at the moment when the returning boobies appeared on the horizon, the frigates would take to the air. Several frigates would gang up on a single booby, forcing the latter to upchuck its hard-earned dinner. As unappetizing as it might sound to you and me, a booby's regurgitated meal apparently is a gourmet treat for a frigate.

In the absence of any more promising action, the frigates also systematically raid booby nests. Several frigates will alternate zooming down on a nest until the booby parent has been dislodged. Then, one of the voracious frigate ringleaders will swoop down and devour the helpless booby chick.

I also banded black-footed albatrosses, red-tailed tropic birds, bristle-thighed curlews, fairy terns, and other species during my year on Kure. Happily, none of these shared the frigate's murderous ways.



Red-footed booby, nesting.

Life with a gooney bird named Sam



Sam as a baby.

Without a doubt, the most rewarding experience I had on Kure was the relationship I developed with a gooney bird chick whom I christened Sam. I saw Sam emerge from his egg and banded him on the spot. His nest was near my living quarters so I monitored his growth and progress daily.

I can honestly say I even identified with the little fellow. For several months neither of us would possess the means to fly away from our island prison. Furthermore, we shared certain physical characteristics. Each of us was—and I still am—shaped rather like a Bartlett pear. As a new father, I guess my interest in Sam was almost parental in nature, for in many ways, Sam was almost a substitute for Dmitri, my own son.

Gooney bird parents are wildly erratic in nurturing their offspring. The egg is incubated for about two months and three to five months pass before a newly-hatched chick becomes self-sufficient. Unfortunately, the parents seem incapable of judging the maturity levels of their chicks. For many years it was believed that the parents completely abandoned their chicks at a certain point in time. This has been disproven but it's easy to see how such a misconception could

have gotten started. What actually takes place, in most instances, is that a month or two before their chick is able to fly, the parents cease their constant vigil over the nest. The change in habits is abrupt and absolute. Until the chick learns to fly, however, the parents will return to feed it two or three times a week. These visits to the nest actually last no more than a few minutes.

The chicks seem bewildered by their parents' seeming loss of interest in them. Many chicks wander away from their nests and starve. Apparently a returning parent can recognize its nest easily enough but is not capable of relocating or recognizing a wayward offspring. It's a crude quirk of nature, producing a mortality rate of about fifty percent among albatross chicks.

It was depressing to be surrounded by hundreds of starving chicks. I tried to feed some of them but I could never devise a menu they would accept.

One morning I awoke to discover that Sam, too, had wandered from his nest. By painting his band a bright yellow, I had made sure that I would never have any difficulty in recognizing him. Among the thousands of albatrosses on the island, though, it took me almost three days to find him. I suppose his parents visited the nest while Sam was gone and gave him up as lost. At any rate, although I returned Sam to the nest, I don't believe he ever again was visited by his parents.

Because of my attachment to the little fellow, I was faced with a growing sense of very *personal* tragedy. Each day Sam became visibly thinner. Nature had



Sam in his adult glory.

equipped him with fat reserves designed to sustain him at something less than full rations, but it would be a month or more before he would be able to fly out to sea and feed himself. Sam *had* to learn to fly and I would be his teacher.

So I became probably the first and only human flight instructor for gooney birds. Certainly, I had observed enough to qualify me as something of an expert in the field. On our first attempt, I picked up my downy little pupil and extended his shabby, nearly featherless wings. Running into the wind, I fully expected Sam to fly for at least a few feet. But when I let him go, he just dropped like so many pounds of dead weight and I very nearly tripped over him.

During the next few weeks, poor Sam got dropped on his head so much it's a wonder he didn't suffer permanent brain damage. I'm sure that we were a ludicrous sight as I stood waist deep in Kure's lagoon and attempted to propel Sam's heavy body through the air.

Day followed day without any sign of progress. My efforts had gone beyond desperation. Discouragement weighed so heavily on me that I went about my teaching task almost mechanically. The island was now covered with hundreds of bird corpses. They had starved because they had never learned to fly.

But then one day—long after I had abandoned all hope—I thrust Sam forward into a headwind and he soared up and away in flight.

"You did it, Sam! *We* did it!" No parent has ever been prouder of a child's accomplishments than I was of Sam's that day. Looking as if he had been flying all his life, he made a broad circle back to where I was standing.

As I looked up at my precocious pupil, tears of pride filling my eyes, Sam let me have it. Splat! Right on the head.

I was furious. "You ingrate!" I shouted, but Sam was in no mood to listen. He soared away, past the surf line and beyond the lagoon in search of a long-overdue dinner. I never saw him again.

The irony of Sam's ingratitude resulted in my taking a lot of kidding from Kure's other crew members. I must confess that I harbored a few vindictive sentiments in my soul because of the incident. And then one day I burst out laughing, with the sudden realization that nature herself would take revenge on Sam. I might have taught him how to fly, but *nobody* could ever teach an albatross how to land. It still amuses me to think that every time Sam comes gliding in to shore, he's faced with the probability of tumbling head over tail feathers in awkward frustration.

Shortly after Sam's winged victory, I, too, received an unexpected reprieve from Kure's confines. My long-pending application to attend Officers' Candidate School was accepted and I departed on the next mail plane. I felt strangely sad to leave the place. As forbidding as the prospect of LORAN duty had seemed at the outset, I realized early on that life on Kure was to be a special and unforgettable adventure.

When I left the island, it was with the satisfaction of knowing that for once the presence of man on a bird preserve was to have beneficial ramifications. Exterminating the rats was only the beginning. The banding program I established continues to this day, enhancing our knowledge of these remarkable creatures. The environment the Coast Guard has established on Kure is so salutary that scientists have resituated a major portion of Midway's albatross population there.

This has served the dual purpose of providing the birds with a safe nesting site while reducing the number of aircraft accidents at Midway's strategic Navy base.

Occasionally, in moments of solitude, my wistful thoughts turn back to Kure and, especially, to old Gooney Bird Sam. Someday, perhaps, I'll receive a message from my adopted son. At least, if anyone ever recovers bird band number 667-39491 I'll know where Sam was on that particular day.

Fly high, Sam, wherever you are. ☐

Kure and the Laysan Albatross

Mr. Jim Hunt's article, "LORAN Duty: a Reminiscence," in your March issue, requires intense indignant response. Although I have not been to Kure Island, I have lived on Midway for four years and have become somewhat familiar with the Laysan albatross. The article leaves me wondering if Mr. Hunt and I are contemplating the same bird, or if we are sharing the same planet.

On earth, Mr. Hunt's 45 pound bird with a 9.5 foot wingspan has about the same aerodynamic qualities as a Volkswagen camper. If we assume that the 45 pounds is a typographical error and should be 4.5, Mr. Hunt is only about 80% off the 8 pound average for the Laysan. I can find no alibi for the extra 2.5 feet of wing on his birds. The Laysan and blackfoot albatross have a pretty consistent 7 foot wingspan.

Those of us, who live around goonies, tend to emphasize their landing mistakes. I have seen some goonies misjudge so badly that they flipped themselves flat on their backs. In reality, however, given a fair wind and few odd currents, a gooney will land as gracefully as any other bird its size.

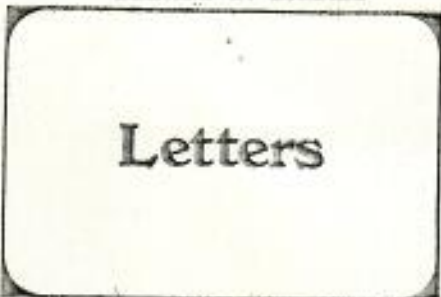
In four years, I have seen a grand total of one gooney attempt to "deposit his calling card" while in flight. It is not a convenient operation for a gooney. I doubt that Mr. Hunt was the recipient of two such occurrences although God knows he seems to have given Sam more than enough reason to make the effort.

Mr. Hunt's notes on albatross chick raising are also at odds with what has been observed on Midway. Babies are often left without a guardian within two weeks of hatching. The baby's appetite and increasing distance parents must travel to find squid require that both adults work on the food supply. During this time, babies often wander about quite freely and return to their nesting sites in time for meals. They must often flee to avoid attacks from nervous adults feeding their chicks nearby.

The 50% death rate Mr. Hunt mentions for baby goonies would have to include unhatched eggs. None of the twenty babies in my front yard have died since hatching. The loss rate among the several thousand within a hundred yards of my door is less than 10%. The birds, which die of malnutrition, have usually lost a parent. One parent cannot successfully raise a chick.

The young birds are practicing to fly now. They will continue to practice for the next two months, while their feathers develop. Their parents fatten them to a peak weight of about 8 pounds, and depart. By the time the young birds have full wings and flight muscles, they will be light enough and hungry enough to leave. About the second week of June, our beaches will be covered with young goonies each morning. By noon there will be about three left.

I could go into my yard now and start tossing a young gooney in the air (all 45 pounds of him?) and, if he survived, he would leave at about the same time. He might leave sooner, in an understandable desire to get away from me. I can understand and sympathize with Sam's parting shot, but I do not believe it.



Letters

I have never heard of Laysan albatross being resituated successfully anywhere other than their birthplace. If it were possible, the Navy would long ago have resituated our many score thousand in Westpoint, New York.

An experiment is presently being attempted in Arkansas. Several abandoned chicks were taken there and hand-fed until adulthood. I had heard only that the chicks were thriving on a mixture of vitamins and squid, which had been run through a blender. I do not know how many birds survived and left their Arkansas home. Since the experiment was started two years ago, it would be at least two more years before the first of the adolescents would be due to return to Arkansas or Midway.

The Navy limits bird strikes on Midway by flattening sand dunes in the area of the runways. This discourages nesting since the birds cannot take off well from level ground. They also collect two to five thousand eggs per year in order to keep the population in the runway's vicinity controlled. The Navy has not been able to route that particular band of "hysterical cowards." I am sure they would like to hear Mr. Hunt's techniques for resituating goonies. I fear that it would include the use of peanut butter sandwiches and hypnotism.

Maybe if Mr. Hunt had emphasized some positives, I could be more sympathetic. The people, who share their environment with goonies, tend to anthropomorphize them quickly. We do not like to relate to "hysterical cowards" that forget their children. Why did he not mention the fact that the birds usually mate for life (with occasional hanky-panky until the mate shows up at the nest), or the incredible ability to home in on the same nest year after year, or the beauty and lack of hostility they show? The list is a long one.

We look forward to information about this part of the world and the unique and fascinating wildlife we have on these atolls. It is a disappointment to find an article with this much charm and this much misinformation. It is a shock to find it in *Oceans*. This area deserves a more accurate article.

RONALD D. WEAVER
United States Naval Station, Midway Island.

I am grieved, quite literally, by Mr. Weaver's "intense indignant response." I plead guilty to but one of Mr. Weaver's charges. Laysan albatrosses don't weigh 45 pounds. Neither *Encyclopaedia Britannica*, *Encyclopedia Americana*, nor any of a dozen or so reference books I have

consulted on the subject state what an average gooney bird's weight or wing span is. The forty-five pound weight was an embarrassing typographical error which resulted in my typist converting 9 (?) into 45. The wingspan figure may have been a poor estimate on my part, but some careful consideration went into the estimate, nevertheless. Again, my standard reference works were of very little value. Both of the encyclopedias, as well as several other references I consulted, stated that the wandering albatross (largest of its genus) has a wingspan of up to 12 feet and weighs as much as eighteen pounds. They are silent, however, with respect to statistics relating to the Laysan. My *guess* about wingspan was based primarily on the fact that I have an arm-span of about six feet. I am a man of average size. In my files I have a photo of a friend holding a gooney bird with its wings extended. He is *much* larger than I, and the bird's wings extend at least eighteen inches beyond his arm's length on either side.

Mr. Weaver states that he has never heard of Laysan albatrosses "being resituated successfully anywhere other than their birthplace" (sic). During my last few weeks on Kure, three or four plane-loads of gooney bird chicks were transported from Midway to Kure. The planes used for this purpose were C-130s, a type of plane used to evacuate orphans, etc., from Viet Nam, and a type with an immense cargo capacity. This effort was undertaken because Laysan albatrosses traditionally return to their birthplaces when they are ready to mate and nest. The scientists involved in this experiment hoped that perhaps the young birds would be confused enough to regard Kure as their birthplace. Thus, future generations of these birds would nest on Kure rather than Midway. I wrote the piece you published about ten years before you published it. I rewrote it a few months before I submitted it to you. As titled, it is a reminiscence. Without benefit of total recall, I hope my readers will realize that my lasting impressions are impressionistic, rather than photographic...

At the time when I first drafted an article on the Kure/Sam story, I was given a rather optimistic report on the transplantation (relocation?) project. Because the birds involved were, in every case, banded, it was possible to discern that some of the birds banded on Midway had, indeed, returned to Kure. It is possible that the chicks mortality rate I observed, however, may have been an unfortunate consequence of this same project. At any rate, the project was not my idea and, regardless of what Mr. Weaver may think, my *positive* feelings toward the goonies came across loud and clear to most readers in my references to a "symbiotic relationship," "splendid creatures," "brightening our days," etc. I also hope my readers realize the piece was written in a humorous spirit.

In conclusion, my comrades and I on Kure were defiled not once, nor twice, but many, many times by air-borne bird droppings.

JIM HUNT
The Sea Horse, Cape May, New Jersey.

NO 9 1975
(69) 884 958 July
OCEANS
2/14/76

Marco Island

This is to inform the readers of *Oceans* magazine of an impending environmental crisis on the Gulf coast of Florida: the U.S. Corps of Engineers is presently considering the issuance of a dredge-and-fill permit to Deltona Corporation for the completion of their Marco Island development (Marco Island is below Naples and just above the Everglades).

The proposed project will result in the destruction of one of the last remaining large mangrove stands on the west coast of Florida. Over 2,000 acres of productive mangroves and nearly 1,000 acres of bay bottom will be converted into miles of waterfront residential canals, thus destroying valuable breeding and feeding grounds for fish and wildlife.

It's difficult to put into words the level of destruction which such a project will wreak. Marco Island is a Gulf-side mangrove island, a delicate ecosystem supporting a rich variety of plants and animals: fish, molluscs, birds, reptiles, crustaceans, etc., all linked together in an intricate food web. Among the rare and endangered species which will be lost are the wood ibis, bald eagle, osprey, roseate spoonbill, the tree snail, *Ligulus* and the Florida black bear. All of these species will not be limited strictly to the Everglades which — as I'm sure the readers of *Oceans* are aware — is itself endangered through the mismanagement and misuse of its crucial water supply.

In a way, it's hard to understand how the state of Florida and the Corps of Engineers can justify the issuance of this Marco Island permit. The Florida Game and Fresh Water Fish Commission points out that the entire project lies several feet below Florida's 100-year hurricane flood zone and that the existing residential canals already violate the state's water quality standards; in addition, eight known archaeological sites recommended for preservation will be destroyed. Yet, as those readers familiar with Florida will recognize, the profits of such corporations as Deltona always seem to prevail over the legitimate interests and concerns of the people.

The deadline for commenting to the Corps of Engineers on this project has already passed (June 10); however, I feel that if sufficient public outcry arises, at least part of Marco Island might yet be saved. Therefore, I strongly urge the readers of *Oceans* magazine to write to Florida's governor, congressmen and public officials, or directly to Mr. Joseph W. Landers, Jr., Trustees of the Internal Improvement Trust Fund, Elliot Building, Tallahassee, Florida 32304, in a last-ditch attempt to halt the issuance of the Marco Island permit.

Since Marco Island is the last such Mangrove island still in a somewhat natural state, this will be the last opportunity to speak out against the complete deterioration of Florida's once rich and beautiful west coast. Thank you very much.

LAWRENCE E. JEROME
Santa Clara, California

Letters

Sea Mammals

I have noticed your "Sea Mammals" section in the recent issue of *Oceans* (May-June 1975, Vol. 8, No. 3). I would like to commend you on this fine section; the articles and photographs represent some of the best popular material that I have seen published on the subject.

JOHN JAY GOODMAN
Symposium Chairman
The National Whale Symposium
Bloomington, Indiana

Oceans is not only magnificently beautiful, it is absolutely the best written and edited publication of its kind. My most sincere congratulations.

PAUL SUTTERLEY
Walnut Creek, California

SMOKE-NO-LONGER

73% of all U.S. deaths in 1968 were attributed to lung cancer, chronic bronchitis, pulmonary emphysema and cardio-vascular diseases. 50% of that figure was directly linked to smoking.

— U. S. Public Health Service

To quit smoking cigarettes effectively and easily, attend **Smoke No Longer** sessions by Nathan Schulhof, smoking therapist. He will teach you to quit smoking in seven pleasant weekly sessions of one hour. The instructions can be followed by any smoker and take only minutes a day.

During the first five weeks your physical and habitual addiction will be broken. This is done by reorganizing your habit patterns, using a behavior modification technique. After the fifth session you will find you can quit cigarettes easily.

Our success rate is 97%. For a free consultation contact:

SMOKE-NO-LONGER
Nathan Schulhof
(415) 924-1743
301 Lyon Street
San Francisco, CA 94117

SMOKE-NO-LONGER

Kure Island

I have been a member of the Society for but a few months, but my annual dues were amply repaid by a single article in your March-April issue, "Loran Duty" by LCDR Jim Hunt USCG. It was the first time I had news of Kure Island in 30 years and was certainly an echo from the past.

I remember Kure, but it has apparently changed quite a bit. One evening in the summer of 1944, while having a "Midway Sidecar" (rum, brandy, grapefruit juice) with the Skipper of the fastest torpedo boat in the Pacific, and with the Torpedo Officer of the illustrious but ill-fated *USS Tang* (lost on her next patrol while decimating a Japanese convoy in the East China Sea), the Skipper invited me on a run to Kure. Since I was a newly assigned Asst. Flag Operations Officer at NOB Midway and since it was part of that job to maintain surveillance of Kure, I readily assented.

In those days Kure was uninhabited and without a single structure. It was still called Ocean Island on British Charts. Late every evening we would send out two SBD to check it out ("the New York Search") to insure that no Japanese warships had arrived to make an early morning run on Midway. After a high speed run of a couple of hours or so, we entered the lagoon via an extremely narrow channel. The Skipper dropped anchor in the very shallow lagoon and was moderately concerned about the depth of water under the keel. I volunteered to investigate and went over the side in only a pair of skivvies (to my later regret as I stumbled ashore barefoot after a long wade through coral). I reported one foot of water under the keel and struck out for shore. Crawling ashore I collided face to face with one of LCDR Hunt's Hawaiian monk seals, but there were not the 400 that he reported, only about three, so they must have been on the verge of extinction. I am happy to hear that they have multiplied and survived.

LCDR Hunt says that the island was three-quarters of a mile long and half a mile wide. I do not remember it as being nearly that large, more like 500 yards by 200 yards. Perhaps they dredged up the lagoon later to install the runway and structures of the LORAN complex. The frigate birds were there, the fairy terns, the sooty terns, and of course my friend the Laysan albatross or "gooney bird." The *Rattus exulans* must have arrived on the construction ships later, for I roamed the island all day and didn't see a single rat, Polynesian or otherwise. I tend to agree with Jim Hunt's theory about the derivation of gooney bird. At any rate it's certainly a more affectionate term for the sailor's friend than *Diomedea immutabilis*, or even than Laysan albatross. I could have saved Hunt some gashed hands — easiest way to catch a gooney is to rotate a suspended handkerchief over its head (which it follows with its head) and then grab it by its feet when it keels over from dizziness. It was a real blast hearing of old Kure again.

WENB MILLER, LCDR USNR (Ret)
Huntington Beach, California

(714) 962-1626 10/31
Merrimac Dr.

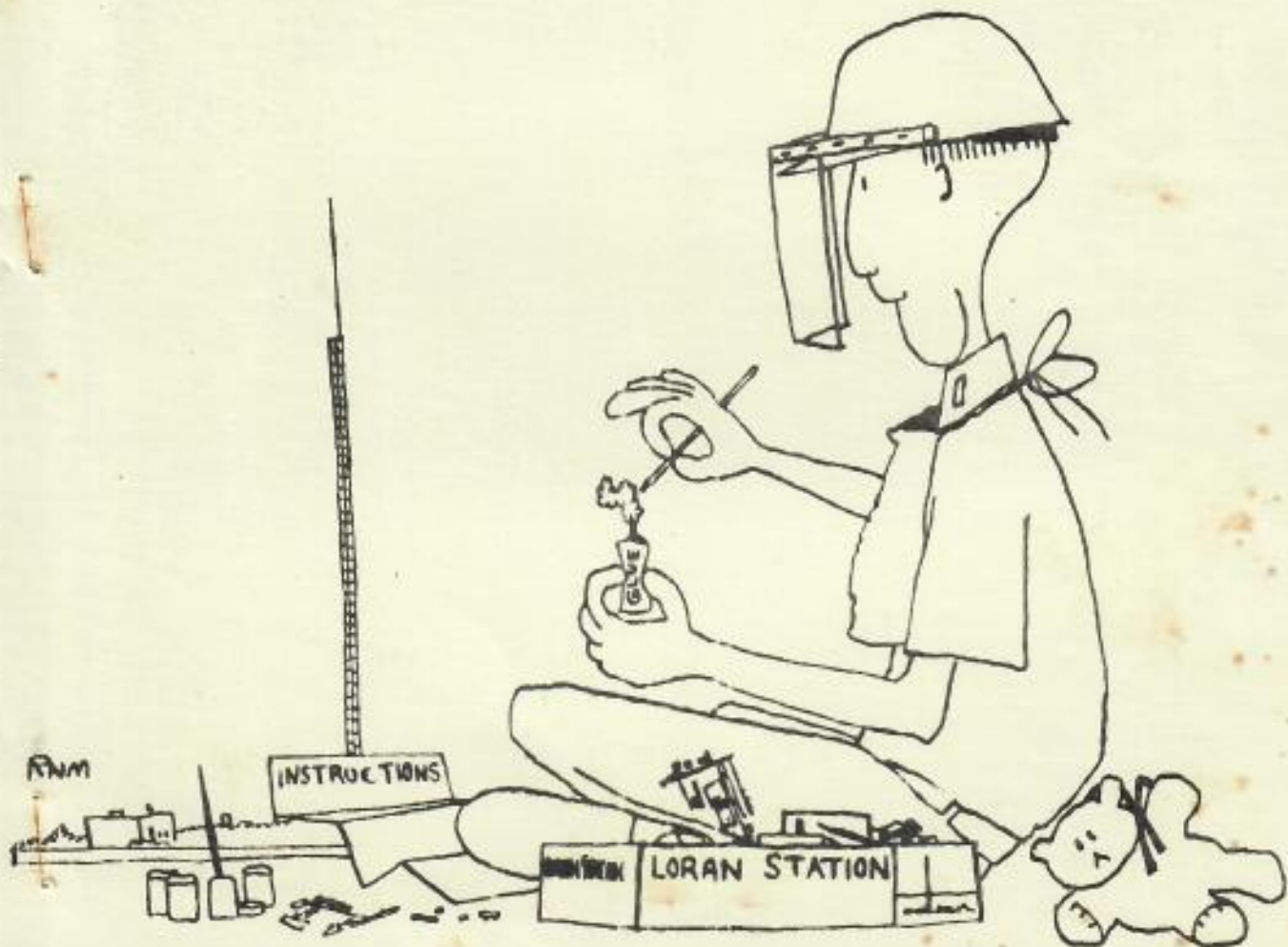
Number 5, 1975 OCEANS
September 2/14/76

G. H. BALAZS 1970s



COAST GUARD

Loran Station **KURE**



General Information Book

TABLE OF CONTENTS

<u>CHAPTER</u>	<u>TITLE</u>
I	THE ISLAND
II	ADMINISTRATIONS AND OPERATIONS
III	LOGISTICS
IV	BUILDINGS, STRUCTURES, AND SYSTEMS
V	STATION FACILITIES
VI	ANIMALS OF KURE
VII	DIAGRAMS
	A. ISLAND
	B. BARRACKS BUILDING
	C. SIGNAL POWER BUILDING
VIII	GUIDANCE FOR RELIEF PERSONNEL

CHAPTER I

THE ISLAND

1. GEOGRAPHY AND CLIMATE: Kure Island, more accurately Kure Atoll, is an oval shaped atoll, 5 miles at its maximum diameter, located 50 miles west northwest of Midway Islands at the extreme northwest end of the Hawaiian Archipelago. Although it is nearly 1200 miles from Honolulu, it is part of the State of Hawaii. The loran station is situated on Green Island, the only permanent land, and is located at the southern side of the nearly continuous coral reef which encloses a shallow lagoon. Green Island is approximately $1\frac{1}{2}$ miles long by almost $\frac{1}{2}$ mile wide but the shape of its extremities change seasonally. The maximum elevation is 26 feet on one of the higher dunes; the mean elevation is 10 feet above sea level. There are no trees native to the island but almost complete coverage is provided by a 5 foot high bush called Scaevola. The weather is excellent. Under the influence of the maritime air masses, the temperature generally varies between 60° and 80° F although an average relative humidity of 75%. Rain comes consistently during the winter and spring. Thunderstorms provide relief throughout the summer. The annual mean rainfall is 43 inches with the wettest month being January and the driest May. Winds generally prevail from the east averaging 12 mph.

2. HISTORY: The following information is furnished, courtesy of the Smithsonian Institute, Washington, D.C.:

Captain Kure, a Russian navigator, is said to have discovered the Atoll, but no authentic account of this is available. The British ship GLESTANES, commanded by Captain Brown, was wrecked on the weather side of the reef on 9 July 1837. The whole ship's company lived on Green Island until 15 December 1837. Then Captain Brown and eight seamen sailed east southeast in a schooner which they built from fragments of the wreck. After many hardships they reached Honolulu, and through the help of the British Consul, a vessel was sent to Kure which brought off the rest of the officers and crew. On 24 September 1842, the American whaleship PARKER also was wrecked on Kure, the crew being rescued in a similar manner in May 1843.

In the history of Kure the most remarkable shipwreck was that of the USS SAGINAW. This vessel had been sent to Midway in March 1870, with a party of divers and engineers who were to dredge a passage through the reef into the lagoon. After the \$50,000 appropriated by the United States Congress for the job had been spent, with the work only partly done, the plan was abandoned. Before returning to San Francisco, Captain Sicard decided to visit Kure to see if there had been any more shipwrecks on the island. The night of October 28 - 29 was clear and the wind fair, as the SAGINAW steamed slowly across the intervening

50 miles, planning to arrive at daybreak. At 0230, the engine stopped. A short time later the lookout sighted breakers ahead, the engine was started in reverse; but within a few minutes the steam connection burst, and in a very short time the helpless vessel had drifted onto the east reef. The waves pounded so hard that soon the hold was full of water, and at 0500 word was passed to abandon ship. All of the 93 members of the crew and dredging party made shore safely, but comparatively little was salvaged from the ship before she broke up except some water soaked food and a small boiler which later was used for distilling water. LT TALBOT and a volunteer crew of four, two of whom were divers, set off in the specially decked and fitted captain's gig. They made the voyage to Kauai in 30 days, after incredible suffering, having encountered three severe gales in which they lost their oars and provisions. They were so weak that, in trying to get ashore near Hanalei, the boat capsized and all but William Halford, the coxswain, were drowned. He succeeded in getting word to Honolulu so that through the kindness of the Hawaiian Government, the steamer KILAUEA was dispatched on December 26, reached Kure on 3 January 1871, and brought the remainder of the party safely to Honolulu on the 14th.

The DUNNOTTAR CASTLE, a British ship, was wrecked on Kure 15 July 1886. The crew managed to reach Kauai by boat, but several lives were lost in making a landing. As a result of this, King Kalakaua sent Colonel J. H. Boyd as his special commissioner to Kure. On 20 September 1886, he took possession of the island, then called Moku Papapa, for the Hawaiian Government. The King caused a rude house to be built on the island, with tanks for holding water and provisions for any other unfortunates who might be cast away there. The provisions were stolen within a year, and the house soon fell into ruins.

The Provisional Government of Hawaii leased the island to the North Pacific Phosphate and Fertilizer Company for 25 years from 15 February 1894, but no extensive guano digging was done.

Kure was one of the islands acquired by the United States on 7 July 1898 when Hawaii became a territory. In April 1909, it was made part of the Hawaiian Islands Wildlife Reservation.

Construction of the loran station was begun in 1960, and the station was commissioned on 17 March 1961.

On 24 April 1961, at 1310 local time, the 82 foot tug PORT OF BANDON radioed the station that she had dragged anchor and was aground on the reef inside the landing on the southeast side of the reef. This tug, owned by the Trans-Pacific Towing Company of Vancouver, Washington, had been engaged in the loran station construction. At 1315, both station 16 foot outboard motor boats were launched to assist, but 4 of the 5 man crew of the tug came ashore in a life raft, the engineer remaining aboard to await orders from the owner. The tug, although

hard aground and holed, was in no immediate danger. It was subsequently abandoned, however. Now, it is an old rusted hull, exposed scant feet above the water, but many undersea creatures have made it their home and it provides for interesting skin diving.

At 1445 local time, 16 June 1961, the station was advised that MATS C-121 aircraft number 44055, enroute from Tachikawa AFB to U.S. Naval Station, Midway Island was unable to land at Midway due to inclement weather, and because of fuel shortage would have to land at Kure. At 1450, the C-121, under the command of LCDR R. L. STOKKE, USNR, landed at Kure with 76 passengers and eight crewmen. Mattresses were placed on the floor of the Commanding Officer's and chief petty officer's quarters to provide overnight berthing for the 19 women and six children aboard the aircraft. Around-the-clock food preparation was begun in the galley. The following day, with improved weather conditions, USCG C-123 aircraft number 54705 brought fuel to Kure, and in conjunction with aircraft from U. S. Naval Station, Midway Island began airlifting passengers back to Midway. At the completion of refueling, all aircraft departed without incident. During the visit a total of 168 extra meals and 50 gallons of coffee were served. The Commanding Officer at that time was LTJG J. J. MULDOON, USCG, the first commanding officer of Kure Island Coast Guard Loran Station.

There was another emergency landing in 1966 when a Boeing 707 was forced to land. These people were berthed and fed also, until the next day when they were shuttled to Midway, and the 707 took off for Midway with minimum fuel and crew.

The most mysterious shipwreck in the history of Kure Atoll occurred in February of 1976. On Tuesday, 3 February 1976, the Japanese fishing vessel Houei Maru No. 5 tied up to the pier at U. S. Naval Station Midway, seeking medical assistance for a crew member who had been injured while the ship was at sea. The following morning the Houei Maru No. 5 got underway for fishing grounds about 190 miles east northeast of Kure. The worst storm of the season in that area occurred on 4 February.

On Friday, 6 February, while on a routine logistics flight from Naval Station Midway, the C-117 flight Commander sighted the wreckage of the Houei Maru No. 5 hard aground on the reef 3 miles north of Kure. A full scale search for survivors was initiated immediately and involved both Naval and Coast Guard personnel. After thirteen days, the search was abandoned without a clue as to the fate of any of the 17 crewmen.

On 24 February, under the command of LTJG BRATTON, HM3 MARTIN and SNs SNIDER and ROBINSON boarded the Houei Maru No. 5 in an attempt to find survivors, documents or charts that would aid in solving the mystery. Legal documents, charts and personal diaries were among the items found in the water-tight bridge section of the ship.

CHAPTER II

ADMINISTRATION AND OPERATIONS

1. OPERATIONAL CONTROL: The Commanding Officer, Kure Island Coast Guard Loran Transmitting Station is directly responsible to Commander, Fourteenth Coast Guard District, Honolulu, Hawaii for both administrative functions and operational control.

2. ORGANIZATION: The Commanding Officer is assisted by a Warrant Officer and three Chief Petty Officers. The Warrant Officer acts as an Executive Officer, an Electronics Maintenance Officer, and is in charge of the operations section. He is assisted by the BMC as an executive Petty Officer, in administrative duties of Executive Officer. The Corpsman acts as Yeoman as well. The Storekeeper is the Coast Guard Representative at U. S. Naval Station, Midway (an Island 55 miles due east of Kure), while the storekeeper's duties on the station are handled by an ET and SA/SN. The Coast Guard Representative not only takes care of people and supplies coming from and going to Kure, but also is an important link with civilization, handling administration which is not possible to take care of on Kure.

3. STATION PERSONNEL ALLOWANCE:

- a. Officer: 1 - LTJG - Commanding Officer
1 - CWO - Executive Officer/Electronic Maintenance Officer

- b. Enlisted: 1 - BMC
1 - ENC
1 - ETC
1 - ET1
1 - EM1
1 - SS1
1 - HM2
1 - DC2
1 - MK2
1 - ET2
1 - MK3
2 - ET3
1 - SK3
4 - SN/SA
1 - FN/FA

21 - TOTAL

4. LORAN: This station as secondary, and Johnston Island as Master, form the M-Y leg of a Loran-C chain which includes Upolu Point as X-RAY. The System Area Monitor (SAM) is French Frigate Shoals, a Loran "A"

Station located between Kure and Hawaii. The loran electronics are second generation (41/42) equipment and as with all electronics on the station, are duplicate systems, i.e., there are an operate and a standby of each unit.

5. OTHER AIDS TO NAVIGATION: The station also maintains a radio beacon.

6. COMMUNICATIONS: Single side band voice transmissions utilizing two 1000 watt transmitters are primary communications with the loran net. Teletypewriters are available with radio circuits providing direct communications with the net as well as with the Fourteenth District radio station on Oahu. An AM package is used for communications with Midway, plus a UHF transceiver for direct communications with flights from Midway. Portable transceivers are provided for working with logistics ships and for SAR operations.

7. SEARCH AND RESCUE: The station will provide on local SAR missions if required one 16' skiff, rescue equipment, medical and communications facilities. The airstrip is designated an emergency landing strip, so the station is always prepared with crash cart, medical assistance and berthing and mess facilities.

CHAPTER III

LOGISTICS

1. GENERAL: Supplies are generally delivered to the station via Navy CH-46 Helicopter and C-117 aircraft from Midway Island. Special Coast Guard flights may bring in supplies periodically by C-130 from Honolulu.

2. SOURCE OF SUPPLIES:

a. General and Housekeeping Supplies: Standard Navy stocks are procured from Naval Supply Center, Pearl Harbor, or General Services Administration, San Francisco. Coast Guard peculiar items are ordered from the Coast Guard Base Honolulu or from the Supply Center, Alameda.

b. Fuel and Lube Oil: Diesel oil is purchased on contract from the Navy and delivered by MSTS tanker. Gasoline is delivered by WLB in 55 gallon drums. Fuel and lube oil are supplied yearly.

c. Commissary Stores: Naval Station, Midway supplies commissary items from both general mess and commissary store.

d. Electronic Spares: Electronic parts are ordered from Coast Guard Base Honolulu, and Coast Guard Supply Center, Brooklyn, NY.

3. MAIL: Mail arrives from Midway via Navy CH-46 Helicopter and C-117 twice a week. Postal money orders may be purchased through the Coast Guard representative on Midway Island.

4. PAY: Personnel are paid every two weeks by check. Checks may be cashed through the beer mess or by Coast Guard representative on Midway.

5. TRANSPORTATION:

a. Aircraft: Two flights per week to Midway are scheduled for carrying supplies, mail, and personnel.

b. Vehicles: The station is provided with two Dodge power wagons. The Coast Guard Representative at Midway is also provided with one.

c. Boats: The station has two 16 foot Boston Whaler, one is powered by an 85 HP outboard motor and the other by a 40 HP outboard motor. These crafts are used primarily for recreation (water skiing, fishing, and skin diving) and SAR duties.

6. MEDICAL ASSISTANCE: A hospital corpsman second class is assigned to the station and has at his disposal a well equipped office and sick bay. Naval hospital facilities are available on Midway and includes dental facilities.

CHAPTER IV

BUILDINGS, STRUCTURES, AND SYSTEMS

1. BARRACKS BUILDING: Barracks are air conditioned throughout all spaces. Located in the west end of the barracks building are the officers quarters and living room plus the station office. Across a breezeway is the sick bay, CPO quarters, ham shack, and photo lab. Both the officers quarters and CPO quarters are equipped with a head and kitchenette. The "T" portion of the barracks is the crews berthing area. Each man has his own room with a single bed, locker, shelves, desk, and air conditioning. The enclosed breezeway and mess deck are for the use of the crew as their living room. The east end of the barracks is the location of the galley and recreation deck. The galley spaces include the galley, galley head, commissary office, walk-in chill box, two walk-in freeze boxes, and a dry storage area. The galley has modern equipment with combination electric oven/stove, grill, deep fat fryer, electric combination meat grinder/mixing machine, electric meat slicer, reach-in reefer, dishwasher, and ice cube machine. The two cooks are assisted by a mess cook and serve meals cafeteria style. Four men sit to a table.

2. SIGNAL-POWER BUILDING: In this building are located the station electrical power plant and main switchboard, engineering work spaces, Loran-C timing equipment, and the communications center and radio room. The engineering spaces consists of the garage, generator room, machine shop, store room, office, and carpenter shop. In addition to being well equipped with hand and power driven tools, several wood-working machines, engineers lathe, welding and cutting outfit, air compressor, and paint spraying equipment are also available in the power building area. A 24 hour engineering watch is maintained in this building.

The signal room, equipped with air conditioning and humidity control units, is the heart of the Loran station operation. All major electronic units and their associated control, test, and repair equipment are located here. Loran-C oscillators, recorders, and timers are located in the Loran-C screen room. A continuous watch is maintained in the "C" screen room. The electronics department office, files, repair benches, and test equipment are in the front-center of the building. The communications center is next to the signal room.

3. TRANSMITTER BUILDING: Located at the north end of the island is the Loran-C transmitter building which contains Loran-C transmitters, transmitter power supplies, high voltage step down transformers, repair shop, and spare parts room. At the rear of the building the "dog house" couples 300,000 watts peak power to the 625 foot antenna tower.

CHAPTER V

STATION FACILITIES

1. LAUNDRY: All hands do their own laundry and ironing. Two automatic washers and dryers are available for this purpose. The quarters and berthing spaces are provided with hand irons and ironing boards. A dry cleaning and laundry facility is available on USNS Midway, but the delay makes use of this impractical except for dry cleaning.

2. BEER MESS: The station maintains an open beer mess and informal exchange in the recreation deck area. A limited amount of essentials are kept on hand; furthermore, any item available in the Midway Naval Exchange can be procured for Kure personnel. Bills are paid at the end of each month. PACEX and NAVEX privileges are available to station personnel through mail order catalogues.

3. RECREATION: Indoor recreational activities focus on the mess deck and breezeway areas, which house a pool table, a ping-pong table, and stereo system. Movies are shown on the mess deck nightly. There is also a weight lifting area, a library, a card room, a photo lab, and an amateur radio station. Outdoor sports are centered around the lagoon, in which swimming, skindiving, shell and coral collecting are enjoyed by many of the station personnel. The water is crystal clear, the temperature warm yet refreshing, and the coral formations are of fantastic designs displaying nature's beauty at its best. The station has a seventeen foot fiberglass boat equipped with an 85 HP motor for waterskiing. Also there is a cement court in front of the barracks that is frequently used for tennis, basketball, and volleyball. There is also a small arms firing range. Further, the beach provides many happy hours of fish ball collecting. Scuba diving is authorized for YMCA, PADDY, NAUI, or Navy diving school qualified personnel. It is highly recommended that those persons interested in scuba diving obtain their scuba qualification cards before they arrive. Dive tanks are filled at Midway Island.

CHAPTER VI

ANIMALS OF KURE

1. LAND WILDLIFE: The following article is printed, courtesy of William O. Wirtz II, of the Smithsonian Institution:

"a. Green Island, Kure Atoll, appropriately named for its dense stands of waist to head high vegetation, supports breeding colonies of many species of seabirds, and serves as a resting point for several species of migratory shorebirds and ducks.

b. Perhaps the most spectacular breeding seabird are the gooneys. This collective term is applied to two kinds of Albatross, the all dark Black-footed Albatross, and the black and white Laysan Albatross. These stately birds, with a six foot wingspan, return to the island each November to begin their eight month breeding cycle. Courtship is accomplished by an elaborate sequence of posturing and dance steps. The eggs take about two months to hatch, and the young remain on the island for another five months, periodically fed by their parents. When they leave the island they roam the ocean for six or seven years before returning to breed on the island on which they were born.

c. The Red-tailed Tropicbird, or "Bosun' Bird", so named for its long red marlin-spike tailfeathers, is perhaps the noisiest of the island's bird colony, raising black peckled white chicks beneath the bushes covering much of the island. These birds perform an interesting aerial courtship, apparently using their red plumes in some fashion not yet understood by scientists. A relative of the tropicbird, the Great Frigate bird, or "Man-O-War Bird," roosts and nests in colonies of several hundred at the north and central areas of the island. During the breeding season, the black males inflate large red throat pouches and utter a variety of calls. Boobies, also related to the frigate and tropic birds, nest on Green Island. The largest, the Blue-faced Booby, raises its young in ground scrapes in the open central plain. Brown Boobies nest around the perimeter of this plain, and the smaller Red-footed Booby shares the roost colonies with the frigates.

d. In the last two years a breeding colony of several thousand Sooty Terns has begun using the island. Other members of the tern group using the island are the Gray-backed Tern and the Common Noddy, which also nest on the ground, and the Hawaiian Noddy, and Little Fairy Tern which nest in the bushes. The former builds a crude nest platform and the latter merely lays its egg on an open branch.

e. Three kinds of "moaning birds", the Bonin Island Petrel, Wedge-tailed Shearwater, and Christmas Island Shearwater, nest either in burrows or on the ground under the bushes during the warmer months of the year. The adults are normally seen about the island only at dusk and during the night, as they spend their daylight hours either on the nest or feeding at sea.

f. The most common migrants or wintering species; those which use the island only as a stopover on their north and south migrations, or remain several months to avoid extreme cold in their northern breeding grounds; are the Golden Plover, Ruddy Turnstone, Wandering Tattler, Sanderling, and Bristle-thighed Curlew. In addition, ducks such as the Pintail, Tufted, and Green-winged Teal occasionally stop on Green Island.

g. Green Island also supports a large population of the small polynesian rat. This animal lives on vegetation or off the bird colonies, and causes little or no damage to station facilities. Population numbers fluctuate from 30 to 60 rats per acre depending on the season. The island and surrounding lagoon waters also support about 150 Hawaiian Monk Seals, the only type of warm water seals left alive today. Close relatives have become extinct in the Caribbean in recent years, and are endangered in the Mediterranean, making the leeward Hawaiian Islands the last refuge for this species.

h. The extreme tameness of the birds and mammals on Kure is due to the fact that these animals have evolved and existed for centuries with no predators and, until recently, no contact with man. The island has been a refuge since 1909, and it is now due to the fine cooperation of the Coast Guard that the animals retain their lack of fear, and provide an interesting and productive study opportunity for personnel of the Smithsonian."

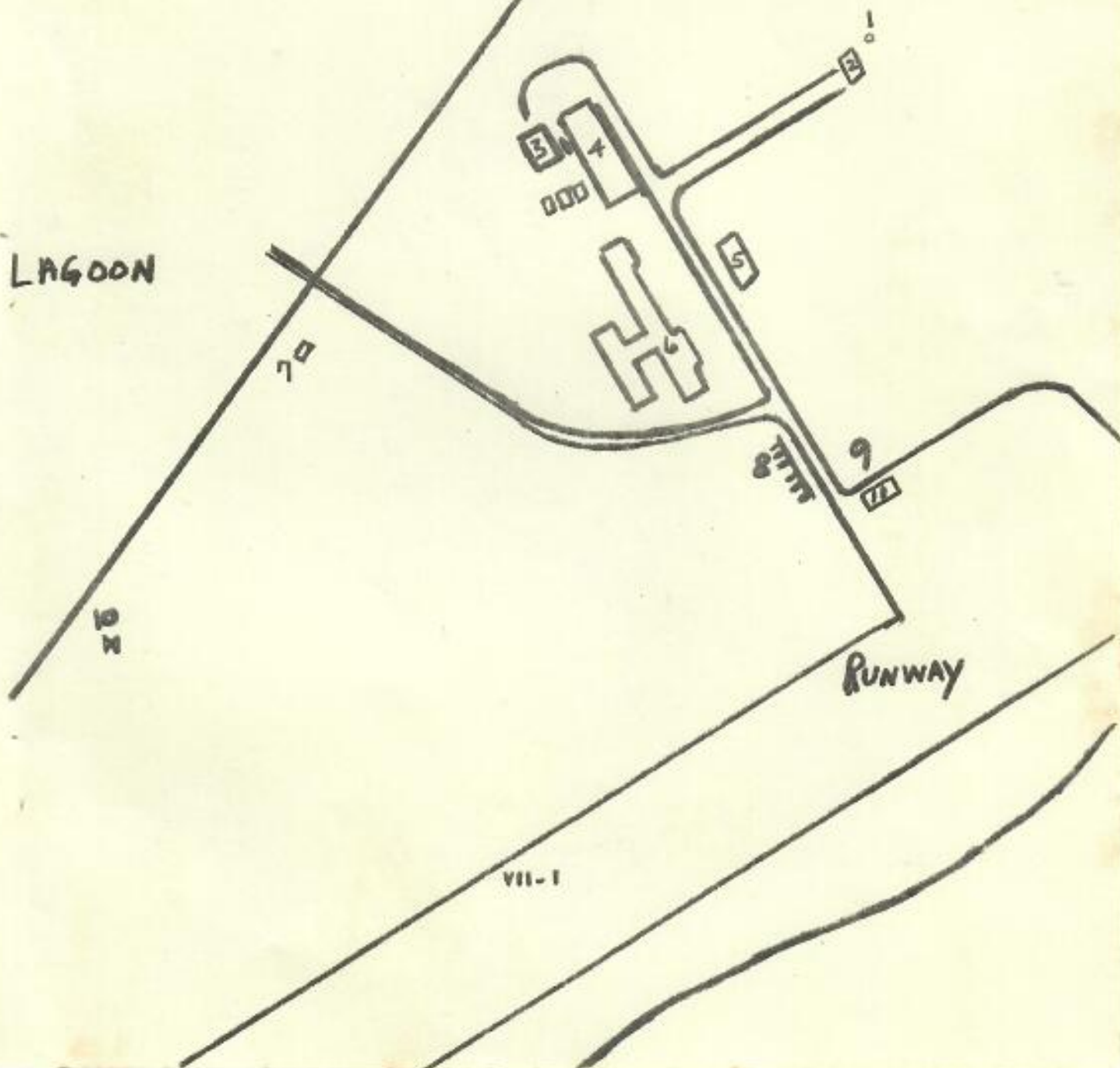
There are also various species of ants, wasps, flies, and lizards. Kure has no mosquitos or snakes.

2. OCEAN WILDLIFE: Along with the Hawaiian Monk Seal, as mentioned above, sea turtles are occasionally seen on the beaches and in the lagoon. These and all bird species are protected by law from being captured, molested, and killed. The lagoon abounds in fish and shellfish, and although snorkling and spear fishing are popular sports, no fresh fish are eaten due to the danger of poisoning from the coral they eat. Also to be treated with caution while diving are sharks (a shark watch is always maintained while swimmers are in the water), cone shells, and eels. But these are small risks, for the ultimate rewards of beautiful vistas of underwater coral formations, and the tasty delicacy of the langusta, close cousin of the Maine lobster.

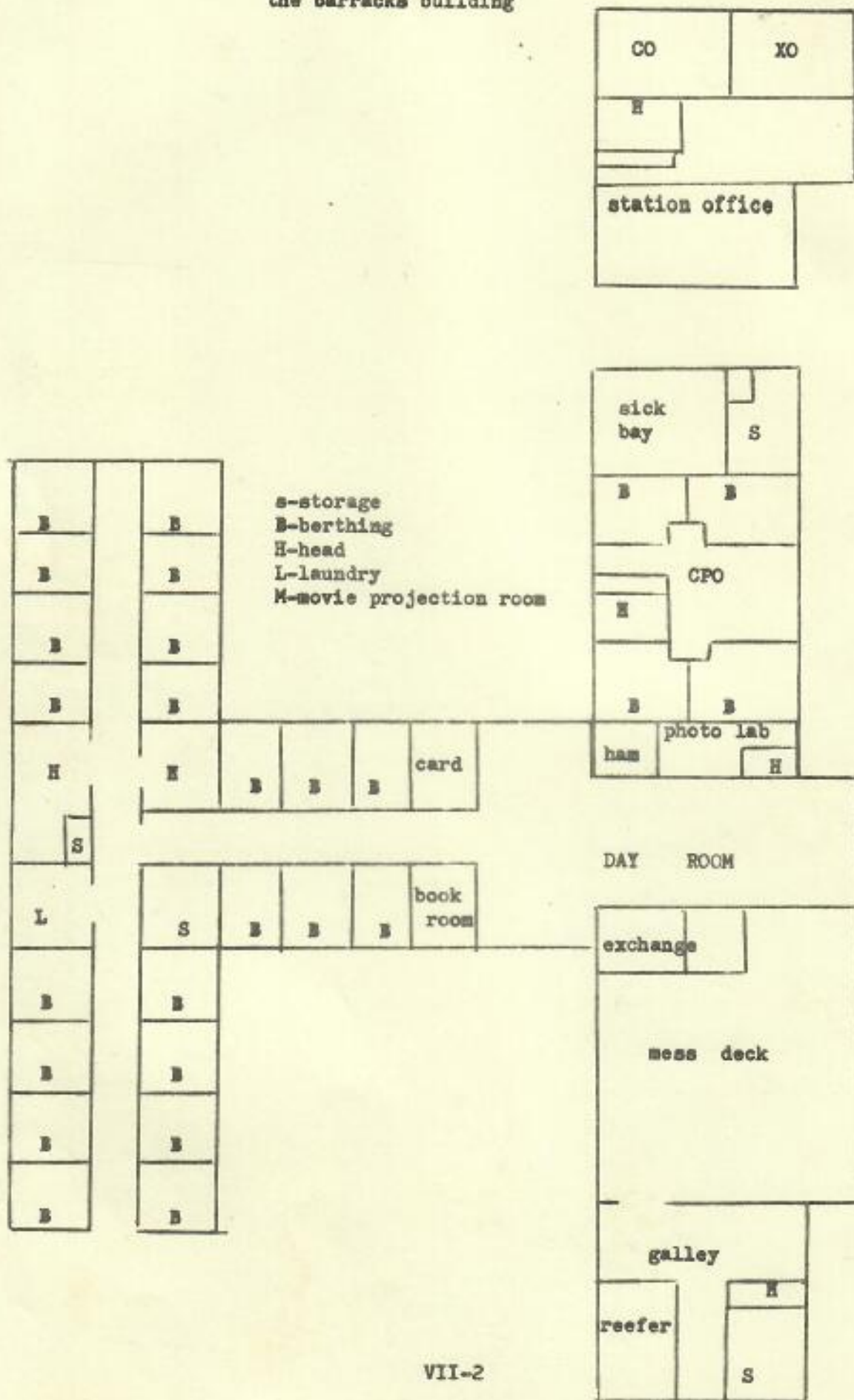
3. PETS: The station has three dogs and a colony of canaries.

KURE ISLAND

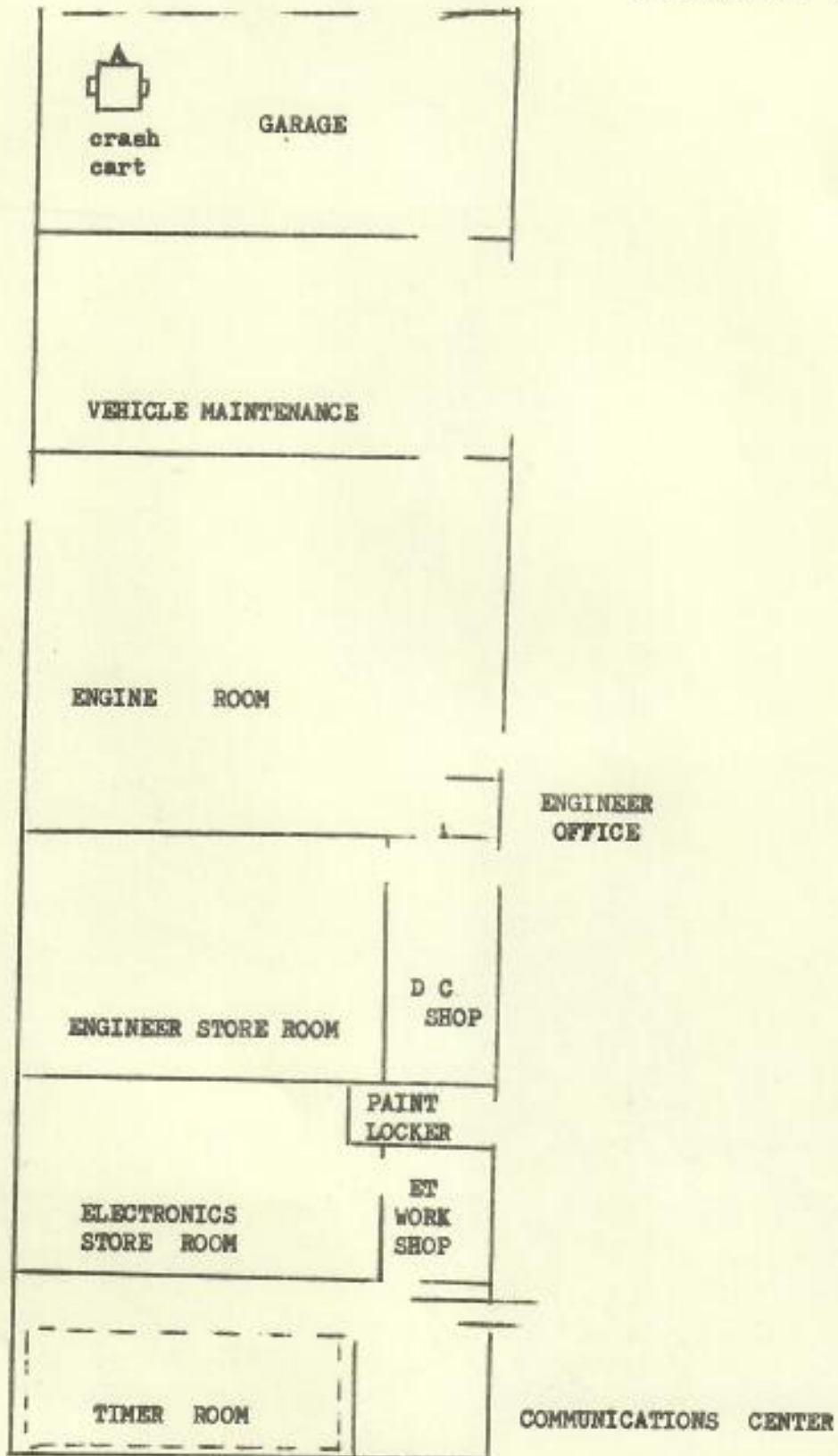
- 1 loran transmitting antenna
- 2 transmitter room
- 3 water tanks
- 4 signal-power building
- 5 tennis court
- 6 barracks
- 7 beach house
- 8 diesel fuel tanks
- 9 gasoline pump and storage
- 10 radar reflector
- 11 kure international
airport terminal
serviced by 'air gooney' airlines



the barracks building



SIGNAL/POWER BUILDING



CHAPTER VIII

GUIDANCE FOR RELIEF PERSONNEL

1. TOUR LENGTH: With the exception of the Coast Guard Representative on Midway, all the tours are 12 months of isolated, restricted duty. The Coast Guard Rep's tour lasts 18 months, but is not isolated, family housing is provided.
2. UNIFORMS AND CIVILIAN CLOTHING: The uniform usually worn is dungarees with chambray shirts and/or "T" shirts, but tropical dress blues are required for inspections. Civilian clothing is allowed on the station during off duty hours and may be used during trips to Midway or on compensatory absence. Incidentally, compensatory absence may be taken as accrued. Tennis shoes are recommended since most leather shoes are too hot.
3. OTHER THINGS TO PACK: Until you are sure of what you will need and what will be allowed, it is best to pack lightly and have the rest mailed. If you like to read, bring books, if a hobbyist, bring your hobby materials, but again good judgment must be used to insure that you will not be mailing things back a week after you arrive.
4. WHAT TO DO AFTER RECEIVING ORDERS: So now you know you're going to Kure. Don't despair. Isolated duty isn't as bad as all the stories you've undoubtedly heard. True, you'll be away from loved ones and familiar sights and sounds for at least six months, but six months becomes a short time when you realize the tremendous variety of things to do on Kure. You can indulge in sports, develop skills or learn new ones in the shops and lab, buy fantastic amounts of stereo gear (at overseas prices) to bend your ears, get off by yourself on the beach for a day, etc., etc., etc. All it takes to make it worthwhile is to realize that you must go and then proceed with an open mind.
5. TRAVEL TO AND FROM: Travel arrangements are usually made directly to Honolulu International Airport. It is best if possible, to try to arrange for a flight ahead of time so you know when you'll leave the mainland. Once in Honolulu, contact the Coast Guard Base Honolulu (phone 546-7114) and they will give you berthing and arrange your flight from Hickam AFB to Midway. At Midway, you will be met by the Coast Guard Representative who will take care of everything until you arrive on Kure. The return trip is just the reverse. Flights between Honolulu and Midway are on Thursdays and Saturdays, while those between Midway and Kure are on Mondays and Fridays.
6. QUESTIONS???????????? Write:

Commanding Officer
USCG Loran Station
U. S. Naval Station, Box 36
FPO San Francisco 96614

