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A major international support service contractor recognized for excellence and quality performance is seeking former U.S. Navy personnel for positions on a potential contract for Midway Island.

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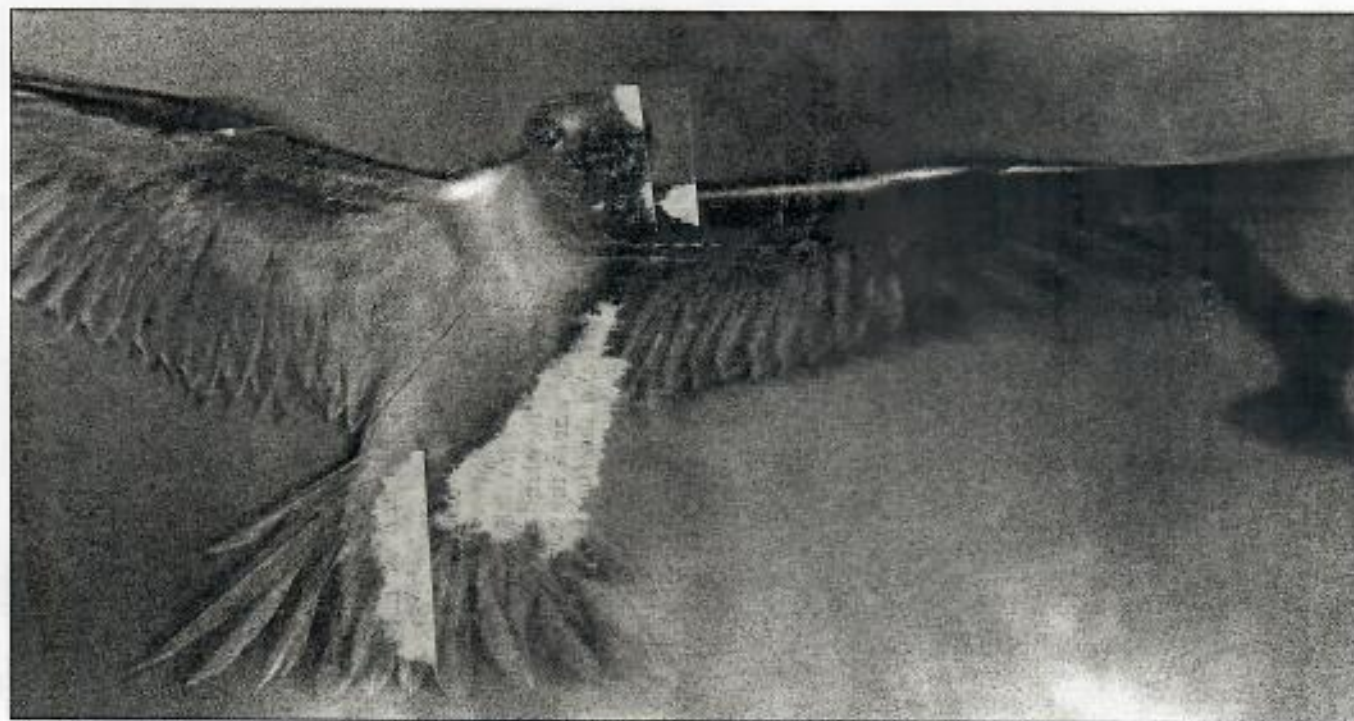
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July 1981

Travel With the Navy packing up and leaving in June, Midway is banking on ecotourism to generate money to protect its spectacular wildlife. **Susan Essoyan**

Midway: Luring Ecotourism



Midway's principal inhabitants are its flourishing wildlife, including a multitude of winged species. Wilson Photography.

The blond flight attendant flashed a smile as our 19-seat turboprop plane headed from Kaua'i to Midway Atoll, the world's newest ecotourism destination.

"Welcome aboard Phoenix Air," she cooed in a soft Southern drawl. "My name is Cindy, and our pilot today is Capt. Hans—" She paused for a moment, then finally added with a sheepish look: "I just can't say his last name, so I won't even try."

If you think Hawai'i is laid-back, try Midway Atoll, where everyone knows your first name—at least. More than a million albatross and other sea birds nest on this array of three sandy islands set in sparkling turquoise waters. The human population, on the other hand, tops out at 300, including pilot Hans Lutjens, who

Susan Essoyan was the author of "The Exploding Telephone" (July '96), which anticipated the free-for-all in the telecommunications industry.

hails from Georgia.

Yes, Georgia. One of the most remote Northwestern Hawaiian Islands, Midway today is a beguiling blend of the unlikely. You'll find slow Southern accents and hot Sri Lankan curry. One-speed Huffy bicycles and state-of-the-art cellular telephones. Downy-soft baby birds dozing near rusty gun emplacements. More dolphins than tourists in the lagoon.

Best known as the launching site of the battle that turned the tide of World War II, Midway has something of a split personality. Long a naval air facility, it also became a National Wildlife Refuge in 1988. Today the military base is shutting down and a metamorphosis is under way at this Pacific outpost, the remnants of an ancient volcano "midway" between California and Japan.

After barring public visitation for 50 years, Midway now wants to tempt tourists to its shores. The U.S. Fish and Wild-

life Service cannot afford to maintain the refuge on its own when the last Navy personnel leave next June. But by teaming up with the private sector to allow limited ecotourism, it hopes to generate money to protect Midway's spectacular wildlife.

The federal government's partner in this enterprise is Midway Phoenix Corp. of Cartersville, Ga.—hence the incongruous accents. When I stepped off the plane and into the hangar, another charming Southerner greeted me. He issued me a room key, a bicycle and a cellular telephone. That's all you need on Midway.

A four-minute van ride brought me to my room, in a basic beige low-rise that was once Navy bachelor officers' quarters. Midway has only a handful of buildings—none taller than its ironwood trees—few roads, and virtually no cars. You'll see the occasional pickup truck or van chug by at 15 mph, the island speed limit, but everyone else relies on leg power.

TRAVEL

Midway's only populated island, Sand Island, measures just over 2 square miles. The standard-issue "Savannah Cruise" bikes are more than adequate for the terrain, which rises just 10 feet above sea level.

I had expected Spartan accommodations, in keeping with the refuge/military base atmosphere. Instead, I opened the door to an attractively furnished two-room hotel suite, complete with air conditioning and television. When I flipped on the TV, a commercial pitchman urged me to hurry in to pick up a "snow scraper" for my car—it was 80 degrees outside. Midway's "local" channel, it turns out, originates in Denver.

If Hawai'i is in the middle of nowhere, Midway is on the outskirts of nowhere. The atoll lies 1,250 miles west-northwest of Honolulu, and the flight from Kaua'i takes three-and-a-half hours. It is federal property, part of no state. Given Midway's isolation, turning it into a vacation destination poses tremendous logistical challenges.

Why would a company from far-off Georgia even bother? Just keeping the island running—the airport, harbor, roads, sewers, etc.—has cost the U.S. Navy close to \$5 million annually. Midway Phoenix will pick up the tab, as well as the hefty cost of bringing the place up to snuff for the traveling public. For what? The right to bring in no more than 100 tourists at a time?

"This will lose money like a sieve for the near term," acknowledged Dent Thompson, Midway Phoenix vice president. "But you have to look at the long term. For Midway Phoenix Corp., it's a great business opportunity."

Keeping Midway operational makes sense for another reason. Thompson and his brother, Mark, Midway Phoenix's president, are also officers in a separate company, Phoenix Air Group Inc., also of Cartersville, Ga. A major aviation contractor for the Department of Defense, Phoenix Air Group relies on Midway's strategic airstrip and wants to keep it open.

There is no denying Midway's al-

lure for the ecologically inclined. I spent my three days on the atoll enthralled by its native inhabitants. (Other than its wildlife, Midway has no indigenous population.) Its most famous residents, the entertaining "gooney birds" or Laysan albatross, were out at sea. But other sea birds and sea creatures made up for it.

As I headed out for breakfast in the morning, delicate snow-white terns flew up to greet me. They approached me one at a time, hovering like white-robed angels just an arm's length from my face, wings fluttering, big black eyes searching mine. It happened over and over, and never failed to enchant me.

During my visit, construction workers were just laying the foundation for a beachfront restaurant to supplement the galley inherited from the Navy. So we took our meals cafeteria-style, at military

been removed from the island, except its weatherbeaten runway, now used as a walking path. Boobies and frigate birds roosted in ironwood trees, looking ungraciously until they set off in graceful flight. Red-tailed tropicbirds entertained us with aerial acrobatics, flying in vertical circles around each other in courtship.

The Wildlife Service decided against simply letting nature take its course on Midway because the atoll's ecology has been disturbed by humans and is too vulnerable. Fields of bright yellow verbesina have taken over large stretches of land. Like the ironwoods, these daisylike flowers are considered a pest by the Wildlife Service, claiming precious bird nesting habitat.

The federal agency is working hard to replace such species with native plants such as naupaka and bunch grass. It re-



Photo by Susan Essayan

The Wildlife Service is working hard to replace ecological pests such as the bright yellow verbesina with native plants like naupaka.

hours. Breakfast was served from 5:30 to 7 a.m.; dinner from 4:30 to 6:30 p.m. The food, however, was hearty and surprisingly tasty. Many of the support workers for the Navy are from Sri Lanka, so spicy curry was always one option. When the Navy leaves in June, the cafeteria schedule will shift to more civilized hours.

After made-to-order omelettes, we caught a boat to Eastern Island, the first spot dive-bombed in the Battle of Midway. The island now is for the birds, literally. And the monk seals.

All signs of human habitation have

cently succeeded in eradicating the rats that preyed on bird eggs and chicks on Eastern Island. On Sand Island, federal workers are creating more bird habitat by tearing down old buildings that have no historic value, including barracks and a school. In its heyday during the Cold War, as many as 3,000 people lived on Midway.

I spent my second day in the water, courtesy of Midway Dive-n-Snorkel. Capt. Larry Millwood of Milliani took us outside the circular reef that shelters Midway. Three dark manta rays with "wing spans"

TRAVEL

of up to 10 feet undulated across the water. A diver swam below one of them, then turned on his back to look up at the odd creature with bulbous eyes and pancake-like body. The manta surprised him by following suit, flipping over as well.

As I submerged in search of the fat-lipped ulua that have already put Midway in the record books, a dozen spinner dolphins swam up. They zigzagged effortlessly around me, and I could hear them squeakily chattering back and forth underwater. The closest was just 5 feet away.

A couple of them put on speed and leapt corkscrew into the air.

I was in heaven. This was true wildlife, not some encounter with penned dolphins at a resort. These inquisitive mammals had chosen to approach me. They were free to swim off when their curiosity was satisfied.

That afternoon, we snorkeled inside Midway's fringing reef, encountering parrotfish, tangs, butterfly fish, rose-colored wrasse, needlefish, huge sea cucumbers, green sea turtles, you name it.

As we were boarding the boat to

leave, a bewhiskered Hawaiian monk seal popped chest-high out of the water, holding itself upright like a ballerina balancing on tiptoe. Federal law requires that these highly endangered mammals be given a 100-foot berth. This one was not 50 feet away. We were spellbound.

The seal looked straight at us for several minutes, head tilted in an inquiring sort of way, as if to ask, "What are you doing in my lagoon?"

It is, indeed, a fair question. Tension is inherent between the two missions on Midway today—the refuge and the so-called "resort." Will visitors be disciplined enough to keep their distance from the sensitive seals? Will the dolphins tire of human encounters? Such concerns nag the Fish and Wildlife staff.

"We don't want it to be a resort experience, but a lot of people still use the 'R' word," said Ken Niethammer, refuge manager for USFW. "It's a balancing act right now between the need to protect the wildlife, and the need to get people interested in coming in."

The service has taken care to minimize the impact of human beings. Starting in June, only 250 people will be allowed at Midway at any one time. Most of the beaches, open during the Navy's tenure, will be closed in deference to the monk seals. Visitors' movements are already restricted, and divers must be accompanied by guides. Sport fishermen use only barbless hooks and release everything they catch.

"Fortunately, the cooperators [private partners] have a good attitude," Niethammer added. "They know the resource is their drawing card and they don't want to do anything to destroy it."

Midway is a laboratory of the cycle of life, showcasing evolution in action. Its wildlife, like that of the Galapagos Islands, has remarkably little fear of humans, and provides an unusual opportunity to educate the public about the connections among all living creatures.

"We can show you all kinds of pictures of albatross, but until you sit in the middle of a colony of hundreds of thousands of them, it doesn't have the same impact," Niethammer said.

Midway is home to the world's largest colony of Laysan albatross, an estimated 430,000 nesting pairs. Superb gliders, they deftly snare quick-moving fish, but have little practice landing on solid earth. They come down with a thud and tumble, then stagger to their feet, trying to look dignified.



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"The juveniles sit on their rears with their feet sticking out in front," Millwood said. "As you walk by, they wobble, trying to turn their body to watch you, snap-snapping, trying to be scary. It's just hilarious."

On Eastern Island, we happened upon a few carcasses of albatross that hadn't made it. Exposed inside their bodies were an array of unnatural objects, including plastic cigarette lighters and even a toothbrush. The birds mistook such glittering litter floating in the ocean for fish or squid. Just as the sight of one starving child can bring home the agony of an entire people, these unfortunate birds highlight in a direct way the hazards of marine pollution.

Along with its ecological dimension, Midway is steeped in history. The pitched-roof cable station buildings that relayed the first around-the-world cable message in 1903 are still standing. Street names like "Nimitz Avenue" and "May Day Street" attest to Midway's military past. You can see "instant pillboxes" untouched since World War II, when tank turrets were hastily stuck in the ground atop shallow tunnels. In 1942, U.S. military intelligence cracked Japan's code, giving Midway two weeks' warning of an impending attack. The United States ambushed the Japanese fleet north of Midway, changing the course of the war in the Pacific.

As I bicycled down an abandoned runway, lost in thought, an elegant gold-flecked bird with a long, delicately curved beak swooped up. I learned later that it was a bristle-thighed curlew. It kept pace with me for a while and called out with a soft version of a construction worker's whistle.

Which brings me to the social life, such as it is, on Midway. Midway is not, at the moment, a family affair. The current ratio of men to women is at least 10-to-1. Most residents are Navy support workers from Southeast Asia; others are construction and clean-up crews from Hawai'i. While the Navy is in command, no children under 18 are allowed on the atoll.

The social center is the All Hands Club, a cavernous bar that features darts, shuffleboard, pingpong, pool, foosball and occasional live music.

Residents also get their jollies at a 1960s-style bowling alley that features 1960s-style prices, 25 cents a lane. Every other Saturday night is Bingo Night at the club, and most everyone turns up. The

numbers are read Midway-style, twice, in slow motion.

"We do it only every other week," chuckled burly Brian O'Kelley, as he straightened the markers on his bingo card. "Otherwise, our hearts—." His beefy hand fluttered over his chest in mock palpitation as his voice trailed off.

If you think you can handle such excitement, if you are ready to experience truly wild life at a leisurely pace, you may enjoy the good ol' Southern welcome you'll find at Midway.

Oceanic Society Expeditions (800-326-7491) offers ecology and historic tours as well as volunteer research expeditions to Midway.

Midway Dive-N-Snorkel (888-329-9559 toll free) offers scuba diving and snorkeling tours. Both companies' packages start at about \$1,600, including airfare from Kaua'i, room, board and activities.

Midway Sportfishing (770-254-8326) offers offshore and saltwater fly-fishing expeditions for \$6,500 per person, per week, all-inclusive. **PAO**

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In a scarred land, the healing has begun

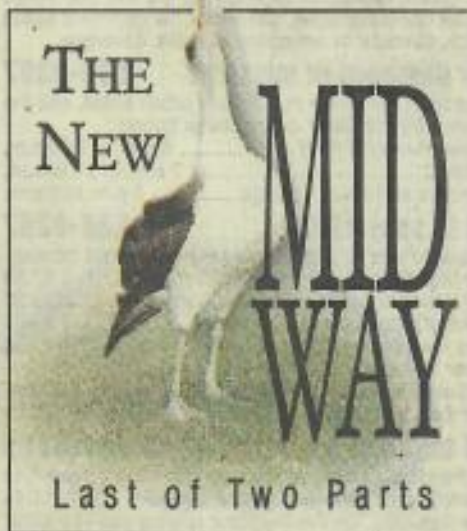
Midway Atoll has been used and abused, but a \$43 million cleanup promises new life

BY JOAN CONROW
Star-Bulletin

SAND ISLAND, Midway Atoll — Although it's one of the most remote places on Earth, Midway Atoll has not escaped the ravages of human junk and pollution.

Albatross chicks, their bellies filled with floating plastic sea trash that their parents mistake for squid, die of dehydration because they cannot eat enough food to produce the fluids they need.

Jet fuel leaked from underground storage tanks taints much of the atoll's groundwater. Old buildings contain asbestos and lead paint, while utility transformers harbor toxic PCBs. And



in some places, the banned pesticide DDT and other chemicals have leached into the soil.

Still, some 2 million sea birds continue to nest and rear their young on Midway, prompting federal officials to believe the naval air field warrants a \$43 million cleanup to find new life as a wildlife refuge.

"The conditions of these islands are a measure of health of the whole north Pacific area," said Kenneth Niethammer, who manages the U.S. Fish and Wildlife Service's Midway refuge. "The Earth has the ability to heal itself if we stop doing to it what we are."

▲▲▲

Midway Atoll's landscape of shifting

PLEASE SEE MIDWAY, A-8

HONOLULU STAR-BULLETIN 1/7/97 A1

MIDWAY: 'Humans giving back to the wildlife'

FROM A-1

sand dunes and beach-hugging native plants has changed dramatically since 1903, when workers with the Commercial Pacific Cable Co. brought in tons of topsoil, ironwoods and other exotic vegetation. Pan American World Airways later built facilities for its Flying Clipper seaplane operation, along with a 45-room hotel and swimming pool.

Alterations accelerated when the U.S. Navy took over, dredging a channel through the reef in 1938 and constructing an air station and submarine bases on Sand and Eastern islands. Intense World War II battles and years of military use took a heavy toll, and federal contractors faced a daunting task as they prepared to clean up the atoll prior to the Navy's June 30, 1997, departure.

"We didn't know what to expect when we started this (cleanup) process," said John Naughton, a biologist with the National Marine Fisheries Service. "We didn't know what was dumped. We spent a year just identifying the potential contaminants."

Refuge manager Niethammer said that although the scope of the cleanup was largely dictated by human health concerns and environmental laws, the Navy has "gone further and responded to wildlife concerns."

Naughton agreed.

"I've been extremely pleased with their actions, and we're actually up there on the scene, keeping an eye on things, so we know it's not just lip service."

Most of the work has been done by OHM Corp., a Navy contractor that began cleaning up Midway in 1994, said Kevin Miller, who coordinates the firm's activities there. Its biggest job has been removing jet fuel from the atoll's groundwater, which lies 5 to 8 feet below the surface. Although island residents use catchment systems, the brackish groundwater is being cleaned to protect wildlife and the ocean from pollution.

OHM developed a Fluid Injection Vapor Extraction system for such projects, Miller said, and for the past nine months has been running the world's largest such system on Midway. Fluids are extracted from 100 wells drilled around the atoll and run through a porous medium where the solvent is burned off and the vapors are collected. The vapors are then purified and returned to the ground through one of 200 injection wells.

More than 33,000 gallons of jet fuel — and a much higher quantity of vapor — already have been

recovered and used to power the two 16-cylinder generators that run the system around the clock.

"The beauty of this is that it's a totally closed system," Miller said. "No leftover fuel will have to be shipped off."

The firm brought in the first mobile laboratory to be certified by the Navy so it can monitor water samples and quickly test for the presence of pesticides and other chemicals, Miller said.

OHM crews also have removed more than 100 underground jet fuel tanks, including two with a capacity of 2 million gallons each, and they've excavated some 7,000 yards of soil contaminated with petroleum, Miller said.

About half of that soil may be reclassified as clean under newly revised Environmental Protection Agency standards, Miller said, while the rest may be used in road repairs, shipped off-island or run through a pug mill, where it is mixed with cement to trap the contaminants and then added to the landfill.

That process, known as stabilization, already has been used on Midway to dispose of soil containing DDT, asbestos and lead-based paint residues. Although the process is approved by the EPA, Naughton said he and other scientists worry that the materials may one day break down and leach into the water.

"We need some kind of long-term monitoring," Naughton said, "but we're still working on that. Time will tell, but I feel very encouraged."

OHM has conducted the marine salvage efforts as well, removing more than 68 vehicles and 300 batteries from the lagoon. Navy divers detonated 23 gas cylinders in the harbor, while other contractors have sampled water quality and sediment and analyzed algae and reef fish tissue in search of toxic wastes that may have entered the food chain.

So far, Naughton and Niethammer said, tests show that initial concerns about extensive marine pollution have not been borne out.

"It's looking pretty good," Naughton said. "I think we'll be in good shape by the time of the pullout. I just hope we don't run into anything from out in left field."

Lt. Bill Shoemaker, officer in charge of Midway, said the Navy also will repair roads and seawalls, remove stockpiled debris and materials, cap landfills and complete other housekeeping tasks before it leaves.

Sea birds and monk seals already are responding. As areas are cleared of brush and buildings, albatrosses move in and make nests. Monk seals lounge on beaches closed to humans.

"Once man has made his imprint here, it's gonna be changed," said Bob Diele, an outdoor recreation planner with the Midway refuge. "We're just trying to tip the balance more in favor of the wildlife."

Antennas and overhead wires have been removed, saving birds from having their wings sheared and plunging to their deaths. Outdoor lights that disorient night flying bonin petrels will be lowered or shielded.

Black plastic has been installed around areas still being cleaned to protect birds from contaminants in the soil, and old landfills have been covered with 4 feet of sand to make them attractive nesting sites for burrowing birds.

The Fish and Wildlife Service plans to remove more of the ironwood trees that snare albatrosses in flight and still faces the awesome task of eradicating acres of invasive weeds. It also will continue to fight the rats that prey on ground-nesting birds. The rodents have been eliminated from Eastern and Spit islands, but the battle continues on Midway.

Fish and Wildlife spokeswoman Barbara Maxfield said the agency anticipates that improving wildlife habitat and revegetating areas with native plants will be a long process.

"We don't have all the answers, either," she said.

Agency partner Midway Phoenix Corp., which handles tourism and infrastructure, has its own challenges. The firm must maintain new fuel storage tanks, construct a trash incinerator and build a septic system to replace the current practice of releasing untreated sewage into the lagoon.

Those projects are expensive and difficult, given Midway's remote location, said Mike Gautreaux, the firm's island manager.

"We call it the Midway way. Everything is hard."

The Fish and Wildlife Service doesn't intend to remove all traces of the atoll's human history. Historic buildings and military memorials and artifacts will remain alongside buildings that serve visitors.

"Midway will never be taken back to what it was before man got here," Niethammer said. "But this is an example of humans cleaning up and giving back to the wildlife. And with the world's population expanding, there are not many places like that."

Howe Lulu STAC-BULLETIN 1/7/97 AB

Distance from Oahu:
About 1,100 miles

Midway
Island

Pacific
Ocean

Midway Atoll

Midway Atoll is composed of Sand, Eastern and Spit islands and their encircling protective coral reef

- Where: 1,250 miles west-northwest of Honolulu
- Size: 1,534 acres, approximately 5 miles in diameter
- Age: 25-30 million years old

Getting there

Tourist activities are provided solely by Midway Phoenix Corp. and its three subcontractors:

- Midway Dive-N-Snorkel offers five- and eight-day scuba diving and snorkeling packages ranging in price from \$740 to \$2,994, plus airfare. Call 888-329-9559
- Oceanic Society Expeditions offers four-, five- and eight-day natural history tours at prices ranging from \$1,550 to \$2,250 per person, including airfare from Lihue. Call 800-326-7491
- Midway Sport Fishing Inc. provides weeklong big-game fishing packages ranging from \$4,000 to \$10,000 per person, including airfare from Lihue. Call 770-254-8326.
- To book airfare and rooms only, call Midway Phoenix at 770-387-1900. Round-trip airfare is \$999 from Lihue; \$699 through June 1 for Hawaii residents. Prices for a room and three meals range from \$100 to \$200 per night. Bicycles and cellular telephones can be rented for \$5 each per day; golf carts are \$25 per day.



“
*I plan on dying right
here, I like it so much.
It's a dream place to me.*

”
Mike Gautreaux

*Manager of Midway Atoll's
infrastructure and tourism
services*

Ecotourists are helping resurrect Midway

BY JOAN CONROW
Star-Bulletin

SAND ISLAND, Midway Atoll — Doris Carson maintained a stream of soothing chatter as she moved through a sea of Laysan and black-footed albatrosses, counting those sitting on eggs and marking active nests with biodegradable red dye to show they'd been included in the census.

It's not the first time Carson and her husband, Lewis, have taken a vacation to help others working with nature.

"We're more interested in traveling to get to know people or the history of an area," said Carson, a retired teacher from Kingsport, Tenn., whose past excursions have included archaeological digs in Alaska and habitat restoration in Guatemala. "And natural history is really my thing, so this is a good place to do it."

Carson and dozens of others coming to Midway Atoll to monitor spinner dolphins, count birds, pull weeds and plant native vegetation are among a growing breed of travelers "who don't want to be just a tourist," said biologist Steve Barclay. "They are really, really appreciative of being able to work with the wildlife, not just view it."

Jane Witman, on Midway recently for her first service trip, agreed.

"You feel like you know more about the birds and their habits. It just adds to the fun, and I'm glad that I can contribute something to help."

Kenneth Niethammer, who manages the Midway national wildlife refuge, said the ecotourist volunteers expand the capabilities of his limited staff.

Their help in the bird census, for example, meant the difference between estimating



counting the numbers of nesting birds, Barclay said. Such accuracy is important, he said, because sea bird populations and health are good environmental indicators.

But Niethammer said it's not only the volunteer labor he appreciates, but the spirit of those who spend their time and money to help restore the environment.

"It reinstills my enthusiasm in the job," he said.

Barclay said the volunteers gain a better understanding of the issues facing wildlife managers, which makes them informed conservation voters and good teachers in the community.

George Butler, who lives in a retirement community in Mesa, Ariz., often makes notebooks of his service trips to share with his neighbors. He said many will be interested in his Midway excursion because they remember the battle waged there in World War II. Butler does a lot of volunteer work at home, and the service trips "seemed a good way to do something constructive. Besides, it's just a scream to watch the birds."

Most of the volunteers are brought in by Oceanic Society Expeditions.

"It's really the ecosystem that's being studied out here, and that appeals to me," said naturalist Barbara Bilgre, who runs the company's Midway program.

She's designing protocol for a research program to study Midway's resident spinner dolphins and said she will be seeking permits to allow students to get in the water with the animals.

Volunteers also can join efforts to map the distribution of octopus dens — a main source of monk seal food — to determine how large a population of monk seals the atoll can support. Or they can help restore the atoll's coral reefs by untangling and removing old fishing nets.

Future projects will be aimed at monitoring monk seals, sea turtles and tiger sharks.

Much of the research is designed to be carried out by people who don't have scientific training. Bilgre said the program attracts folks from all walks of life, although most are highly educated and more interested in wildlife than leisure.

"It's more of a retreat than a resort-type place, an opportunity to have that Zen feeling with wildlife," she said.

Midway visitors don't have to do field work to learn about the flora and fauna. Dive and snorkel tours offer information about the marine environment, and the Fish and Wildlife Service is developing interpretive and educational programs of its own, some of which use Oceanic's guest lecturers.

The service also has hired an outdoor recreational planner to ensure that Midway tourists can make the most of their visit, Niethammer said.

"Some want to be active, others want to be quiet, so we have to do a lot of planning to provide lots of different options for people."

THE NEW MIDWAY

IT'S FOR THE BIRDS

THE ECOTOURISTS



Albatrosses nest near World War II equipment on Eastern Island at Midway Atoll.

PHOTOS BY JOAN CONROW, Star-Bulletin

The albatross almost had its swan song on Midway Atoll when U.S. military operations were in full swing. Now, with the military all but gone and a wildlife refuge and hopes for tourism holding sway, it's a new day on Midway, and the albatross's turn to crow.

BY JOAN CONROW
Star-Bulletin

SAND ISLAND, Midway Atoll — Seabirds again reign supreme on Midway Atoll. Gone are the days when poachers decimated flocks of birds to gain feathers for the hat trade, and machine guns and front-end loaders cleared albatrosses from military runways.

Now planes arrive and depart in the dark to avoid hitting birds in flight. Albatross chicks that wander onto the runway are collected by pickups when a plane is due, then returned to their places when all is clear. And contractors cleaning the island prior to the June 30 closure of the naval air field hire men to clap their

PLEASE SEE MIDWAY, A-10

FIRST OF TWO PARTS / TOMORROW: A RAVAGED ENVIRONMENT

Animals, ambience make

By JOAN CONROW
Star-Bulletin

SAND ISLAND, Midway Atoll — Maybe it's the sheer numbers of birds, or the remoteness, or the gorgeous white sand beaches and crystal clear water in dreamy shades of aqua. Or it could be the unique ambience of the place, a cheery blend of tiny town, summer camp, military base and campground.

Whatever the reason, folks seem to go ga-ga over Midway.

Mike Gautreaux, who manages the atoll's infrastructure and tourism services, has picked out his gravesite. "I plan on dying right here, I like it so much. It's a dream place to me."

His feelings are shared by Heidi Auman, who estimates she works 70-hour weeks — 50 of them as a U.S. Fish and Wildlife Service volunteer and the rest as a substitute stewardess on the sole air carrier — in hopes of securing a permanent job on the atoll. "I'll do just about anything to stay on Midway," she vowed.

Most agree the atoll's charm lies in its birds and its people.

Albatrosses swoop low over the sea, their white breasts and underwings reflecting the intense turquoise hues of the water. Ashore, they nest on every bare patch of land, their constantly clacking bills making the same soft drumming as rain on a tin roof. Younger birds endlessly practice the courting ritual, their circling dances and howl-like cries lending a surrealistic air.

At night, bonin petrels come dive-bombing, while during the day, curious, big-eyed fairy terns flutter at shoulder height. "It's like being in wonderland," said Navy Lt. Bill Shoemaker.

He's the last officer-in-charge of Midway, overseeing the June 30 military pullout, and he wishes he had come earlier. "I love the community. It's so much of a Mayberry-type place," he said, referring to the idyllic television town where Andy Griffith was sheriff. "We all ride bikes and wave."

Shoemaker also enjoys the atoll's ethnic diversity, provided by the roughly 180 foreign nationals who work in food service, main-

tenance, construction and other support jobs. The men hail from Thailand, the Philippines and Sri Lanka, working for about \$1.10 an hour, plus room and board.

Most of them will remain, working for Midway Phoenix instead of Navy contractor Piquini Management Corp. The atoll will average about 250 permanent residents, nearly all of them men. That's down from a military high of about 3,000 during the Cold War.

Most of the contract workers live in converted military barracks, while other residents have small homes. All are clustered within a block of the dining hall, gym, weight room and clinic.

Midway Mall, with its tiny general store, offices and bowling alley, is also within a block. Its all-hands club is a popular gathering place, and the whole town turns out for bingo on Saturday nights.

"It's always been my fantasy to live on a small island where I don't lock my doors, I know everybody's name and I just do dolphin research," says Barbara Bilgre, a naturalist who runs the Midway operations of Oceanic Society Expeditions. "And this is it."

Midway a tough place to leave



BY JOAN CONROW, Star-Bulletin

Lt. Bill Shoemaker, officer-in-charge of Midway Naval Air Field, stands on the porch of his historic home. President Nixon and South Vietnamese President Thieu conducted secret meetings there in 1969.

ALOHA, MIDWAY

Navy operation is now behind, cleanup for a new role is ahead

By Jon Yoshishige
Advertiser Staff Writer

M IDWAY ISLAND — This tiny spit of sand 1,300 miles northwest of Honolulu is part of Hawaii, yet it's not.

Ironwood trees dominate the coastline of blinding white sand; plumeria, coconut and Norfolk pine trees dot grassy lawns. It is like a slice of countryside from the Neighbor Islands, or a beach park on Oahu's North Shore.

But the two tiny islets that make up Midway are the only pieces of the Hawaiian archipelago that aren't part of the state.

That's because, on Jan. 20, 1903, President Theodore Roosevelt placed Midway "under the jurisdiction and control of the Navy Department" because of complaints of foreign squatters and poachers.

On Friday, that control symbolically ended.

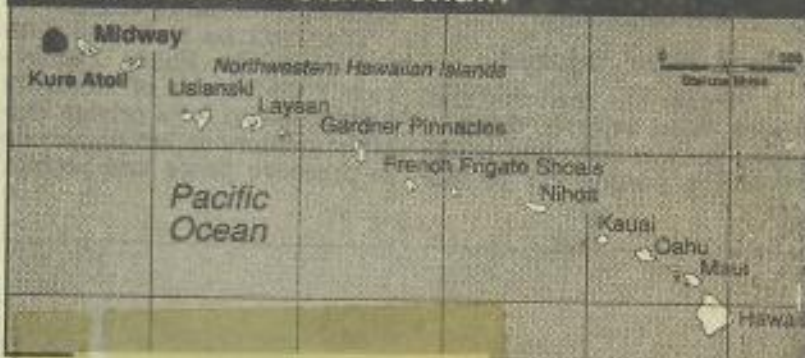
In a brief ceremony under a warm morning sun, Capt. Timothy Rocklein, commander of Barbers Point Naval Air Station, operationally closed Midway Island Naval Air Facility.

Rocklein

That means Midway will no longer operate as a refueling stop for military aircraft — its primary mission in recent years.

Daily life will not change much in the immediate future, Rocklein told those attending the ceremony, which included most of Midway's roughly 180 residents.

The Hawaiian island chain



• SUNDAY, Oct. 3, 1993
The Honolulu Advertiser A3

Midway's history

- July 5, 1859 — Capt. N.C. Brooks of the Hawaiian bark *Gambia* discovers Midway.
- Aug. 28, 1867 — Navy Capt. William Reynolds takes possession of Midway for the United States.
- Jan. 20, 1903 — President Theodore Roosevelt places Midway under Navy jurisdiction and control. Later that year, Commercial Pacific Cable Co. establishes trans-Pacific cable relay station there.
- April 12, 1935 — Pan American World Airways sets up airbase for weekly trans-Pacific Flying Clipper seaplane service.
- Aug. 1, 1941 — U.S. Naval Air Station Midway Island is commissioned.
- Dec. 7, 1941 — Japanese ships returning from attack on Pearl Harbor and other Oahu sites shell Midway, killing four men, including the war's first Marine Corps recipient of the Medal of Honor.
- June 4-6, 1942 — Battle of Midway turns the tide of the war against Japan. Planes from U.S. aircraft carriers and from Midway defeat Japanese invasion force, sinking four Japanese carriers and a cruiser.
- June 8, 1969 — President Nixon and South Vietnam President Thieu hold secret meetings at Midway House, the base commander's home.
- March 1982 — Base functions performed by military personnel are transferred to civilian contractors.
- March 12, 1993 — Defense Base Closure and Realignment Commission recommends closing Midway Island Naval Air Facility. Congress and President Clinton later approve.
- Oct. 1, 1993 — Naval air facility officially closes.

"We had a big operation," says Navy veteran John Kolb, who was stationed in the torpedo shop here for 20 months during the war. "Just about every submarine in the Pacific would rearm and refuel at Midway," he said last week in a telephone interview from his home in Eagan, Minn. After that war, Midway "remained an important link in the Western Pacific" during the Korean and Vietnam wars, said Rocklehn, whose command includes operations on Midway. "And for over three decades, Midway filled a vital role as an

airfield and support facility for patrolling submarines. During the war, it was a busy airfield and support facility for trans-Pacific travel and communication before World War II. During the war, it was a busy airfield and support facility for trans-Pacific travel and communication before World War II. During the war, it was a busy airfield and support facility for trans-Pacific travel and communication before World War II.

Most will remain here as the Navy determines how and to what extent the island will be cleared after nearly a century of human occupation. That assessment and the cleanup itself are estimated to take five to seven years, the Navy said.

Just 28 Americans, including six Navy personnel, live on Midway. They oversee a contract work force of about 90 Sri Lankans, 50 Filipinos and 12 Thais.

Tiny island has its fans among

By Jon Yoshishige
Advertiser Staff Writer

MIDWAY ISLAND — Unlike other facilities shutting down under this year's base closure recommendations, politicians didn't agonize over closing isolated Midway Island Naval Air Facility.

But a few of its residents are mourning the move.

"It's sad to me because I like this place very much," said Premkumar Rajendrakumar, lead cook and supervisor of Midway's dining facility.

Like the other Sri Lankans, Filipinos and Thais who sign one-year contracts to work here, Rajendrakumar left behind a family and friends for a

chance to make more money.

"Since I came here, I have improved myself a lot," said Rajendrakumar, 31, who plans to return his wife and 5½-year-old daughter in Sri Lanka next October, after four years on Midway.

Rajendrakumar said he earns \$500 a month here, compared to the \$175 he would get back home. And Midway's cost of living is so cheap that he manages to send \$125 home every month and saves most of the rest.

Likewise, 1st Cook Dionisio Gonzales left a wife and two sons, ages 10

and 6, back in Manila to make money on Midway.

He's only been here three months, he said, not long enough to decide whether he likes it or wants to sign on for another year.

A day before Midway's closing ceremony, Fire and Security Chief Mike Leavy said he still couldn't believe the facility was shutting down.

The retired Brooklyn, N.Y., firefighter was 7 years old when the United States won the Battle of Midway in 1942 and said he's admired the island's history all his life.



Rajendrakumar



Leavy

MIDWAY: Changes in attitude toward wildlife make atoll heavenly for animals

FROM A-1

hands shoo birds from work sites and heavy truck traffic.

"In the '50s and '60s, they were actually slaughtering the albatross by the thousands up there," said John Naughton, a biologist with the National Marine Fisheries Service. "It's just amazing, the change in attitude."

The shifting laws, values and attitudes that have caused some to embrace wildlife conservation spell a major transformation for the remote Pacific atoll, bringing a new landlord and a destiny that hinges on the success of ecotourism.

▲▲▲

"You may not look like it, or feel like it, but you're all guinea pigs," Mike Gautreaux told a handful of tourists during a recent orientation meeting that is mandatory for all Midway visitors.

As island general manager of Georgia-based Midway Phoenix Corp., it is Gautreaux's job to iron out the operational kinks before tourism begins in earnest at the end of June. That's when the firm can increase its visitor count from 30 to 100 people per day.

Midway Phoenix has been bringing in tourists for the past five months at the behest of the U.S. Fish and Wildlife Service, which assumed ownership of the atoll last Halloween. The service had run a refuge there since 1988, but its mission was always secondary to the military, which has controlled Midway since 1903.

getting the people to work well together."

▲▲▲

Midway Atoll, born 25 million years ago from the same volcanic hot spot in the Pacific plate that created the other Hawaiian islands, has eroded over the years into three sandy coral islands encircled by a protective reef.

With its vast flocks of seabirds, abundant marine life, colorful military history and spectacular beaches and lagoon, it seems an ideal setting for the marriage of conservation and tourism.

Still, it is a long way from anywhere, and that makes for an expensive journey. "People have to really want to come here, but they are coming," Gautreaux said, noting that "99 percent of the visitors are happy and a few expect more. Maybe they come here expecting a luxury resort, although we never present it that way. This is not Waikiki, this is not Disney World and it is never going to be."

Many people know Midway primarily for its decisive World War II battles, and veterans previously stationed at the atoll were among some of the earliest visitors. "I'm

very pleased it's opened up because of the World War II vets," said Lt. Bill Shoemaker, officer-in-charge of the base. "They are the ones who made this island great. It had such a tremendous impact on their lives."

Gautreaux said Midway Phoenix plans to retain the military ambiance of the atoll, a move that Fish and Wildlife supports. "To be different, we kind of have to keep Midway the way it is," Niethammer said. "We need to present the whole package. That's what really sells Midway."

Niethammer said that's become an important consideration on Midway. Visitors are needed to help Midway Phoenix recoup its investment in such big-ticket items as sewage and communications systems, a trash incinerator and major building renovations.

"That is the wild card here, how long Midway Phoenix can hold on," Niethammer said. "We're all hopeful it's going to work, and I think it will."

Other government agencies and the island's ecotourism operator said they intend to ensure that conservation prevails as well. "It has to," said Naughton of the National Marine Fisheries Services.

"We're not worried about the economic end of things, just protecting the (wildlife) habitat and resources up there. We're not gonna compromise that."

Barbara Bilgre of Oceanic Society Expeditions, which offers ecotourist excursions to Midway, said her firm also will be watching to see that the needs of wildlife aren't sacrificed to the tourist experience.

"We don't want to see it changed. We don't want to see increased tourism because it could change the refuge. But the good thing is that everyone involved gets to have their say in the future of Midway," Bilgre said.

Gautreaux said Midway Phoenix expects to recoup its investment in Midway, and believes it can do so without undermining conservation goals.

"It's a tradeoff between what's good for the wildlife and what the people want to see, but the focus has to be on the wildlife. It's the most significant thing about this island."

Gautreaux said his firm's agreement with Fish and Wildlife is "a very good plan, but it requires constant adjustment. We talk a lot and there's a lot of give and take, a

lot of compromise. But there's no conflict, not yet."

Fish and Wildlife already has made concessions, such as permitting a beach-front restaurant and pavilion and a citrus orchard to provide fresh fruit for guests. It's also deciding whether visitors will be allowed to keep the fish they catch, collect lobsters and glass floats or engage in other activities that go beyond the ecotourism maxim of "leave only footprints, take only pictures."

Many such pastimes are now allowed under the Navy code, which will remain in effect until the military pulls out. Meanwhile, Fish and Wildlife attorneys are trying to decide whether the atoll, a government possession, should be governed by a new code or state of Hawaii laws.

"It's going to be a balancing act," Niethammer said, but he's hopeful Midway will emerge from the experiment as a model proving that "people can use and live with the resources, but also protect them."

Naughton concurred. "All of us are in agreement that ecotourism can work, it's just a matter of managing the people once they get up there. There's nothing that can't be worked out."

Now that the service is running the show on Midway, said refuge manager Kenneth Niethammer, it can expand its wildlife conservation activities and efforts to educate people about the value of the Northern Hawaiian Islands refuge system. "Midway gives them a window into that world."

It's a remote and beautiful world of coral sands and turquoise lagoons, inhabited by millions of albatrosses, boobies, frigates, noddies, terns, petrels and migrating shorebirds, along with endangered Hawaiian monk seals, sea turtles, dolphins and fish. And it's reached only by boat or a four-hour plane ride from Kauai.

But the inaccessibility that serves breeding and resting wildlife so well poses major financial and logistical problems for humans. The service, although gaining ownership of a harbor, runways and buildings on Midway, was given no additional funding to support such facilities. So it turned to the private sector in hopes of drumming up the money to keep the refuge going.

The relationship between Midway Phoenix Corp. and the service has taken both into uncharted territory. The partnership is a first for the service, which is eyeing similar arrangements elsewhere in its cash-strapped agency. And Midway Phoenix, with extensive military transportation contracts, is new to the visitor industry.

Both sides say the experiment is working well. "The biggest challenge for all of us is keeping communication lines open and active because so many people are involved in any one decision," said Niethammer, who has found himself negotiating with the Navy and its contractors, Midway Phoenix and its three subcontractors and a host of government agencies.

"Every year we will re-evaluate what's going on, look at whether restrictions need to be tightened or loosened," Niethammer said. "It's kind of a living agreement."

For Midway Phoenix, the struggle has been creating a management structure and figuring out how to supply the atoll with provisions months in advance. "Logistics is going to be the key to this thing," Gautreaux said. "That, and

residents and those rescued

"It's a nice place to work," said Leavy, who leads a dozen firefighters and also is the island's only policeman. There hasn't been a major fire there in years, and crime is all but nonexistent, he said.



Falls

When sailors in the middle of the North Pacific need emergency medical care, they head for Midway, where Coast Guard

"It's like Mayberry."

Harbor Master Jerry Falls, a retired Navy submariner, also enjoys working here, but worries that the shut-down means the loss of the island's crucial medical evacuation role.

planes pick them up for transport to hospitals on Oahu.

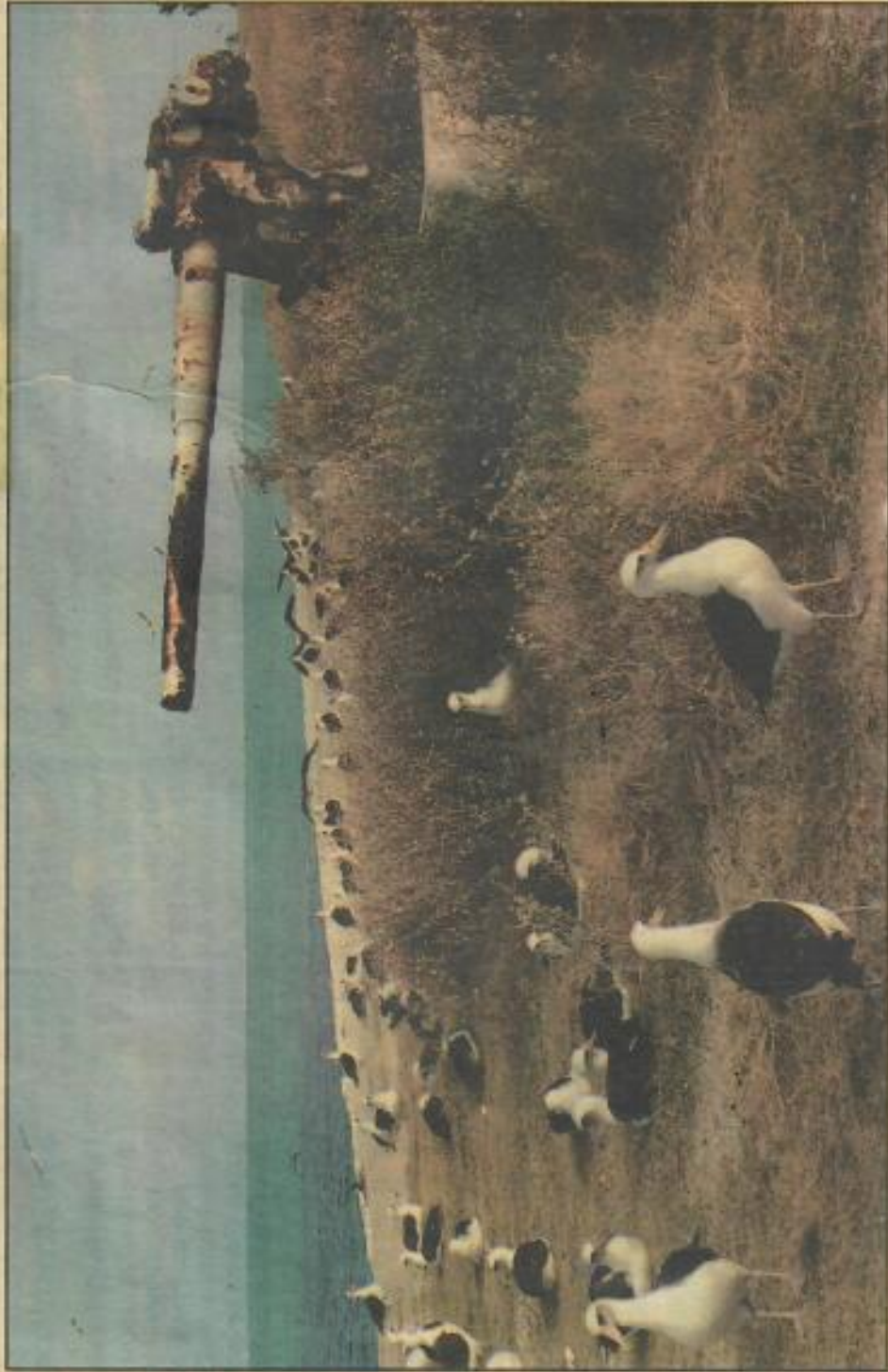
As many as 33 evacuations are performed each year, with one of Falls' two tugs rescuing sailors aboard everything from large cargo ships and small fishing vessels to submarines, he said.

Midway will still support medical emergency flights on a case-by-case basis, but will no longer be staffed as a ready medical evacuation airfield, a Navy spokeswoman said.

But many residents, such as Yeoman Sr. Chief Peggy Clay Williams, said what they'll miss most about Midway is its charm.

"It's a shame really; it's such a beautiful place," she said.

SAT. DEC. 21, 1996 LOS ANGELES TIMES.



Laysan albatross or "gooney birds" mingle at the base of a rusted anti-aircraft gun that stands as a grim reminder of Midway's past.

Half-Century of Isolation Ends as Navy Turns Over Midway Atoll to Anglers, Divers and Tourists

MIDWAY ISLANDS—There were the giant trevallies, huge fish rising like black rocks from the cavernous depths, falling in line behind the boat, enticed by bits of tuna tossed their way by the captain.

Charlie Sturve had counted on this.

But then there was the giant tiger shark, charging up out of the blue like a demon from hell, apparently intent on sinking its teeth into something substantial.

Sturve hadn't figured on this. "Geez!!"



Advertiser photo by Bruce Asato

The American flag, which flew at the hangar of Midway's airfield, lies folded on top of the text of Capt. Timothy Rocklein's speech marking the operational closure of the Navy's facility at Midway. The flag was presented to Rocklein by the officer in charge of Midway, Lt. Cmdr. Michael Driggers.



Advertiser photo by Bruce Asato

An aerial view of Midway Island, with Eastern Island in the background.

operating base from which we in the U.S. Navy conducted important surveillance, much of it still highly classified, against the Soviet Union," he said.

During that time, the island flourished with a population of Navy personnel and dependents in the thousands. It had its own theater, bowling alley and TV station, as well as a school.

But since November 1978, when the last dependents left, Midway has been mostly a ghost town.

The school is abandoned, the

chipped and faded. Red letters on a wall warn that it is "Abandoned; Off limits."

Midway's symbol — Laysan and black-footed albatrosses or "gooney birds" — have taken over, leaving mounds of molted feathers in the classrooms and a carpet of droppings on the sidewalks.

Midway's future

Once the Navy completes its cleanup, Refuge Manager McDermond hopes Midway will go to the Fish and Wildlife Service to become a permanent

"Just about every submarine in the Pacific would rearm and refuel at Midway."

— John Kolb
Navy veteran

birds that breed here.

A National Wildlife Refuge since 1988, Midway supports the world's largest Laysan albatross nesting colony with about 1 million birds, McDermond said. Furthermore, other animals threatened with extinction — including green sea turtles and monk seals — regularly feed here.



McDermond

his staff to deter fishing boats and trespassers. A similar facility is already on French Frigate Shoals.

"Now, the real work is going

The island would not be entirely devoid of humans because McDermond envisions a small living compound for

The ISLAND THAT TIME FORGOT

he bellowed, leaping back, trying to distance himself from the jaws of the attacker, which alid up onto the boat's transom, shaking its head and snapping at air, looking through blank, black eyes.

The shark eventually slipped back down and out of sight — momentarily. It resurfaced and mounted another quick, boat-jolting attack.

"I have never . . . in my life, seen a shark act like that!" the veteran skipper exclaimed.

But then, Stuve, 39, hired to help run the newly established sportfishing fleet here, had never been to Midway, where everything seems larger than life.

"Everything that's out here has been big," he said, after things had calmed down. "Everything I've seen has been bigger than anywhere else, the marlin, the trevallies. . . . I think because it's not picked over like other places."

Picked over? Midway's waters have hardly been fished. Commercial fishermen, with their

Please see MIDWAY, C10



Mark Thompson (right), is president of Phoenix Air Group, which has a controlling interest in Midway, whose waters teem with sharks.



Panel wants drug felons shipped off to Pacific

By Michael Isikoff
Washington Post Service

WASHINGTON — Return to Alcatraz? How about Devil's Island?

That may not be precisely what the House Armed Services Committee has in mind. But tucked away in the panel's report on this year's defense authorization bill is an unusual, if not altogether novel, idea for dealing with the prison overcrowding problem: Ship drug criminals off to "extremely remote Pacific islands."

The two islands that the committee has in mind are well known to Americans with a sense of history — Midway and Wake islands.

Midway, a 1-by-1.5-mile island, 1,150 miles northwest of Hawaii, was the site of one of the decisive U.S. naval victories during World War II.

Wake, a three-square-mile atoll 2,300 miles west of Hawaii, was where President Harry S. Truman conferred with Gen. Douglas MacArthur during the height of the Korean War.

Since then, the tiny U.S. possessions have slipped back to obscurity, used by the Defense Department for emergency airfields and communications stations.

But given the "shortage of available space for convicted drug offenders," the congressional committee proposes turning the islands into drug prisons where inmates could be put to work.

"The convicted drug offenders could be required to accomplish the duties that contractors now perform," the committee said in its report on the \$283 billion defense bill, which was approved by the House this week. The report requests Defense Secretary Richard Cheney to study the plan and report back by next March.

The idea is the brainchild of committee member Rep. Richard Ray, D-Ga., who insists



U.S. Navy photo

An aerial view of Midway Island.

that sending drug criminals to faraway islands makes more sense than simply building more federal prisons.

As Ray envisions it, the Pacific islands would be reserved for volunteers only; convicts who signed up to go would be promised a one-third reduction in their sentences.

"There's not much chance they're going to get anything but rehabilitated on two small islands like these," said Ray. "You can't go anywhere. . . . You won't be interrupted by families coming to visit every weekend."

Ray, who thought up the idea after visiting Midway and Wake during committee trips, said he recently outlined it to a group of local sheriffs, and to police chiefs in his district. "I got a standing ovation," he said. "They thought it was a great idea."

A Pentagon spokesman declined to comment.

But some law enforcement experts acknowledged that Ray was indisputably correct on at least one point: The islands are

isolated enough to deter any thoughts of escape. Neither has any native inhabitants.

Midway, for example, is home to 12 U.S. military officers, 210 contractors, most of them Asians, and an estimated 1.5 million fowl — led by the gooney birds, albatrosses best known for parking themselves in large numbers along the main runway that runs the entire length of the island.

But Eric Sterling, president of the Criminal Justice Policy Foundation, called the idea "a giant step backward" — a return to the days when the British shipped their hardened criminals off to Australia or the French sent their convicts to Devil's Island off the coast of South America.

Leaving aside the likely exorbitant cost of flying prisoners and supplies back and forth, Sterling said the proposal reflects the all-too-common tendency to see drug criminals as "subhuman."

"This is astonishing," he said. "It takes penology back two centuries."

MIDWAY

Continued from C1
devastating nets, have not been here, and even anglers fishing with hook and line have, until recently, been almost nonexistent. As a result, the fish are larger and more plentiful, not as wary as they might otherwise be.

Midway's sandy, shrubby shores turn into a virtual sea of albatross from October through June. The sea birds, also having been spared the pressures of civilization, show little fear of man.

"Basically they've been kept away from the abuses of man so they don't really have any fear of us, which unfortunately makes them very vulnerable," said Nick Palaia, a biological science technician for the U.S. Fish and Wildlife Service.

They were certainly vulnerable that fateful morning of June 4, 1942, when the Japanese bombarded Midway during an ill-fated attempt to occupy the atoll, which led to the two-day Battle of Midway, one of the fiercest of World War II. It resulted in the first decisive naval victory for the United States and crippled Japan's naval air power.

But that is history. And now, after more than half a century, so is Midway's isolation.

Midway is going public. The atoll, made up of Sand and Eastern islands at the northern end of the Hawaiian Islands chain, is 1,300 miles northwest of Honolulu and halfway between the mainland and Japan. Its importance from a military standpoint has diminished. The Navy is pulling out.

The exodus, which began as part of the U.S. Department of Defense base realignment and closure process in 1993, isn't expected to be completed until June, but "jurisdiction and control" already has been transferred to the U.S. Fish and Wildlife Service. The service, through a partnership with the Phoenix Air Group of Cartersville, Ga., has since late August been allowing limited numbers of tourists to what is now Midway Atoll National Wildlife Refuge.





That same year, the first contingent of the Commercial Pacific Cable Company arrived, the final segment of cable was laid, and on July 4, 1903, the first around-the-world cable was sent via Midway by Roosevelt.

In 1935, Pan Am World Airways set up an air base for its Trans-Pacific Clipper Seaplane service between the mainland and Far East. A hotel was built on Sand Island. In 1941, things began heating up in the Pacific and the U.S. Naval Air Station Midway was commissioned.

What happened after that is in fourth-grade history books—and the memories of those who recall the war in the Pacific.

What happens from now on is anyone's guess.

On the recent fishing trip, Stuve told of marlin averaging 500-850 pounds that were caught just outside the lagoon in the first weeks of operation.

"We've only had one peewee, a 150-pounder," he said, adding that the offshore fishery probably will turn out to be a seasonal one, as the winds blow hard and steady for days on end during winter months, when the water temperature drops below 70 and the air into the low 60s.

Today, finally, Midway is beginning to generate memories of a happier sort, even if this is not an ideal situation for the U.S. Fish and Wildlife Service.

If agency biologists had their way, the two-square-mile atoll, what's left of an ancient volcano, would be inhabited only by the birds and the beasts, including endangered Hawaiian monk seals.

But tourists are being allowed because, without them, the service would have to abandon Midway. The financially strapped agency cannot afford, on its own, to maintain the airport facility necessary to man and supply one of the most remote places on earth.

So, the agency two years ago published a request for proposals from the private sector for a partner that "would provide operations and logistic support as well as a public-use program that would allow the co-operator to recoup some of its costs."

Phoenix Air Group, a major defense aviation contractor specializing in electronic warfare training, responded and eventually a deal was struck: The newly created Midway Phoenix Corp. would assume the cost of maintaining and operating the airfield and the island in return for profits realized through tourism.

Because only 30 visitors at a time are being allowed until the Navy

outboard-powered casamarans.

Midway Dive-N-Snorkel is in business, with a 45-foot custom dive boat, and divers can explore the vast lagoon not only for fish but for shipwrecks and airplanes.

"We've got a bottle of champagne just waiting for the day we find our first fighter plane," said Michael Jackson, 39, partner of dive master Larry Millwood.

Oceanic Society Expeditions of San Francisco was called upon to lead natural history and ecology tours, and to conduct research projects with the help of paying tourists who, according to naturalist Barbara Bilgre, "really get a kick out of it because they get to be involved in actual research."

Other than that, Midway is not expected to experience dramatic changes. There will be no high-rises, no swimming pools. The historic buildings still standing will remain standing. The bowling alley, tennis courts and gymnasium used by the military will remain operational.

"We want to keep Midway the way it is," Thompson said. "If you were a writer and you wanted to go on a sabbatical to write the great American novel, this would be an excellent place to do it."

□

A trip to Midway begins on a Kauai runway for an afternoon flight aboard a 19-seat, turbo-prop

Breakfast can be had in the mess hall, where customers dine with the remaining sailors and cleanup crews. Afterward, guests attend an orientation meeting at the main hangar, where they are told about the birds they will encounter. They are asked to tread carefully.

Those who have nothing scheduled spend the morning exploring, alone or with a naturalist whose first order of business is to shed a little light on Midway's most prominent citizen, the gooney bird.

The atoll is the seasonal home to the world's largest colony of Laysan albatross—about 430,000 nesting pairs, or 70% of the world's population—and the second-largest colony of black-footed albatross. The Japanese didn't call this place *Otori Shima*, or Big Bird Island, for nothing.

Young albatross spend seven to nine years at sea, soaring gracefully in the air currents, foraging for squid and fish. When they are mature enough, they return to find a mate on Midway, their home for the next seven months.

And Midway wouldn't be the same without them.

Used to gliding to a halt on water, the birds—with six- to eight-foot wingspans—hit the beaches, fields and runways with a thud, often tumbling to a stop. They seem to lose their bearings over land, perhaps because they

Suddenly, up from the same waters that swallowed crippled aircraft carriers and burning fighter planes—and claimed thousands of lives—are coming giant blue marlin, trevallies and jacks that have never felt the sting of an angler's hook.

Those so inclined can plunge wide-eyed—really wide-eyed after hearing stories such as Stuve's—into a magnificent lagoon teeming with dolphins, turtles and oversized lobsters.

Suddenly, hundreds of thousands of albatross, engaged in the biggest, loudest, funniest gooney bird festival on earth, are on display for anyone with the means to get here.

So are bombed-out buildings, rusted antiaircraft guns, seaplane hangars and other war reminders for those who might want to step back in time and put themselves in the combat boots of those who were on duty here when Midway was set afire by Japanese planes.

Harry Stuart, 78, of Orlando, Fla., was among the few thousand stationed here then. He returned recently to reminisce, "because the battle was the highlight of my time here," and to show his son where he almost bought the farm while answering a call of nature.

"I . . . was outside my dugout, finishing my errand, when I looked up and actually saw the first [enemy] aircraft get hit and peel off in flames," he said.

"I stood there fascinated by what was going on until I realized that the planes were very nearly overhead, and when I realized it I said, 'Man, this is not a good time for me to be out here.' I started to the dugout and just before I got there a 500-pound bomb dropped near me and knocked me [head over heels], and then I got under cover."



Los Angeles Times

Cyclists on Midway can't help but be constantly aware of the gooney birds (top); fishing guide and captain Charlie Stuve gives wife Cindy a hand in landing a trevally, above, and biologist Glynnis Nakai, right, tells visitors about the wartime bombing of the island's communications center.

and environmental cleanup crews leave in June, and because only 100 at a time will be allowed thereafter, profits figure to be paltry, compared to the cost of running the islands.

Mark Thompson, 45, president of Phoenix Air, said Phoenix Air board members advised against the venture but he overruled them, citing a desire to keep open an airfield his company—which also owns one of the world's largest fleets of Lear jets—has long used as a refueling stop on flights between Anchorage or Hawaii and the Far East.

"I am the president," Thompson said. "Besides, I've always done things nobody else was willing to do, and I've done all right."

And so the nonmilitary buildup has begun. Thompson immediately spent \$500,000 on a cellular phone system. Military barracks are being remodeled to accommodate tourists. Thompson is building a waterfront restaurant and flying in a chef from Belgium.

Midway Sportfishing has been established, with renowned skippers—Charlie Stuve being one of them—recruited to run a fleet of top-of-the-line cruisers and custom-built, 22-foot,

Gulfstream. Four hours later, the plane lands in the darkness on Sand Island, the only one still inhabited.

Strange sounds fill the night air, albatross wailing in a high-pitched cacophony so overwhelming that Alfred Hitchcock's "The Birds" immediately comes to mind. The scene outside the hangar is as surreal as any in that movie. The birds, similar in appearance to but twice as large as sea gulls, have settled for the night, covering nearly every square foot of ground.

Guests are driven slowly by van to their quarters, where they are given bicycles with which to get around.

Some, after unpacking, take a walk among the gooney birds, which don't budge. If you get too close, they cock their heads and look at you funny.

Others in the group peddle down paved streets to the only night life, the All Hands Club, a Navy pub where, at least for as long as the Navy is here, drinks are served at surprisingly low prices—50 cents for a domestic brew, 80 cents for a cocktail. Pizza and burgers are served as well.



are trying to spot their mates among a million other gooney birds. Bike riders often have to duck to avoid being picked off by landing gooneys.

Once on the ground, albatross have only one thing in mind, the result of which is an egg so big it looks as though it belongs in a "Flintstones" cartoon and, eventually, a gooney bird chick that stumbles around until it is strong enough to fly. Some make it off the islands, others flounder in the lagoon and are gobbled up by tiger sharks.

□

In all, more than two million birds—from great frigates to red-footed boobies to burrowing Bonin petrels to wedge-tailed shearwaters—visit Midway in the course of a year.

Fluffy white terns flutter about in pairs or threes, sometimes flying right up to the faces of guests as they walk or ride. One such bird, named Spot, is the island pet. An orphan raised by workers, Spot will land on your hand or even your head. Then he'll look at you with his beady black eyes and bend your ear for hours, if you have the time.

Midway, however, was making history long before World War II. The frame of the building that housed employees of the Commercial Pacific Cable Company just after the turn of the century still stands, in remarkably good shape, as evidence of that.

And ships have been running aground on the shallow, circular reef protecting the islands since ships have been sailing the Pacific.

The Midway Mirror, a twice-a-year newsletter published by survivors of the United States Marine Corps' Sixth Defense Battalion, researched shipwrecks for one issue and provided details of intriguing events that followed the wreck of a ship 110 years ago.

"The General Siegel, with Captain Jacobsen in charge, was wrecked at Midway during a storm on Nov. 16, 1886. Immediately, many weird things began to happen. First, one of the sailors, named Latkin, had his hand blown off while fishing with dynamite, and a few days later died complaining of great pain in his stomach.

Inside the lagoon, the oval giant trevallies, or GTs, generate the most excitement among the angling crowd. Like everything else, they are bigger and bolder than trevallies, or *uhua*, farther down the chain in Hawaii proper.

"There aren't divers down there spearing them and there are no people throwing hooks after them," reasoned Frank Parrish, a Honolulu biologist with the National Marine Fisheries Service. "So this whole system is pretty much, if not pristine, relatively unexploited. And as a result, these high-level predators have not been gleaned or made wary of man, so they swim right up to people."

They certainly swam right up to Stuve's boat, enticed by chunks of tuna caught on a previous trip. This is a catch-and-release fishery, but offshore species, such as tuna and wahoo, are allowed for consumption on the island, and possible world records can be killed for verification.

A line-class world-record GT was caught earlier this fall—a 105-pounder on 30-pound-test monofilament—and Stuve said he has seen much larger fish. But so far, he has not been able to catch any of those because of their tremendous strength and an uncanny ability to make it back to the safety of the sharp, coral reef.

"Every now and then you get one to turn offshore and you've got 'im," Stuve said.

Cindy Stuve, Charlie's wife, was hoping to get one but was having no luck. She started with eight-pound-test and, as each fish broke her line she went to heavier equipment. Finally, she grabbed the stoutest rod with a reel spooled with 130-pound-test, strapped a harness around her waist, clipped the harness to her reel, buttoned down the drag as tight as it would go, flipped a chunk of tuna and waited for a taker.

One hit immediately, a 60-pound GT that sped down toward the reef, only to be stopped cold about 10 feet short. She began pumping and reeling, thinking she had the upper hand, when suddenly there was a tug on the line so sharp she was pulled off balance.

"To me, this is better than the Galapagos," said Cherry Harrison, a tourist from Maui, visiting with her husband, Joe. "Because here you have the freedom to roam around. At the Galapagos, you can't go anywhere without an escort."

While roaming, it is easy to imagine being here during World War II. Many of the buildings are still in place, some with significant damage. Midway was first shelled on the night of Dec. 7, 1941, by Japanese destroyers returning from the attack on Pearl Harbor.

One shell penetrated an air duct of an otherwise "bomb-proof" command post on Sand Island, mortally injuring 1st Lt. George H. Cannon, who remained conscious long enough to get the post back in operation. Cannon was the first marine in World War II given the Medal of Honor. He was one of four killed that night.

Six months later, during the Battle of Midway, Japanese ships attempting to seize Midway as a base from which to again strike Hawaii, were caught off guard by U.S. forces, which knew of the impending attack after breaking the Japanese code. The Japanese lost four aircraft carriers, a heavy cruiser, 253 planes and 3,500 lives, and never regained the offensive. The United States lost one carrier, a destroyer, 150 planes and 307 lives.

"Another sailor, named Brown, and Captain Jacobsen went over to Eastern Island, but the captain returned to Sand Island alone, stating that Brown had accidentally killed himself. Jorgensen, another sailor, then went with the captain and a German boy to Eastern Island, and the captain showed them where he had buried Brown. The captain stood by indifferently while they dug up Brown's body—and found a bullet hole in the back of his head!"

"Several days later, the captain and Jorgensen went again to Eastern Island, and Jorgensen returned alone to Sand Island, saying the captain had disappeared. The captain was never seen again. Jorgensen's shipmates outfitted a boat which had drifted from the wreck of the *Dunnottar Castle* on Kure or Ocean Island, 60 miles northwest of Midway, and sailed for the Marshall Islands, leaving Jorgensen marooned and alone on Midway. They had accused him of killing the captain and were afraid to take him with them."

Midway was discovered in 1859 by Nick Brooks of the Hawaiian ship, *Gambia*. Brooks named the atoll Middlebrooks Islands and when the United States annexed the atoll in 1867 it became known simply as Midway.

In 1903, because of recurring complaints of squatters and poachers—mostly Japanese after albatross for plumage—President Theodore Roosevelt put Midway under the jurisdiction of the Navy.

A large shark had dashed out from the reef and sunk its teeth into the trevally, twisting and tearing at the fish with such ferocity it nearly yanked Cindy Stuve overboard. She braced herself against the rail and cried out for help, but Charlie just stood there, staring down in amazement at the cloud of blood and bubbles below.

Suddenly, Cindy fell back. The shark had bitten through the fish, missing the hook. She reeled in what was left of the trevally, and then let her husband have it.

"I felt like I was down there with that fish, being chased," she complained. "I was starting to question your love for me, Charlie."

He shrugged, tossed the trevally overboard and resumed his chumming, when up charged the 15-foot tiger that nearly startled him out of his shoes.

The next day, on the dive boat with a group of snorkelers, dive master Millwood was saying that although he hadn't even "cracked the tip of the iceberg" in terms of exploring the huge lagoon, he has great expectations, even considering the abundance of sharks. He said they had yet to bother him or any of his customers.

But when he stopped at one of his favorite spots, about 200 yards off the beach, and someone remarked that this was about where Stuve said he had been fishing the day before, nobody felt much like jumping in.

KORAL KINGS DIVING



CLUB OF MIDWAY

BY-LAWS

14 December 1977

From: President, Koral Kings Diving Club of Midway Island
To: Members of Koral Kings Diving Club of Midway Island
Via: Commanding Officer, U.S. Naval Air Facility, Midway Island
Subj: Koral Kings Diving Club of Midway, Constitution and By-Laws

Encl: (1) Koral Kings Diving Club's Constitution
(2) Koral Kings Diving Club's By-Laws

1. The Koral Kings Diving Club, Constitution and By-Laws, as contained in enclosures (1) and (2) are forwarded for approval and subsequent compliance. Additions, revocations and/or amendments to effective articles and rules will be in accordance with procedures prescribed for in enclosure (2)

2. The purpose and objectives of the Koral Kings Constitution and By-Laws are to provide guidelines to club members, thereby assisting them in fulfilling their responsibilities to the club, and familiarizing them with authorized privileges available within the club.

3. Upon becoming effective, enclosures (1) and (2) shall supersede all Koral Kings previous Constitutions and By-Laws.

S.K. Gilliam

S.K. Gilliam

FIRST ENDORSEMENT

From: Commanding Officer, U.S. Naval Air Facility, Midway Island
To: Members of Koral Kings Diving Club of Midway Island

1. Returned, approved.

H.F. Kuhneman

H.F. Kuhneman

AMENDMENT TO ARTICLE II

Persons not members of Koral Kings may dive on Highway Island provided they meet the following requirements:

1. Be checked out by the Safety Officer of Koral Kings to ensure that they understand the rules and regulations that a diver must adhere to while diving.
2. They must meet all the requirements that a member of the club is required to meet prior to diving.

When 1 and 2 above are met, the Safety Officer of Koral Kings will submit a chit for the prospective diver to the Commanding Officer for approval stating that the requirements have been met. When the chit is returned approved, the diver may start diving.

A non-member may get air fills from the Koral Kings dive shop for a minimal fee. He may not use club facilities or be given entry approval into the club except when accompanied by a club member. He may make purchases in the club dive shop for a slightly higher fee than a member would pay. Any non-member of Koral Kings may feel free to seek assistance from the club on any matter. Koral Kings welcomes all diving on the Island whether it be by members of the club or not.

LIBRARY OF
GEORGE H. BALAZS

FILE - KLEE, G.A.

World Systems of Traditional Resource Management

Edited by Gary A. Klee



At a time when the world is moving into an age of resource scarcity, the need for wise dependence on renewable resources becomes all too apparent. The ways in which cultures have traditionally practised conservation is thus clearly an important subject, made more so as many cultures are threatened by the influx of other methods and values.

Professor Klee introduces the need to explore and evaluate the traditional ways of resource management. There follow nine chapters, prepared by specialists, that describe the resource base and the systems of resource conservation particular to major regions of the world. The implications of transition as a result of outside pressures are examined and each chapter concludes with an assessment as to the present performance of each region in terms of its conservation practices and what improvements might be brought. Professor Klee finally draws together the general principles regarding scale, traditional land use planning, and strategies to make the systems reliable and productive.

The great virtue of this book is the clear and full analysis it presents of a subject on which, up until now, only fragmented comments have been available. Although the information it provides will primarily concern those involved in resource and conservation geography, the book will also be of the greatest interest to anyone involved in work on the environment and its preservation.

26 black-and-white photographs
39 line diagrams
37 tables

Jacket photograph: Using the traditional system of lever and counterbalance, villagers of the area near Tanjore, India raise water from a lake into irrigation channels to serve their fields. *United Nations.*

Edward Arnold

For Helen and Laura

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Contents

| | | |
|------------|---|------|
| | Contributors | vi |
| | Preface | viii |
| Chapter 1 | Introduction <i>Gary A. Klee</i> | 1 |
| Chapter 2 | Africa <i>Jacquelyn L. Beyer</i> | 5 |
| Chapter 3 | The Middle East <i>Ian R. Manners</i> | 39 |
| Chapter 4 | South Asia <i>Brian J. Murton</i> | 67 |
| Chapter 5 | East Asia <i>Joseph Whitney</i> | 101 |
| Chapter 6 | The Soviet Union <i>W. A. Douglas Jackson</i> | 131 |
| Chapter 7 | Europe <i>Warren A. Johnson</i> | 165 |
| Chapter 8 | North America <i>Ned H. Greenwood</i> | 189 |
| Chapter 9 | Latin America <i>William M. Denevan</i> | 217 |
| Chapter 10 | Oceania <i>Gary A. Klee</i> | 245 |
| Chapter 11 | Traditional Wisdom and the Modern Resource Manager <i>Gary A. Klee</i> | 283 |
| | Index | 287 |

Preface

Two reasons are behind the decision to write and edit this book. First, I became convinced that environmentally concerned students and particularly those bound for resource management positions must have an appreciation and at least an introduction to traditional non-Western means of managing resources. More often than not, the American student graduates from a program (whether it be in natural resources, biology, environmental sciences, environmental studies, or geography) with the misconception that the "U.S. way is the only way." Since many Western trained environmentalists and resource managers end up advising and sometimes even managing resources of other lands and cultures, much damage could be avoided if they understood the cultural ecological foundations behind non-Western systems of resource management.

Secondly, I simply have not been able to find a textbook that could serve as a good foundation for such discussion in my course in human ecology. Although one can gather from the literature various fragmented comments about traditional systems of resource management, no text has attempted to synthesize this information cross-culturally into one volume. Since I could only offer my knowledge of Oceania, other regional specialists were recruited from the ranks of America's cultural geographers to lend their expertise to the subject.

The book is intended primarily for undergraduate students in geography. Classes in *Resource Geography*, *Conservation Geography*, or *Cultural Geography* will find it particularly useful. Geographers or environmental scientists who teach *Human Ecology*, anthropologists who may teach *Cultural Ecology*, and historical geographers are bound to find this text of interest.

Except for Chapters 1 and 11, the book is organized to cover resource management traditions in each of the major regions of the world. Several regional chapters focus fairly exclusively on agricultural resources, while other, notably that on Europe, chose

to illustrate the topic by concentrating on one typical country. Chapter 1 briefly introduces the reader to the need for exploring and evaluating traditional forms of resource management, while the concluding Chapter 11 attempts to draw together some general principles regarding scale, traditional land use planning and decision making, strategies to make systems reliable, perpetual, and productive, as well as implications for the Western development planner.

I particularly wish to thank all reviewers who made major contributions and suggested ideas for the respective regional chapters of this text: Profs. Richard Arvidson, Alvin Urquhart, C. Gregory Knight, and Hartmut Walter (*Africa*); John R. Clark, Gerry A. Hale, and Mutwakil Ahmed Amin (*Middle East*); Alan R. Beals and Chuck Yahr (*South Asia*); Elmer A. Keen and Christopher Salter (*East Asia*); Philip Pryde, Ihor Stebelsky, Robert Picker, and Philip P. Micklin (*Soviet Union*); Clyde Patton, Norman J. W. Thrower, Lester Rowntree, and David E. Kromm (*Europe*); Edward T. Price and Daniel B. Luten (*North America*); Carl Johannessen, James J. Parsons, and Charles F. Bennett (*Latin America*); and Michael McIntyre, Tom L. McKnight, Bryan H. Farrell, and Gordon B. Lewthwaite (*Oceania*).

Gary A. Klee



DEPARTMENT OF THE NAVY

U.S. NAVAL AIR FACILITY
FPO SAN FRANCISCO 96814

26 April, 1984

National Marine Fisheries Service
Honolulu laboratory
P.O. Box 3830
Honolulu, Hawaii 96812

Mr. George Balazs:

4-3-84
Enclosed are the slides I took of the sea turtle found at Midway Island in March of 1984. I hope they will be of interest to you. We recieved your letter of April 4, 1984 with the enclosed articles and look forward to your visit.

Sincerely,

Walter P. Gentry
Walter P. Gentry

SEA TURTLE SIGHTING REPORT

2 TURTLES

Observation made by: DOUG MOORE

(Please return to: George H. Balazs,
Hawaii Institute of Marine Biology,
P.O. Box 1346, Kaneohe, HI 96744,
Tel. 247-6631)

Address & Tel. No. (optional): A-023 (BOB WILSON) SCRIPPS INST OCEANOGR.

Date: 22 MAY 80 Time: 18:30 Location (indicate

LA JOLLA, CALIF 9200

on chart): INNER HARBOR, MIDWAY

Observation made from: shore;

boat; or while skin SCUBA diving.

Estimated size (shell length): 1 ft, 1 1/2 ft

Turtle seen on: surface; or at depth of

approx. 5 ft. Distinguishing

characteristics (species I.D. if known, long HAWKS BILLS

tail, shell color, tags, injuries, etc.): NO INJURIES

(Information on turtle parts recovered from fish or sharks would also be greatly appreciated).

R. Wilson, A-023
SCRIPPS INSTITUTION OF OCEANOGRAPHY
UNIVERSITY OF CALIFORNIA, SAN DIEGO
LA JOLLA, CALIFORNIA, USA 92093

Other comments: PLEASE SEND IDENTIFICATION MATERIAL.

BOB WILSON

THANK YOU FOR YOUR COOPERATION

Cut along dotted line

SEA TURTLE CONSERVATION LAWS

All sea turtles, including the green sea turtle or "honu" and the hawksbill turtle or "ea" which are found in Hawaiian waters, are now protected by the Endangered Species Act of 1973. Prior to September 6, 1978, state law in Hawaii allowed for the regulated take of green sea turtles for home consumption purposes. This is no longer the case under the federal law which prohibits the killing, capture or harassment of these marine turtles as well as the taking of their eggs. In addition, the import, export or inter-state sale of the turtles or any product made from them ("tortoise-shell" jewelry, turtle meat, oil, or turtle skin leather), whether "farm raised" or wild caught, is prohibited.

Mounting international concern over the plight of the world's populations has also lead to attempts at world-wide conservation. All sea turtles also now fall under the protection of the "Convention on International Trade in Endangered Species," an international treaty which over 54 nations have endorsed, that further restricts the exploitation of these vanishing creatures.

Violations of these laws should be reported to:

U. S. Fish and Wildlife Service 546-5602

National Marine Fisheries Service 946-2181

24 Dec. 1979

13 Jan 1974

Dear George,

Thank you very much for the turtle patch. You're so busy with your job and see so many people, I found it hard to believe that you would remember me.

I might be going to the Navy diving school in Pearl Harbor this spring. If I get over there I will look you up and maybe I could help you out with some odd jobs in my free time.

I hope you had a Merry Xmas and a Happy New Year. Best of luck to you in the future and may God give you a helping hand when you need it!

Dave

DAVID W. WILSON
MCR -40
CPO SAN FRANCISCO CA
96601

passenger emergency procedures

INSTRUCTIONS IN CASE OF AN EMERGENCY LAND OR WATER LANDING

1. PUT OUT ALL CIGARETTES.
2. ADJUST SEAT TO UPRIGHT POSITION.
3. REMOVE HIGH-HEELED SHOES AND ANY OTHER CUMBERSOME CLOTHING.
4. REMOVE ITEMS SUCH AS GLASSES, FALSE TEETH, PENS, PENCILS WHICH COULD BE INJURIOUS.
5. LOCATE EMERGENCY EXIT NEAREST YOU.
6. IF WATER, PUT ON LIFE VEST. DO NOT INFLATE INSIDE AIRCRAFT.
7. FASTEN SEAT BELT TIGHTLY AND ASSUME BRACED POSITION SHOWN AT RIGHT.
8. AFTER AIRCRAFT HAS MADE CONTACT AND HAS COME TO A COMPLETE STOP YOU MAY UNFASTEN SEATBELT AND PROCEED TO THE NEAREST EXIT.
9. IF WATER, YOUR CREW WILL DIRECT YOU TO THE LIFERAFTS.
IF LAND, PROCEED A SAFE DISTANCE FROM THE AIRCRAFT TO AVOID DANGER OF FIRE OR EXPLOSION.

NOTE: LIFE VEST CONTAINS DYE MARKER, SHARK REPELLENT, WHISTLE, STROBE LIGHT, PEN GUN WITH 7 FLARES, SIGNAL MIRROR, AND 121 MK 13 DAY-NIGHT FLARES.

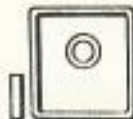


INSTRUCTIONS FOR OPERATION OF EMERGENCY EXITS



PARATROOP DOOR

TO OPEN - TURN HANDLE IN DIRECTION OF ARROW. PULL DOOR IN, THEN LIFT STRAIGHT UP UNTIL IT LOCKS OPEN.



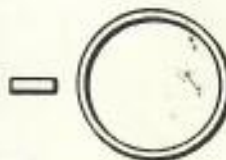
SIDE WINDOW

TO OPEN - PULL HANDLE BESIDE WINDOW. PULL WINDOW INTO AIRCRAFT.



CREW ENTRANCE DOOR

TO OPEN - TURN HANDLE IN DIRECTION OF ARROW, AND PUSH AT TOP.



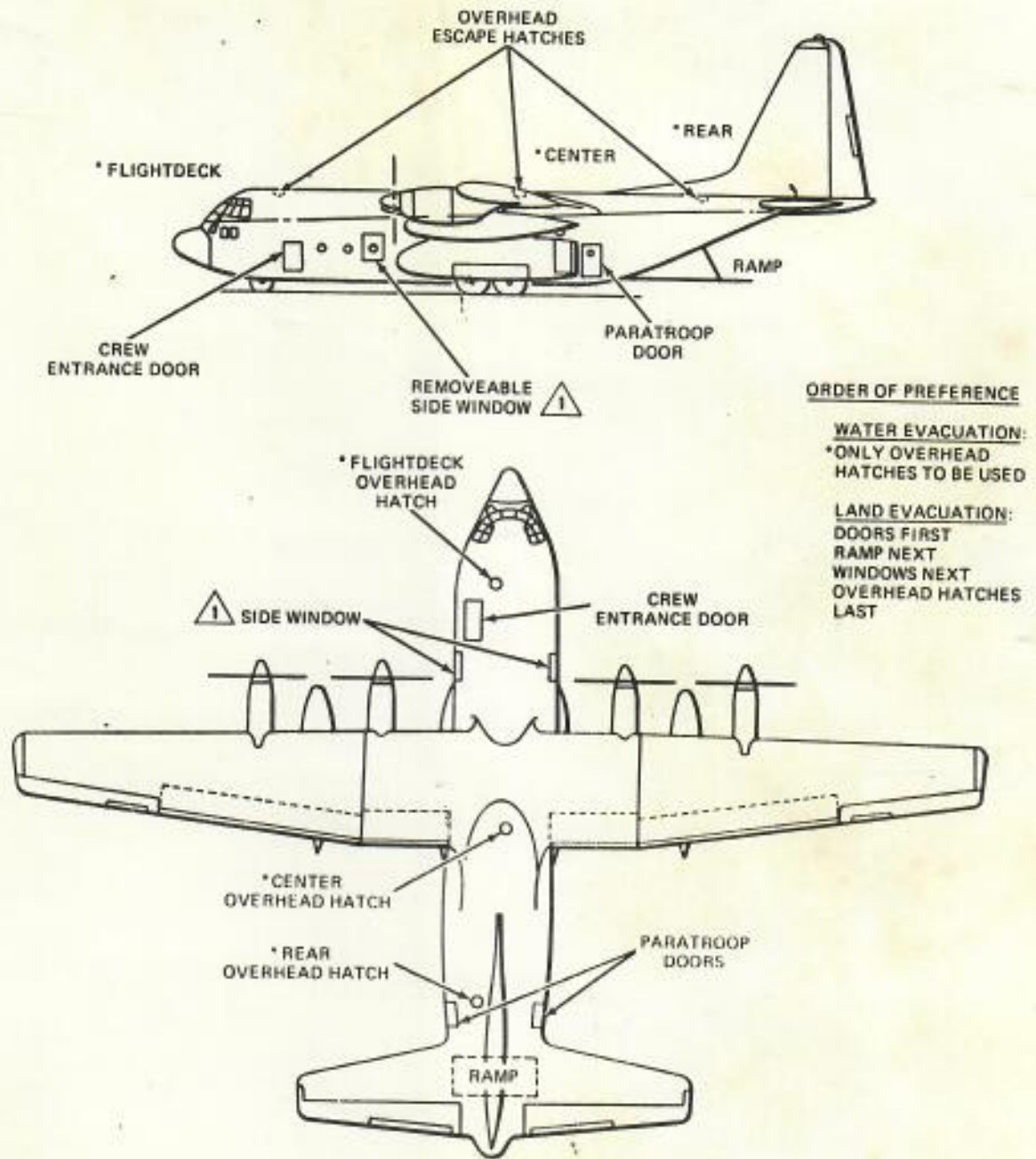
OVERHEAD HATCH

TO OPEN - PULL HANDLE BESIDE HATCH. PULL HATCH INTO AIRCRAFT.

CG1208 1/8 1

Figure 8-1

Exit locations



NOTE
 △ LEFT SIDE WINDOW INSTALLED ON **H** AIRPLANES ONLY.

Figure 8-2

Advanced Class Salvages Anchor!

by Curtis W. Haney, NAUI #L0285, Virginia

LIBRARY OF
GEORGE H. BALAZS

During the years 1974-1977, I was stationed with the U.S. Navy on the Midway Islands. While stationed there I acted as assistant instructor to Ian McFarland, NAUI 3286. Mac, as he is called, taught Basic and Advanced Classes for about five years on the small islands, certifying both civilian and military personnel. All classes were held in open water under controlled conditions.

During an advanced diving class on Midway Island we had as a class project some basic light salvage. Near the completion of the course, we spent a weekend salvaging an old fluke anchor.

The anchor rested on the sandy crushed coral bottom in about forty feet of water. It was located about $\frac{1}{4}$ of a mile from the beach in front of the Coral Kings Diving Clubhouse.

On Saturday morning we divided the class into two teams. We fabricated ten fifty-five gallon oil drums to use as lifting devices. We connected six foot chains to each end of the drums, welding them in place.

Saturday afternoon we transported the drums to the site, towing them behind a boat.

The students split up in their separate teams and ran a compass course to the anchor which was marked by an inertube and a diver down flag.

When both teams arrived at the site, they swam in buddy pairs and took on the job of sinking the drums. After all the drums sank, they placed them on the shank of the anchor and along the upper cross arm and lower end. All together ten drums were used and connected at the designated locations by bolts.

Early the following morning we had the class snorkel out to the site in full scuba gear. When both teams arrived, they were supplied with a tank, regulator and inflation hose to fill the lifting drums.

The drums were filled until they were self supporting and all the drums and chains were safety tested. The drums attached to the upper most part of the anchor were filled first, by doing this the anchor was brought up from its side to an upright position. Even after filling the drums completely the anchor would not lift. Everyone swam clear from the anchor then the barrels and the anchor were shaken until they broke free and ascended. It was magnificent to see the anchor glide to the surface with thousands of bubbles surrounding it. The bubbles demonstrated to the class the effects of Boyle's Law. The air more than doubled its volume coming up from forty feet. As the barrels and anchor broke the surface, the barrels seemed to lurch for the sky. We made sure each barrel was full and sealed them to maintain lifting force.

We tried to tow the anchor behind the boat. The drag was so great we couldn't make any headway and we lost maneuverability. So we switched the tow line to the bow cleat and ran the boat in reverse. This worked out very well and we were able to tow the anchor along side the



Salvaging an anchor offers an advanced class a unique opportunity to learn many new diving skills.

pier. A fifty ton crane lifted the barrels and anchor from the water.

The anchor weighed about 2,500 pounds. We donated it to the diving club, where it now sits in front of the clubhouse.

By utilizing light salvage as a class project, the students were able to work as a team striving toward one main goal and actually visualizing physics principle at work and improving advanced skills.

Hopefully by sharing this experience, other instructors will be motivated to include light salvage projects into the curriculum of their own advanced classes. **-NN-**

Curtis W. Haney, has been a NAUI Diver for eight years. He has received certifications in basic, advanced, Dive-master, Skin Diver Leader, and Assistant Instructor. He has also received three Letters of Appreciation from NAUI.



Plan now for IQ Eleven
October 11-14
Houston, Texas



COMMANDING OFFICER
U. S. NAVAL STATION
FPO SAN FRANCISCO 96614

4 January 1978

Mr. George H. Balazs
Assistant Marine Biologist
University of Hawaii at Manoa
P.O. Box 1346 - Coconut Island
Kaneohe, Hawaii 96744

Dear Mr. Balazs,

In reference to your letter of 27 December 1977, your authorization to travel on our station's helicopters to and from Kure Island remains valid. As you may recall we normally make logistics flights on Monday and Friday each week. You are most welcome to travel on any of these flights during your two week stay on Kure.

We will obtain clearance for you to utilize the MAC Logistics flight on Tuesday, 14 February 1978. Payment for your flight should be handled by the University of Hawaii as in past trips.

I am looking forward to seeing you again.

Sincerely,

D. H. FISCHER

VZCZCLVA033
RTTUZYUW RUMPLVA5944 0040325-UUUU--RUHPSUU.
ZNR UUUUU

R 040300Z JAN 78
FM NAVSTA MIDWAY ISLAND
TO COMNAVBASE PEARL HARBOR HI
INFO NATCO HICKAM AFB HI
BT

O-ADMIN //TAC

UNCLAS //N04650//

TRANSPORTATION OF NON-DOD PERSONNEL IN NAVAL AIRCRAFT

A. CNO WASHINGTON DC 252208Z JAN 77 (NOTAL)

B. DOD 4515.13R

1. REF A GRANTED AUTHORITY FOR MR. GEORGE H. BALAZS, ASSISTANT MARINE BIOLOGIST, UNIVERSITY OF HAWAII AT MANOA, TO UTILIZE SPACE AVAIL TRANSPORTATION TO KURE ISLAND FROM MIDWAY ISLAND DURING RESEARCH OF GREEN TURTLES THROUGHOUT THE NORTHWESTERN HAWAIIAN CHAIN, AS AN EXCEPTION TO REF B. MR. BALAZS HAS REQUESTED THAT HE BE ISSUED TVL ORDS AND MTA, PAYABLE BY INTERNATIONAL TARIFF RATE, FOR THE 14 FEB 78 LOGISTIC MAC FLT TO MIDWAY FROM HICKAM AFB, HI. RETURN TVL ARRANGEMENTS WILL BE PROVIDED BY THIS CMD.

BT
#5944

NNNN

obtained
10/78 at new Boat house

EXERPTS FROM NAVSTAMIDWAY INST. 1710.4 SERIES

1. Areas indicated on the map are restricted areas for recreational boating. Stay out of them and stay inside the reef.
2. Boating secures one hour prior to sunset. Be back.
3. Recreation boats are not to be beached or tied to the reef.
4. Sail boats have the right-of-way.
5. Remain clear of swimming areas. Depart from and return to ramp at slow idle.
6. Alcoholic beverages are not permitted in boats.
7. Operate the boat in a safe manner.
8. Maximum persons in boat is four (4).
9. If disabled, signal the patrol boat (it makes regular runs). Save your flares as a last resort, in case you start drifting out to sea.
10. Do not cut anchor lines, jump in the water and free the anchor.
11. We do revoke licenses for violations of boating regulations. Be legal, be safe and have a pleasant time boating.

REEF HOTEL

REEF

REEF

WELLS HARBOR



HOOK

PICKET PT



SAND ISLAND

CHANNEL

EASTERN ISLAND

GOONEY ISLAND

SPIT IS

FRIGATE PT



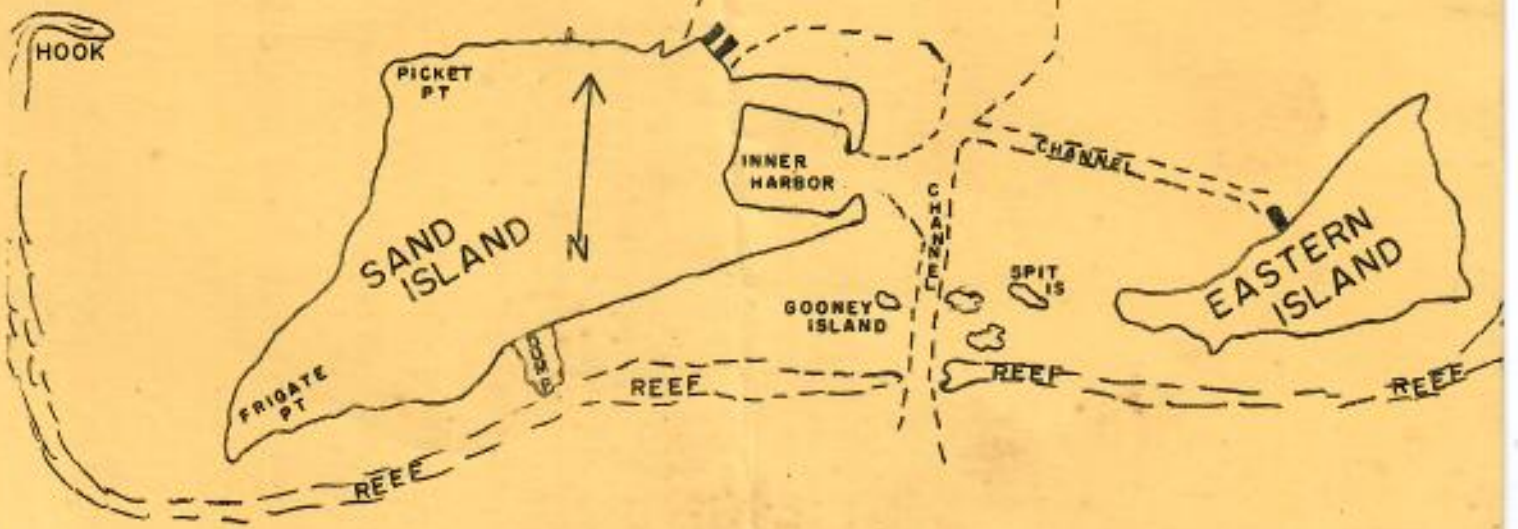
REEF

REEF

REEF

REEF

CHANNEL



Mr. & Mrs. Curt Haney
711 E. Leicester Ave. Apt. B-12
Norfolk, VA 23503

Dear George and Linda,

We were really happy to get your letter. Curt says when we next talk to Mac we'll make sure he sends you the information hope its not too late to be useful.

Congratulations on your coming arrival its really terrific. Ours is hardly new anymore he's very big and extremely independant. His daddy had him swimming this summer

Curt has settled in on his job it seems to be making him happy.

I'm fine also a little tired of housewife routine hopefully by next fall we'll be

(2)

settled for a 2 or 3 year tour
and I'll be able to go to
school again or something. I'm
not quite sure what.

Well thats it for here Curt
wanted me to tell you about
Mac.

Take care.

Curt, Candie, Joshua

SEPT 25

DEAR George & Lewon,

Hope you have the new house by now, and everything is going well.

WE lived in the Winton hotel for 20 days before getting a very small house. Can not get all our stuff in it but hopefully will get base housing next year.

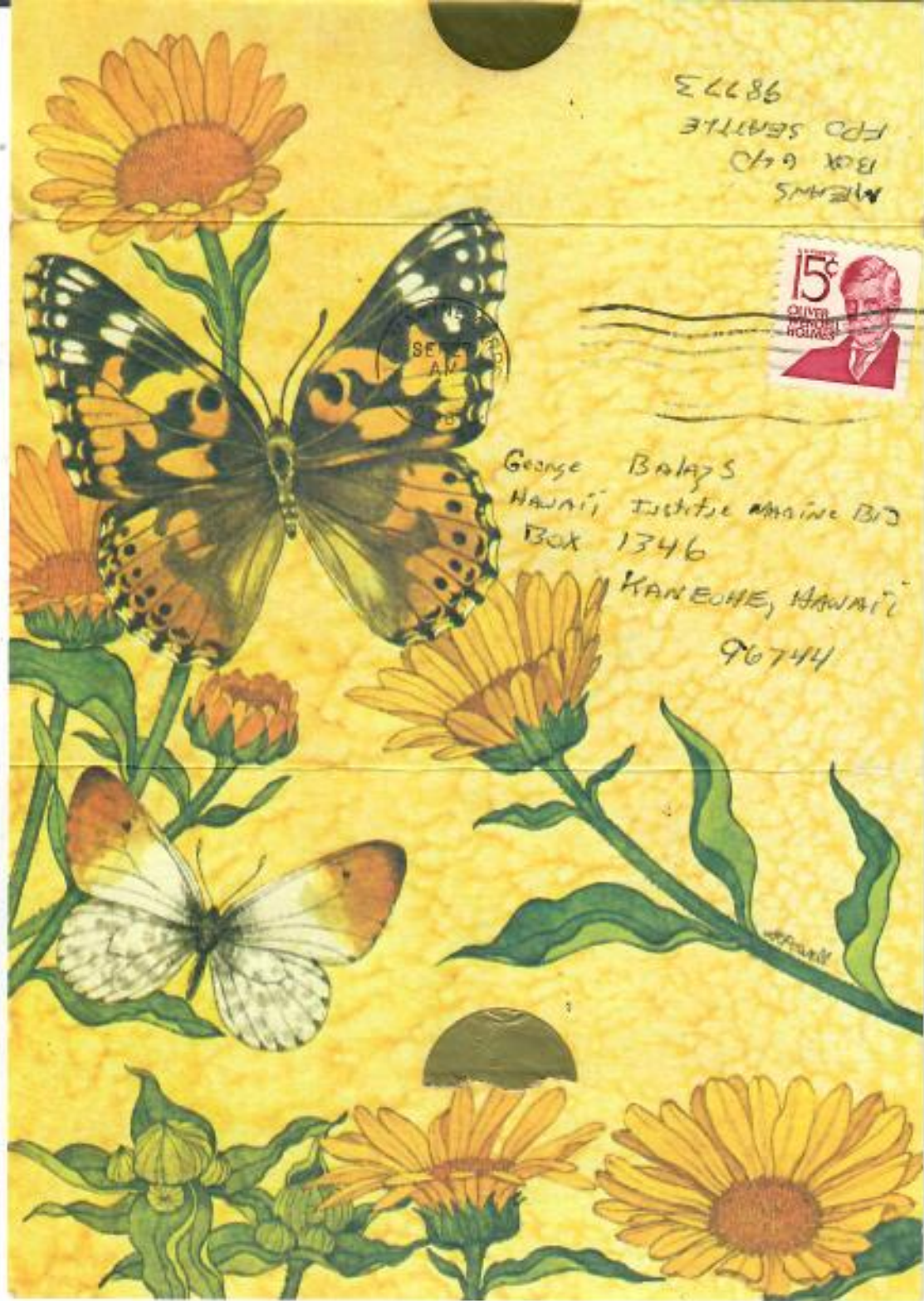
Neither of us like it here much. Just too hectic after midway. Linda's school is an old PW camp. All huts and no air conditioning. She has to teach 6th graders.

The diving has been ~~and~~ destroyed here. So much construction has caused all kinds of sinking and the coral has died.

George they have hawk's bill turtles hung up all over the place. Every small shop & hotel has them for sale.

We are going to try to send some of our marine bio & oceanography students in to the oceanography conference again this year. I went last year from Kubasaki. They told me they saw George's turtles but not George. Let us hear from you.

Hay & Linda.



98773
FPO SEATTLE
BOX 640
MEAMS



SEATTLE
WA
SEP 14
AM '53

George Balazs
Hawaii Institute Marine Biol
Box 1346
KANEHOHE, HAWAII
96744

DEPARTMENT OF THE NAVY
U. S. NAVAL STATION
FPO SAN FRANCISCO 96614

15 November 1976

George H. Balazs
University of Hawaii at Manoa
Hawaii Institute of Marine Biology
P.O. Box 1346, Coconut Island
Kaneohe, Hawaii 96744

Dear Mr. Balazs,

First, my apologies for not having answered your questions earlier. However, after thoroughly researching the applicable regulations, it is apparent that a waiver for you to fly in Navy aircraft is not possible.

In regard to your visiting Midway Island, if you will notify me of the date and length of stay you desire to visit, I will arrange entry approval and reservations via MAC from Hickam AFB to Midway and return. As we discussed, every attempt will be made to obtain the government rate vice International Tariff Rate for your travel on MAC.

I am looking forward to hearing from you in the near future.

Sincerely,


K. R. MILLER

K. R. Miller, CDR, USN
U. S. Naval Station
FPO San Francisco 96614

SEAL

Found Fri 10th FEB:
O-Beach

5011 + 5012 TAGS

Two Wounds Right Side

Two Wounds Chest Area

Found Back on Em Beach
Sat 11th

Dressed into water SUN 12th
after much harassment

Back on Beach 16th
Stayed until: 20th

FEB

2176-2179

Weddingston:

2184-2185

MA. SEU

2182-2183

LOSIECH

~~The Bible Soc
PAID 1/1/1914
GAMES 1914~~

135

23 April: 2192 - 2193

Eastern: Gloria D. McCuiston

curved straight plaster

17 7/8 x 16 3/4 17 1/8 x 14 3/8 13 1/2

Time weight

1 21 lbs.

in book

Sunday

April

1978

Dear GEORGE,

Sorry but you were too late on the camera things: It was all sent back to Japan 2 weeks ago. Hardly anything left in the exchange.

Have enclosed info on last turtle: The patches are causing lots of interest and excitement in the club wants to catch a turtle so they will get their patches before my-leave.

No jobs for Linda & I yet. Don't know what is going on. Trying to ship us off to Germany I think.

YACC

The YACC works are doing well so far. Haven't started the vegetation work yet but with this week I was finally able to convince Brent that it was not the best thing to dump the ^{dead} diseased birds ^{discarded} birds at sea. even though Pentecost & Swedberg wanted that. Have a ~~small~~ tank set up to burn them in but not picking up very many. We think most will survive:

Brent told me he was doing some of your lectures this week while you were gone. He still can not figure out how the article & picture got in the paper about the disease.

Hope to hear from you soon.

SU

Shug.

↓
T. J. Miller

P.S. Mr. Se is joining Kornel Kings in 1964 so he is oldest member of the Island.

1978
Sunday 23

Dear Edmond,

Sorry but you were for date on the calendar
things. It was all sent back to Japan 2 weeks
ago. Thank you very much for the calendar.
The calendar left on last Tuesday. The picture
has coming back of interest and everyone in the club
wants to watch a tape to see if they will get this picture
before they leave.

No gift for Linda & Jeff. Don't know what
to give them. Trying to give as much as I can.

JAC

The year would be a long one for you. I
started to write a letter but you left this week
I was finally able to come home. I hope if you
get the best thing to do for the district. I
don't know how to do it. I'm sorry to hear that
there is a ~~problem~~ set up in your office.
But not getting up very early. We think work
will continue.

Edmond told me he was doing good for you.
Because this week while you were gone.
The bill can not figure out how the article
a picture got in the paper about the
district.

Hope to hear from you soon.

Gary & Linda Means
Box 5 USNB
EPO San Francisco
California 94614

20

1978

May 19 78

Dear Linda & George,

Thought I should write and try to catch you up to date as what has been happening here. Linda and I were the only teachers that DOD could not place so we were issued RIF notices about two weeks ago. Said our only competitive area was Midway so thought we were out of jobs. We wrote up a grievance about it and sent it in. All this time other people in the Pacific were getting transfers but not us since they could not find jobs for both of us in the same place.

Finally today we got messages saying that I was going to the high school in Okinawa to teach physics and Linda to one of the Junior Highs.

We will probably be leaving here on the 10th of June and do not know yet if we will have any time in Hawaii or not. Depends on when summer school starts. We pack out on the 31st of May so not much time to get things organized. Dori, Kay, Jean, and Dr. Rhea are all also going to Okinawa but all to different schools.

We have a Koral Kings night dive for tomorrow night behind Eastern. Hope to catch some turtles beside the lobsters. I caught a turtle this afternoon behind the spits. Jumped on him from the boat. Linda and Weddington giving to advice all the way. Last week I thought I spotted two turtles and jumped out of the boat on top of one and cut my hand all up. Turned out to be a coral head. Weddington and the rest have not let me forget about that. Said they were going to tell you I was out tagging rocks for you.

Tell Steve that I got his coral and the thermograph

pulled on the 6th of May. Will get it mailed if you are not coming out again.

Maybe Linda and I will be able to start a turtle tagging project for you in Okinawa.

Hope that you both are both fine. She hope to get to see both of you again before we have to leave. Linda is not very happy about having to teach junior high but I guess it is better than no job at all. We are trying to sort things as our weight allowance to there is very limited.

Almost forgot. The Marines did invade Midway.

used area 7. had a regular mock battle out there. Drag the elephant seal xxx around on the beach and I had to report that to Brent and Streater. They plan on doing this again and also on Eastern in Sept.

Last 2 turtles caught;;

2194-2195 16 1/4 x 15 1/8 curved 24 lbs, Hotel area

2196-2197 20 X 18 1/2 curved 40 lbs 19 May
Behind spits. (Linda's Patch)

How was the big conference in D.C.? See the turtles got a plug in the article on the Refuge in the Last National Geographic.

See you soon

Gary & Linda

Little Blue Heron

Found from central Oklahoma to central Alabama, and along the Atlantic coast from Massachusetts to South America, the Little Blue Heron is among the long-necked, long-legged wading birds dominant in the South. Their angular body structure belies the graceful posturings and movements of these large birds, generally measuring 20 to 29 inches in length.

When building their frail nests in the inland waters, the pair of Little Blues may pause to rub their necks and nibble the other's feathers. The nest, set low in a willow or bush, contains four or five greenish-blue eggs.

The immature Little Blue, which remains white until he is two years old, often wanders when the nesting season is over in late summer. He may fly as far north as New England and Southern Ontario, remaining there until the chill weather sends him southward again for the winter.



NORTH AMERICAN BIRDS
ECOLOGY CARDS
100% RECYCLED PAPER

Coronet, Inc.

CHICAGO, ILLINOIS, COLORADO

April 14

Dear George & Linda,

Hope everything is going good for the both of you. Biggest excitement here has been the burning of A housing last weekend. We watched 3 of the marine hover jets land here today. They are something else. ~~fast~~ No bird strikes with them as they can come down so slow.

We have still not gotten any word on where or if we are going to get jobs. Guess we will just have to try and keep hold of our nerves a while longer.

George, two turtles were tagged that you do not have.
23 rd March Bob Davis # 2188 & # 2189 18½ in long.
25 March Dr. Rhea #2190 & 2191 19½ in long.
Davis will be leaving about the 10th May since he is with MCB 1.

in book

Mr. Penter who works with Swedberg came out on Tuesday and informed us that we had been doing everything wrong. Also that in a Big meeting Monday they had decided all the infected birds should be destroyed and instead of burning, dumped at sea. Also that he and Swedberg had decided that the flys were not transmitting the disease.

He said the Navy was afraid of bad publicity from the ~~text~~ people in Hawaii and that they were not satisfied with the way the A housing relocation of the birds had been handled by the game warden/s. The exact opposite as Brent had told me as he watched us do it Sat.

Any way I called Brent and told him I did not need any more help such as Penter was giving me. He would not make a decision on the burning or dumping of the birds as sea so I told him I felt burning was ~~just~~ was the best and Dr. Friend had instructed us to burn them.

Will have to ~~wait~~ wait until he comes out with the youth core Wed to have his decision. We did start the banding of some of the infected birds that are getting better and we are not going to destroy any except those that have lost their eyes.

We have had another kill of 27 birds and also the sign in the antenna field was stolen. Think it went out on one of the ships.

Mr. Pekelder is the new club president, Trevino vice, Waddington, Sec. They are trying to get a night dive for Eastern the first full Moon of May so would be the 20th or 21.

Tell Skip the big meeting about the fishing fleet here was not too succdssful from what I can here.

Hope to see you soon, Linda, tell George to bring you along this time.

Gary.

George, two turtles were tagged that you do not have.
23 rd March Bob Davis & 21st & 22nd in June.
25 March Dr. Hines & 21st & 22nd in June.
Davis will be leaving about the 10th day since he is with Bob I.

Mr. Fenter who works with Gwendolyn came out on Tuesday and
informed us that we had been doing everything wrong. Also that in
a big meeting Monday they had decided all the infected birds should
be destroyed and instead of burning, dumped at sea. Also that he
and Gwendolyn had decided that the TVs were not transmitting the disease.

He said the Navy was afraid of bad publicity from the press people in
Hawaii and that they were not satisfied with the way the A housing
relocation of the birds had been handled by the Navy. The
exact opposite as Brent had told us we had watched us do it last
day way I called Brent and told him I did not want any more birds
such as Fenter was giving me. He would not make a decision on the
burning or dumping of the birds as we as I told him I felt burning
was best and Dr. Fenter had instructed us to burn them.
Will have to watch what will be done with the youth core but
to have his decision. He did start the banding of some of the infected
birds that are getting better and we are not going to destroy any except
those that have lost their eyes.

We have had another kill of 27 birds and also the sign in the
antenna field was stolen. Think it went out on one of the ships.
Mr. Fenter is the new chief resident. Traveling also. Washington
They are trying to get a night dive for Eastern the first full
moon of May so would be the 20th or 21st.

Will bring the big meeting about the lighting that was not
too far from what I can hear.

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Will bring the big meeting about the lighting that was not
too far from what I can hear.

Box 146 Arroyo,
Calif 95004
HANEY EW.
ZIP CODE

1.
April 2, 1958

Dear George & Linda.

I hope this letter finds you both in good health & spirits. Candy & I are fine, Josh also. First about your letter I received, Glad to hear about your good trip to Midway & the turtles and all. If you go back to Midway, there was a book somewhere in the file cabinet in the K.K. office that tells all about the club & when it was formed and all. I would send you mail's address, but I lost it. I should be in contact with him in a couple of weeks or so. When I am I'll get his new address & send it to you & K.K. and ask him what you want to know also & write you. He's kind of bad about writing. I know his in Long Beach at a Commercial Diving Center school but that's it - that's in Calif.

ours &

I'm Presently at Treasure Island S.F. cal.,
Completing my last ^{week} of training in
Shipboard damage control, firefighting & Nuclear
Biological Warfare. I graduate here on the
7th of april & have to be in San Diego by
Midnight the 9th. for the remaining 10 weeks
of school. then after that I'm suppose to stay
there for another 12 weeks of Divers training.
Scuba & Salvage Hard Hat. So I'll be down
there for a while. I haven't been diving
lately since I left midway as a matter of
fact. There's just no time & nobody here I know.
But when I get to midway I have quite a
few people I know there, Remember Erylon
Hines that I was diving with a lot
when you first met me on Midway. Well
his one. I go to school from Mon to fri.,
7 AM to 3 PM, & ~~the~~ weekends I drive 100 miles
South to Monterey Bay, where Condi & Josh
are staying with my mom & dad who
are building a new house. Its suppose to
be done by 15 apr. When I go down to S.O.
next weekend I'm going to live up in an apt. &
Bring Condi & Josh down on the following Weekend.

This school is pretty easy there are 20 guys in my class & I outrank them all, Most of them are right out of Boot Camp. So far from the 9 tests we've had I have an average of 94.90% the highest in the class.

I bought a new 1978 Toyota Pick-up with all the extras you can think of & a little camper on the back too for \$6000 they wanted \$7,900 for it but I Jewel them down a little. I'm going to keep it about a year and trade it in on a 79 or 80 Van. Condi can't drive a stick so I'll have to get an automatic & by then Josh will be getting bigger & well need the Van for sure then, especially if we decide to have another child.

Well that's about it for now I guess, ~~if~~ you have my address. in a couple of weeks I'll send our new address in S.D.

Hope to hear from you soon
Love Curt & Carla & Josh.

MARCH 29,

Dear George,

Though I would send you this. Nothing
been done here yet. We are starting and
destroying the severely ~~damaged~~ infected birds
Friday and getting rid of the vegetation.

Not getting much help from the Command.
They are not going to allow the spraying as
afraid it will get into the brackish H₂O wells.

Bob Weddington ordered ^{a ~~part for~~} \$150 worth
of different books from the company that
published yours while ^{he} ~~you~~ ^{was} ~~went~~ in. The
postage came to \$1.05 more than he gave
them so they sent C.O.D. and since there
is no C.O.D. at a military post office
the Post Office is sending them back. Could
you please call them and explain and
have them tell us how much more we need
to send to get the books out here?

Danie, Linda & I are now the only ones with out jobs. Hope we hear soon. Just found out that the Mill my Dad & brother worked at closed down and they are all out of jobs plus Dad lost all his retirement etc with 1 1/2 years left to go.

We really enjoyed visiting you & Linda and hope we have a chance to get together again this summer.

By the way the Eagle is still here.

Mary.

WEIGHT CHANGES IN JUVENILE GREEN TURTLES
TAGGED AND RECAPTURED AT MIDWAY,
NORTHWESTERN HAWAIIAN ISLANDS

by

G. H. Balazs

Hawaii Institute of Marine Biology
P. O. Box 1346
Kaneohe, Hawaii 96744

March 1978

| Tag No. | Months/Days | Weight Change (lbs) |
|---------|-------------|---------------------|
| 911 | 7 - 10 | +1 |
| T89 | 1 - 17 | -1 |
| A609 | 28 - 14 | +6 |
| T88 | 1 - 14 | -1 |
| 913 | 10 - 19 | -3 |
| 873 | 37 - 5 | +5 |
| T79 | 4 - 2 | -4 |
| A615 | 27 - 15 | +2 |
| T98 | 3 - 12 | -5 |
| T96 | 4 - 14 | -2 |
| T97 | 6 - 17 | +1 |
| T439 | 4 - 26 | +3 |
| T429 | 4 - 6 | +3 |
| T407 | 28 - 8 | +7 |
| T472 | 6 - 7 | 0 |
| 1474 | 16 - 23 | +5 |
| 1480 | 5 - 4 | -1 |
| 1482 | 20 - 3 | -0 |
| 1479 | 11 - 15 | +6 |
| 2178 | 7 - 2 | +5 |

SUMMARY OF GREEN TURTLES TAGGED AND RECOVERED AT MIDWAY

Compiled by
George H. Balazs
Hawaii Institute of Marine Biology

| Year | J | F | M | A | M | J | J | A | S | O | N | D | Total | Recovered | Retained |
|------|---|---|---|---|----|----|----|----|----|----|---|---|-------|-----------|----------|
| 1969 | - | - | - | - | 10 | 8 | 4 | 0 | 0 | 2 | 2 | 2 | 28 | 0 | 0 |
| 1970 | 0 | 0 | 6 | 0 | 9 | 0 | 3 | 1 | 1 | 10 | 1 | 0 | 31 | 0 | 1 |
| 1971 | 1 | 1 | 1 | 0 | 0 | 7 | 7 | 0 | 5 | 5 | 0 | 0 | 27 | 0 | 1 |
| 1972 | 0 | 0 | 1 | 7 | 3 | 10 | 18 | 15 | 16 | 8 | 9 | 0 | 87 | 18 | 4 |
| 1973 | 7 | 5 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 12 | 4 | 0 |
| 1974 | 0 | 1 | 0 | 7 | 2 | 0 | 0 | 1 | 0 | 4 | 7 | 0 | 22 | 3 | 1 |
| 1975 | 0 | 1 | 0 | 1 | 13 | 2 | 0 | 1 | 0 | 2 | 2 | 1 | 23 | 3 | 0 |
| 1976 | 4 | 3 | 2 | 1 | 0 | 0 | 0 | 1 | 2 | 0 | 0 | 0 | 13 | 3 | 0 |
| 1977 | 0 | 0 | 0 | 2 | 2 | 10 | 1 | 1 | 1 | 0 | 0 | 0 | 17 | 4 | 1 |

TURTLE TAGGING INFORMATION

Weight = round measure with tape ruler. All other measurements taken with erlipers.

| TAG NO. | DATE | TAIL LENGTH | PLASTIC LENGTH | CARAPACE WIDTH | CARAPACE LENGTH | THICKNESS | CARAPACE WIDTH | CARAPACE LENGTH | WT | No. of Captive plates | No. of Op41 plates | REMARKS |
|----------|----------|-------------|------------------|----------------|---------------------------|-----------|----------------|-----------------|--------|-----------------------|--------------------|--------------|
| X1426 | 4-25-75 | 2.5 | 12.2 | 12.5 | 16" | 6.25 | 15" | 19" | 24 1/2 | 3 | 3 | NA-FAC |
| X1528 | 5-4-75 | 1 3/4 | 13 | 13 1/2 | 16 1/8 | 6 1/4 | 16 | 17 1/4 | 22 1/4 | 4 | 4 | BALAIS-16 |
| X1451 | 5-4-75 | 2 1/8 | 1.3 | 12 1/4 | 15 1/2 | 5 3/4 | 14 | 16 1/2 | 18 1/2 | 4 | 4 | Hires-21 |
| X1457 | 5-4-75 | 2 1/2 | 12 1/4 | 12 1/4 | 15 1/4 | 6 1/4 | 15 1/8 | 16 1/4 | 19 1/2 | 4 | 4 | Hires-21 |
| X1461 | 5-24-75 | 3 1/2 | 13 1/2 | 14 1/2 | 16 3/4 | 7 | 15 | 15 | 30 | 3 | 3 | Robbins |
| X1472 | 5-24-75 | 2 1/2 | 12 | 12 | 14 1/2 | 5 1/2 | 15 | 12 1/2 | 23 | 3 | 3 | Yarber - 11 |
| X1472 | 5-20-75 | 2 1/2 | 12 1/2 | 13 3/4 | 15 3/4 | 6 1/8 | 15 | 12 1/2 | 23 | 4 | 4 | PeKelde |
| X1466 | 5-24-75 | 2 1/2 | 14 1/4 | 15 1/4 | 19 1/8 | 7 1/8 | 18 3/8 | 21 | 31 1/2 | 4 | 4 | MINER |
| X1474 | 4-1-75 | 2 1/8 | 14 1/4 | 15 1/4 | 17 1/2 | 7 1/8 | 17 | 18 1/4 | 31 1/2 | 4 | 4 | Hires |
| X1476 | 4-1-75 | 2 1/8 | 14 1/4 | 15 1/4 | 17 1/2 | 7 1/8 | 17 | 18 1/4 | 31 1/2 | 4 | 4 | MINER |
| X1474-75 | 8-11-75 | | RETAKE / 300 YD. | SEEN | PREVIOUS POINT OF CAPTURE | | | | | | | Hires |
| X1481 | 6-17-75 | 2 1/2 | 16 3/4 | 12" | 21" | 8 1/2 | 21 | 24" | 50 | 4 | 4 | MINER |
| X1482 | Nov-1-75 | 2 1/2 | 22 1/2 | 18 1/2 | 18" | 9 3/4 | 18 1/2 | 25" | 60 | 4 | 4 | Robbins |
| X1485 | 8 Nov 75 | 2 1/4 | 13 1/2 | 14 1/4 | 16" | 6 1/2 | 17 1/2 | 17 3/4 | 24 1/2 | 4 | 4 | Robbins |
| X1487 | 1488 | 2 1/4 | 30 1/4 | 3 1/4 | 37" | | NA | NA | 17 1/2 | 4 | 4 | DUNNAY-McK |
| X1529 | 1/4/76 | 1 1/2 | 15" | 14" | 15 1/4 | 6 3/4 | 14 1/4 | 16" | 20 | 4 | 4 | Robbins |
| X1530 | 1/5/76 | 1 1/2 | 13" | 14" | 15 1/4 | 6 3/4 | 14 1/4 | 16" | 20 | 4 | 4 | Robbins |
| X1489 | 1/6/76 | 2 1/4 | 17 1/2 | 24 1/2 | 26 | 9 1/4 | 19 1/2 | 24" | 74 | 3 | 3 | slight range |



TURTLE TAG TAG INFORMATION

copy * = found measure with tape ruler. All other measurements taken with calipers.

| CAP NO. | DATE | TAIL LENGTH | PLASTIC CARAPACE LENGTH | CARAPACE WIDTH | CARAPACE LENGTH | THICKNESS | CARAPACE WIDTH | CARAPACE LENGTH | CARAPACE LENGTH | NO OF PLATES | CAPTURE |
|----------------|-----------|-------------|-------------------------|----------------|-----------------|-----------|----------------|-----------------|-----------------|--------------|---|
| X 234 | 11/30/74 | 1" | 13" | 14" | 15 3/4" | 6 3/4 | 14 1/4" | 16" | 20" | 4 | LT BROWN |
| X T-407 | 11/21/74 | 4 1/2" | 23 1/4" | 16 3/4" | 22 3/4" | 8 1/2 | 22 1/2" | 24 1/4" | 62 | 5 | BILL PERELDER STANLEY NEW JAC - 7-235 |
| X 235 | 11/31/74 | 3 1/4" | 18 1/4" | 17 3/4" | 17 5/8" | 7 1/4" | 17" | 18 3/4" | 34 | 4 | STANLEY HONEY BURK Dardas, Wilson |
| X T-236 | 11/3/77 | 3 1/4" | 13 5/8" | 14" | 17 1/4" | 6 3/8" | 16 3/8" | 18" | 27 | 4 | |
| X count 472 | 26.10.75 | 3 1/4" | 16" | 15 1/4" | 19 3/4" | 7 1/4" | 16 1/2" | 16 3/4" | 40 | 4 | |
| X 404 | 26.10.75 | 3 1/4" | 14 1/2" | 14 1/4" | 16" | 7 1/4" | 15" | 19 1/2" | 30 | 4 | MNCV |
| X 480 | 1/26-75 | 1 1/4" | 15 3/4" | 15" | 18" | 6 1/2" | 15 1/2" | 18" | 44 | 4 | MNCV |
| X 482 | Jan 31-75 | 1 1/2" | 13 3/4" | 14" | 17" | 6 1/2" | 14 1/2" | 16" | 21 | 4 | YARBER |
| X 474 - 477 | Feb 1-76 | 1 5/8" | 15 3/4" | 15" | 18" | 6 1/4" | 15 1/2" | 18" | 21 | 4 | YARBER |
| X 499 - 478 | Feb 7-76 | 4 1/2" | 17 1/2" | 17 1/4" | 21 1/2" | 7 1/4" | 19 3/4" | 22 3/4" | 50 | 4 | Perasco |
| X 500 - 1531 | 26 MAR 76 | 2 1/2" | 12 1/2" | 13" | 15 1/4" | 6 1/2" | 13 1/2" | 14 1/4" | 23 | 4 | mode |
| X count 480-51 | 30 MAR 76 | 2 1/2" | 17 1/4" | 17 1/4" | 21 1/4" | 8 1/4" | 20" | 22" | 49 | 4 | LT BROWN |



| TAG NOS. | CURVED CARAPACE | | STRAIGHT CARAPACE | | Plestron length | Tail length | weight | Area/DATE | Remarks |
|----------|-----------------|--------|------------------------|--------|-----------------|-------------|---------------------|----------------------|----------------|
| | length | width | length | width | | | | | |
| X 1551 | 17 | 16 | 12 1/2 | 13 3/4 | 15 | 1 1/2 | 31 | NO TAG | 3.5' SLEEPING |
| X 1524 | 18 3/4 | 16 3/4 | CALIPERS NOT AVAILABLE | | AVAILABLE | 1 1/2 | SCALE NOT AVAILABLE | 8/20/76 | 5' HOLLOW GAAG |
| X 1532 | 17 1/4 | 16 | 16 1/4 | 13 1/2 | 12 3/4 | 2 7/8 | 24 | 9/4/76 | 20' SLEEPING |
| X 1534 | 19 3/4 | 17 1/2 | 16 1/2 | 13 1/4 | 13 1/4 | 3 1/4 | 27 | 9/11/76 | 20' SLEEPING |
| X 1537 | 19 1/4 | 17 1/2 | 18 1/2 | 14 1/2 | 15 1/2 | 1 1/4 | 36 | (FUEL PIER) 10/20/76 | HANEY |
| X 1539 | 21 3/4 | 19 1/2 | 20 1/2 | 15 3/4 | 17 1/2 | 1 1/2 | 45 | | HANEY #1475 |

1. attach to left front flipper close to body and turn end for end (see photo)-allow room for growth
2. attach to right front flipper at central location and turn end for end (see photo) -allow room for growth
3. to be taken only if calipers and scale are readily available
4. measure from end of plestron to end of tail
5. rotation, injuries, previously tagged turtle, etc.

| TAG NOS. | CURVED CARAPACE | | STRAIGHT CARAPACE ³ | | Plastron length | Tail length ⁴ | weight ³ | DATE | Remarks ⁵ |
|----------|-----------------|--------|--------------------------------|--------|-----------------|--------------------------|---------------------|------------|----------------------|
| | length | width | length | width | | | | | |
| X 1541 | 17 | 16 | 16 1/4 | 13 3/4 | 14 | 1 1/4 | 25# | 23 APR 77 | INTER HAZARD |
| X 1543 | 13 1/4 | 13 7/8 | 18 1/4 | 14 3/8 | 11 1/4 | 3 3/4 | 18# | 23 APR 77 | INTER HAZARD |
| X 2108 | 15 3/4 | 14 | 14 3/4 | 11 7/8 | 11 3/4 | 2 1/2 | 17# | 28 May 77 | INTER HAZARD |
| X 2163 | 18 x | 15 7/8 | 16 7/8 | 13 5/8 | 13 5/8 | 3 | 25# | 31 May 77 | INTER HAZARD |
| X 2165 | 19 3/8 | 17 3/4 | 18 1/4 | 15 5/8 | 14 7/8 | 3 | — | 2 June 77 | INTER HAZARD |
| X 2167 | 38 | 36 1/2 | 35 1/2 | 28 5/8 | 27 7/8 | 7 3/4 | 70# | 3 June 77 | INTER HAZARD |
| X 2171 | 20 3/8 | 19 1/4 | 19 3/4 | 16 | 15 3/8 | 3 1/2 | 43# | 13 June 77 | INTER HAZARD |
| X 2173 | 22 1/8 | 19 1/4 | 20 5/8 | 16 | 16 3/4 | 3 3/8 | 43# | 4 June 77 | INTER HAZARD |
| X 2175 | 23 5/8 | 21 1/4 | 22 1/2 | 18 | 17 3/8 | 5 | 60# | 4 June 77 | INTER HAZARD |
| X 2112 | 18 1/2 | 16 1/2 | 17 1/4 | 14 | 14 | 3 1/8 | 30# | 7 JUN 77 | INTER HAZARD |
| X 2115 | 17 3/4 | 16 5/8 | 17 1/4 | 37 | 14 1/2 | 3" | 30# | 15 Jun 77 | INTER HAZARD |
| X 2178 | 16 1/2 | 14 9/8 | 15 3/4 | 11 | 13 | 1 1/4 | 20 | 08 Jun 77 | INTER HAZARD |
| X 2178 | 16 1/2 | 14 7/8 | 18 1/2 | 14 1/4 | 15 | 3/4 | 35 lbs | 12 Jul 77 | INTER HAZARD |
| X 2180 | 17 1/2 | 16 | 15 3/4 | 11 | 13 | 1 1/2 | 22 | 20 Aug 77 | INTER HAZARD |
| X 2180 | 17 1/2 | 16 | 15 3/4 | 11 | 13 | 3 | 20 | 10 Sep 77 | INTER HAZARD |

1 attach to left front flipper close to body and turn end for end (see photo) - allow room for growth

2 attach to right front flipper at central location and turn end for end (see photo) - allow room for growth

3 to be taken only if callipers and scale are readily available

4 measure from end of plastron to end of tail

5 coloration, injuries, previously tagged turtle, etc.

MIDWAY ISLANDS TURTLE TAGGING INFORMATION

G. H. Balser

Hawaii Institute of Marine Biol

| TAG NOS. | CURVED CARAPACE | | STRAIGHT CARAPACE ³ | | Plastron length | Tail length ⁴ | weight ³ | Area | Date | Remarks |
|----------|-----------------|---------|--------------------------------|--------|-----------------|--------------------------|---------------------|-----------------------------|-----------|---------|
| | length | width | length | width | | | | | | |
| x 2182 | 17" | 15" | 13 3/4" | 14" | 13 3/4 | 3" | 25 lbs | PIC | 29 JAN 78 | |
| x 2184 | 21" | 19 1/4" | 17" | 17" | (3 1/2) | 1 1/2" | 45 lbs | NEAR RUNWAY ³ | 29 JAN 78 | |
| x 2186 | 16 | 14 | 15 1/4 | 12 1/2 | 12.5 | .75 | 23 | Harbor | 4 Feb 78 | |
| ✓ 2151 | 22 3/8 | 20 3/8 | 21 1/8 | 16 3/8 | 16 7/8 | 3 1/4 | 48 | SEASIDE | 18 Feb 78 | Bula |
| ✓ 2178 | 16 3/8 | 15 3/8 | 16 | 13 1/4 | 13 3/8 | 3 3/8 | 24 | Harbor | 18 Feb 78 | chico |
| ✓ 2157 | 17 | 16 | 16 | 13 1/4 | 12 5/8 | 3 3/8 | 21 | SEASIDE | 19 Feb 78 | Bula |

1 attach to left front flipper close to body and turn end for end (see photo)-allow room for growth

2 attach to right front flipper at central location and turn end for end (see photo)-allow room for growth

3 to be taken only if calipers and scale are readily available

4 measure from end of plastron to end of tail

5 coloration, injuries, previously tagged turtle, etc.



WELCOME TO THE

midway station libra

COLLECTIONS

Books (over 10,000 volumes)
Junior Books
Reference
Midway Collection
Education and Career Planning Section
College Catalogs
Welcome Aboard File
Vertical File
Maps
Travel Pamphlets (Hawaii and the East)
Airlane Guide
Hawaii Telephone Directories
Periodicals (more than 50 subscriptions)
Newspapers
Stereo Records and Tapes
Films

SERVICES

Reference
Renewals
Reserves
Inter-Library Loans
New Books
Story Hour
Stereo equipment for listening and taping:
records, cassettes, reel-to-reel
Projectors for individual or group film viewing
Paperback Exchange
Comic Book Exchange
Mail Order Catalogs
Games
Exhibits of hobbies, arts from individuals
and organizations

STATION LIBRARY PHONE NUMBER 497

WELCOME TO THE MIDWAY STATION LIBRARY

To register your name in the borrower's file, just fill out a borrower's card at the circulation desk. Dependent's names are included on the card of their active-duty sponsor. Sponsors are responsible for all materials borrowed by their dependents.

HOW TO LOCATE MATERIALS

The card catalog contains author, title, and subject cards in alphabetical order. The call number in the upper left corner of the catalog card indicates the location of the book.

All non-fiction books are classified according to the Dewey Decimal System. Other books are marked as follows:

| | |
|----------|-------------------------------|
| F | fiction |
| SF | science fiction |
| M | mystery |
| W | western |
| REF | reference |
| MIDWAY | Midway section |
| EDUC | education and career planning |
| EDUC REF | education reference |
| J | junior book |
| JE | junior easy |

Don't hesitate to ask a library staff member for help.

HOURS OF OPERATION

| | |
|-------------------|------------------|
| Monday - Friday | 10 a.m. - 8 p.m. |
| Saturday & Sunday | 2 - 7 p.m. |
| Holidays | Closed |

M C R D

NAVAL STATION, MIDWAY ISLAND

January 1978

SPECIAL SERVICES

CREST & ANCHOR CLUB

ENLISTED MESS OPEN

CONSOLIDATED PACKAGE STORE

BOQ



SPECIAL SERVICES FACILITIES:

AMATEUR RADIO CLUB - The Bird Island Amateur Radio Club is supported by Special Services. Members are always welcome to use any of its facilities. Regularly scheduled phone and teletype patches are made from the club to Hawaii and the U.S.

ARCHERY RANGE - Scheduled for completion in early 1978, this facility is planned to operate seven days a week as an organized club.

BASE THEATER - Full length current movies, Monday through Friday and Sunday at 2000. Two movies on Saturday nights at 2000 and 2200.

DEEP SEA FISHING BOATS - A 32-foot charter fishing boat with a qualified operator is available for rental six days a week from 0800 to 1700. The boat is not operated on Wednesday. Call 391 for further information and reservations.

13-FOOT SAILBOATS - Eight, 13-foot Laser sailboats are available for checkout to qualified operators at a minimal charge on an hourly basis. They are available on Saturday and Sunday from 0800 to 1900 and on Monday and Friday from 1200 to 1900 (spring and summer).

13-FOOT POWER BOATS - Special Services owns and operates 30, 13-foot Boston Whaler power boats which can be rented on an hourly basis for use inside the reef. They are available on Saturday and Sunday from 0800 to 1900 and on Monday and Friday from 1200 to 1900 (spring and summer).

18-FOOT POWER BOATS - Two, 18-foot power boats are available for rental five days a week. They can be used inside or outside the reef. The boats are rented on a daily basis and are not available on Tuesday or Wednesday.

BOWLING ALLEY - Midway's Bowling Alley consists of 12 lanes. Complete with retail facilities and a Pro Shop, it is open from 1100 to 2330 Monday, Tuesday, Thursday, Friday; 1200 to 2400 on Saturday and Sunday; and 1700 to 2330 on Wednesday.

CERAMIC SHOP - The station's Ceramic Shop offers a complete selection of equipment, molds, and greenware. It is open from 1300 to 2100 on Monday, Thursday, Friday, Saturday and Sunday.

COMMUNITY CENTER - Special Services operates a large public hall, appropriately named the "Community Center". It is available for use by all personnel on a reservation basis. There is a 25\$ cleaning deposit required, which is returned if the facility is cleaned after use.

GEAR ISSUE FACILITY - Athletic and recreation equipment from baseball equipment to skin diving equipment is available for check out on a daily basis. Located in the Gym, it is open the same hours as the Gym.

GO-KART TRACK - One of the Navy's largest, the Go-Kart Track is open Saturdays and Sundays from 1000 to 1600.

GOLF COURSE - Midway's "Gooney Dunes" is a challenging nine-hole course. Green fees are required on a daily or monthly basis. The shop office and Pro Shop are open Monday through Friday 0900 to 2000; Saturday and Sunday 0830 to 2000. Winter hours vary, call Special Services at 391 for further information.

GYMNASIUM - Special Services operates a Gym seven days a week. Including a basketball court, weight room, two racquetball courts, and two saunas, its hours of operation are from 1100 to 2200, Saturday and Sunday, and on weekdays, from 1100 to 1330 and 1500 to 2200.

HOBBY SHOP - A retail facility, stocked with all of a hobbyist's needs, it is open from 1800 to 2100 on Thursday and Friday and from 1300 to 2100 on Saturday, Sunday and Monday.

MINIATURE GOLF COURSE - Located adjacent to the Golf Pro Shop, the Mini Golf Course is open the same hours as the Pro Shop.

PICNIC AREAS - Three designated picnic areas are available for reservations seven days a week.

PHOTO SHOP - The Photo Shop is available for use to all members of the "7 Stop Photo Club". Monthly dues are required in return for free use of the shop facilities five days a week.

TENNIS COURTS - Midway has four tennis courts. Used on a first-come-first-serve basis, with a one hour time limit if others are waiting to play. One court operates in daylight hours and the remaining three are lighted and available until 2200.

WOOD SHOP - Special Services operates a completely equipped wood working shop. Staffed with a qualified assistant, it is open Monday, Thursday, Friday, from 1800 to 2100 and on Saturday and Sunday from 1400 to 2100.

SPORTS PROGRAM - An extensive year-round sports program is operated by Special Services. For dates, schedules and tournaments, check with the Athletic Director at extension 391.

#

ENLISTED MESS OPEN: The EMO consists of four facilities:

EM CLUB - This club is open to Petty Officers E4 and Personnel E1 through E3. Hours of operation are: Monday through Thursday 1630-2330; Friday and Saturday 1630-0030.

ACEY-DEUCY CLUB - This club is for Petty Officers E5 and E6. Certain civilian personnel on the island are also authorized privileges at this club. Hours of operation: Monday through Thursday 1630-2330; Friday and Saturday 1630-0030.

KORNERSTONE KAFE - A short order type grill located behind the Navy Exchange complex. Open to all island residents. Hours of operation: Monday, Tuesday and Thursday 1000-2300; Wednesday 1600-2300; Friday and Saturday 1000-2330; Sunday 1100-2300.

IRONWOOD INN - A lobster and steak house also located behind the Navy Exchange complex and open to all island residents. An excellent place for that special occasion dinner. Hours of operation: Friday 1800-2100; Saturday 1800-2200; Sunday 1730-2130; Monday 1800-2100.

#

CREST & ANCHOR CLUB: The Crest & Anchor Club is open to senior enlisted personnel E7 and above and all officer personnel. Daily luncheon and dinner specials and a Sunday brunch are featured. Hours of operation: Lunch - Tuesday through Friday 1130-1300; Dinner - Tuesday through Sunday 1800-2000; Brunch - Sunday 0930-1300. Bar - Monday through Thursday 1630-2330; Friday, Saturday 1630-0230; Happy Hour - Friday 1630-1800. Check the monthly calendar of events for special entertainment, lunch and dinner specials.

#

CONSOLIDATED PACKAGE STORE: The CPS is open to any and all authorized patrons. Local regulations require one to be either 21 years of age or an E5 or above to purchase alcoholic beverages from the package store. A full selection of good wines and other beverages is always maintained. If you do not see what you would like, ask that it either

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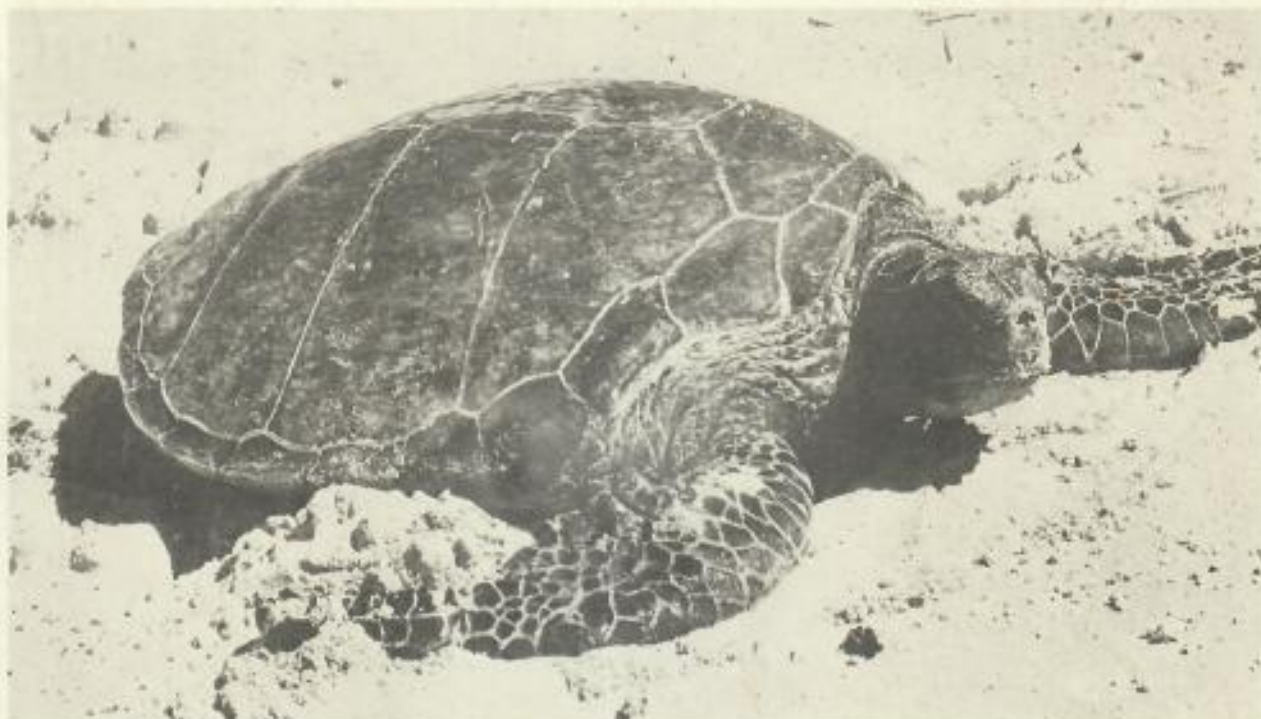
18-FOOT POWER BOATS - Two, 18-foot power boats are available for rental five days a week. They can be used inside or outside the reef. The boats are rented on a daily basis and are not available on Tuesday or Wednesday.

be stocked or special ordered for you. Hours of operation: Tuesday through Friday 1500-2000; Saturday 1100-1700. Closed Sunday and Monday.

#

MCRD TELEPHONE LISTINGS

| | |
|---|-------------|
| Acey-Deucy Club | 672 |
| Athletic Director | 391/392/393 |
| Boathouse | 660 |
| BOQ Office | 648 |
| Bowling Alley | 820 |
| Ceramic Shop | 2482 |
| Crest & Anchor Club - Office | 427 |
| - Bar | 527 |
| Enlisted Mess OPEN - Manager | 864 |
| - Accounting | 672 |
| - EM Club | 570 |
| - Acey-Deucy Club | 672 |
| Golf Course | 600 |
| Gymnasium | 834 |
| Hobby Shop | 845 |
| Kornerstone Kafe | 872 |
| MCRD Officer | 425/354 |
| Movie Theater | 898 |
| Package Store | 327 |
| Special Services Officer | 391/392/393 |
| Special Services Reservations | 391/392/393 |
| Wood Hobby Shop | 2382 |



U. S. FISH AND WILDLIFE SERVICE PHOTO

By Eugene Kridler

Common Name: Green Sea Turtle

Scientific Name: Chelonia sp.

Hawaiian Name: HONU

Distribution: Native (indigenous) to the Hawaiian Islands, as well as other tropical and subtropical ocean areas. Movements are not well understood. They appear to be migratory and have been recovered more than 1,500 miles from where they were tagged. Important feeding areas exist around the larger, inhabited Hawaiian Islands. This species formerly nested on the larger Hawaiian islands, however, the smaller northwestern islands of the Hawaiian Islands National Wildlife Refuge and Naval Station, Midway, probably support the last significant nesting green sea turtle population in the U. S.

Description: Green Sea Turtles grow to 42 inches or more in shell length. At maturity they weigh about 250 pounds. The largest recorded weight is 850 pounds. Each flipper has only one claw. The edges of the shell are fairly smooth. The tail of the males extends to the end of the hind flippers, while the tail of the females rarely extends to the end of the upper shell. Adult females have a steep sided upper shell. Juveniles vary in both color and shell contour. The common name refers to the color of the internal body fat.

Reproduction: Individual adult turtles return to sand beaches to lay eggs once every two to four years. Females lay eggs three to seven times at 13-day intervals from July to November. Each clutch contains about 100 white, leathery eggs, about the size of golf balls. The peak of hatching is in September and October. Hatchlings weigh one ounce and have black upper surfaces with white borders around each flipper. Hatchlings go to sea by sight.

Remarks: The primary food is marine plants. Growth is thought to be very slow. No methods are known for determining age. Destruction of nesting habitat, as well as over-harvesting have apparently caused the population decline. The total breeding population in the Hawaiian Islands is thought to be less than 1,200. IN THE STATE OF HAWAII THIS SPECIES IS PROTECTED BY STATE REGULATIONS AND CAN ONLY BE TAKEN WITH A STATE PERMIT. AT NAVAL STATION, MIDWAY ISLANDS, THE TAKING OF THIS SPECIES IS REGULATED BY CO NAVSTA MIDWAY INSTRUCTION.

MIDWAY EXPEDITION
5/25/77 - 6/7/77

12

- * Need diagrams/kits of tagging/measuring
- * Turtle slides for Gary

5/28
Saturday

Up at ~ 9 AM, to rummage/garage sale -
Breakfast at KK cafe with school
teacher - saw lens at Exchange
Series 1 70-210 #/85.00.

Check # on
STEF and
Amerson
numbers

TO Koral Kings -

Met Bob Weddington - Told me
of recovery made by ^{MR.} Ross
of tag # (113) and (114) covered with
lots of crud, tag on tight on flippers,
no inscription read Big size tags
but at two locations, as per
photos in plog book. possibly conspicuous
noted. This was a small turtle
~15 lbs taken off fuel pier ~3 weeks
ago.

High school boy reports that turtles/fish
seen feeding in current of Green Light

Concerning 113, 114

HDPG

- ① Check Amerson, POBS program
- ② KRIDLER numbers (TRIP REPORTS)
- ③ My early numbers (1113, 1114?)
- ④ Check loose notes for Midway PWS
- ⑤ T13 T14

113 Tag
36x35
9/12/66

old
Tagging copied from log

13

TAG NOS. Curved straight PL tail wt. date
1532-1533X 17 $\frac{1}{4}$ x 16 16 $\frac{1}{4}$ x 13 $\frac{1}{2}$ 12 $\frac{3}{4}$ 2 $\frac{7}{8}$ 24lbs 9/4/76
at 20' resting near spits - Harey/means

1534-1536X 19 $\frac{3}{4}$ x 17 $\frac{1}{2}$ 16 $\frac{1}{2}$ x 13 $\frac{1}{4}$ 13 $\frac{1}{4}$ 3 $\frac{1}{4}$ 27lbs 9/11/76
East of Eastern - PEKELDER

1537-1538X 19 $\frac{3}{4}$ x 17 $\frac{1}{2}$ 18 $\frac{1}{2}$ x 14 $\frac{1}{4}$ 15 $\frac{1}{2}$ 1 $\frac{1}{4}$ 36lbs 10/9/76
old tags (1478) - (1479) Fuel Pier - Harey/Kurishima

1539-1540X 21 $\frac{3}{4}$ x 19 $\frac{1}{2}$ 20 $\frac{1}{2}$ x 15 $\frac{3}{4}$ 17 $\frac{1}{2}$ 1 $\frac{1}{2}$ 45lbs 10/9/76
old tags (1474) (1475) Fuel Pier - Harey/Kurishima

1541-1542X 17 x 16 16 $\frac{1}{4}$ x 13 $\frac{3}{4}$ 14 1 $\frac{1}{4}$ 25lbs 4/23/77
Inner harbor - McFarland

1543-1544X 13 $\frac{1}{4}$ x 13 $\frac{3}{8}$ 14 $\frac{3}{8}$ x 11 $\frac{1}{4}$ 11 $\frac{1}{4}$ $\frac{3}{4}$ 18lbs 4/23/77
Inner harbor - McFarland

took back MONEL 1546-1547-1548
1553 - 1575 LEFT AT KK = 2118-2122
1576 - 1600 2128-2200
Bad - 1545 and 1549
2107

2108REFLX 15 $\frac{3}{4}$ x 14 14 $\frac{3}{4}$ x 11 $\frac{7}{8}$ 11 $\frac{3}{4}$ 2 $\frac{1}{8}$ 17lbs
2109LFL I caught behind Eastern on night
skin dive 5/28/77

Head width - 2 $\frac{1}{2}$ "

Some dark, some gold in shell, clean shell.

5/31/77
Tuesday Data taken at KK; released
from ramp (photo w/MAC) - Goldish
shell - lots of algal growth on head, shell,
limbs -

TAG NOS
2163 LFL

2164 RF $516\frac{7}{8} \times 135\frac{7}{8}$ C $18 \times 15\frac{7}{8}$

PL - $135\frac{7}{8}$

TAIL - 3"

head - 3"

Weight = 25 lbs (KK scale)

During late afternoon I bicycled out
to green light - on the way I
saw juvenile turtle feeding in
inner harbor, right side. At
southeast corner of island I saw
larger (~28") turtle come up to
beach and then go down.

Dinner at Cornerstone

6/1/77
Wednesday Two Scuba dives from KK1 with Ed
Pavlina. Saw turtle at ~30' by Buoy
12 coming out of shelter.
Also tried to jump on turtle from
boat by sheet range - saw my tag,
but this was larger than turtle
caught yesterday.

6/1/77 Dinner at Cunts. Ken had the KK turtle talk
 Wednesday announced on radio. Talk to Koral Kings
 at 7PM meeting. went well. Lots of questions
 from Commander Worth.

Curt mentioned that there are only a
 few places where they regularly see
 turtles; the rest are occasionally
 seen at many places throughout the
 lagoon.

Gary mentioned that in the past few
 days ~50 tropic birds have been
 killed on the beach in area 7. I
 recommended that he call Sekora.

- Note - Sightings on Cromwell

6/2/77 Unp ~ 8:30 - to KH to meet
 Thursday Ed and Suzzette - Noted fishing boat
 at Cargo pier - Taiwan Koral Boat -

NO. 2 HAI TIEN

Radio call XHJ

Honolulu Rep - YEI KAI FOU

HAI TIEN Company, Hou, Makung
 reported working 35°N 174°N

(Memo report sent
 to Iversen
 6/77)

6/2/77
Thursday

Masterford at class -
under ledge off KK ramp -

Tagnos

2165 LFLX S $18\frac{1}{4} \times 15\frac{5}{8}$ C $19\frac{3}{8} \times 17\frac{3}{4}$

2166 R^F PL - $14\frac{7}{8}$ TAIL - 3" head - $2\frac{3}{4}$ "
wt not taken definite gold shell, clean

SCUBA dive w/ Rawlins and Roger
Schmeltz (wife Elaine) off ramp -
algae and more grass sample collected.

Evening dinner at Rawlins - saw
Suzette's fairy tern collection.

6/3/77 up ~ 7 AM - Breakfast at EM mess -
Mike boat to Eastern w/ Schmeltz -
he will be here 18 more months -
new antennae to be constructed in
Area 7. Saw albatross. Walked
to back side for skin dive at
low tide - 11:30 AM.
Roger saw small turtle feeding - foss
on Podina. also mentioned

6/3/77 ^{Charlie} ~~that's~~ Hann will be taking one
Friday week off to go shark fishing off
Eastern Island.

Call to Lin on MARS

6 PM Dive by KK regulars in Inner Harbor,
normally restricted side.

Chris Bairdother ^{Box 14 FPO SF96614} caught small turtle,
then large adult turtle.

2167L x S - $35\frac{1}{2} \times 28\frac{5}{8}$ C - $38 \times 36\frac{1}{2}$

2168R

2169R

2170L

PL - $27\frac{7}{8}$

TAIL - $7\frac{3}{4}$ (♀)

head - $4\frac{3}{4}$

(clean) gold brown shell - large barnacles in skin,
photos - no copulation scars seen

6/3/77
FRIDAY

2171 LFL x S-19³/₄ x 16

C-20⁷/₈ x 19¹/₄

2172 R^F

PL-15⁷/₈ Tail-3¹/₂ head-3¹/₄

weight-43 lbs - (my scale/KK scale correct
to within 1 lb)

Rusted fish fork in shoulder ~~removed~~ -
removed - clean shell - darker
than others caught. | photos

6/4 ~9AM Scuba dive along ledge of inner Saturday harbor w/ KK advanced diving class.

one turtle caught in hole sleeping by Roger Schmeltz and _____
I helped a little.

↓

2173 X O $22\frac{1}{8}$ X $19\frac{1}{4}$ S $20\frac{5}{8}$ X 16

2174 PL - $16\frac{3}{4}$ (using both KK & my calipers)
(KK was probably using tape for plastron)
tail - $3\frac{3}{8}$ head - $3\frac{1}{8}$
43 lbs

1539
1540 O/D TAGS REMOVED

Injury on 1st & 2nd lateral right - and
centrals.

6/4
Saturday

2175 RX C $23\frac{5}{8} \times 21\frac{1}{4}$ S $22\frac{1}{2} \times 18$

2176 L PL $17\frac{3}{8}$ (deformed R posterior)

2177 L Tail - 5" head - $3\frac{1}{4}$ "
Weight - 60 lbs

[1482
1484]

OLD TAGS REMOVED

4th central - small shell injury
photo

[This turtle caught again on 6/5 Sunday
resting by piling of ~~fallen~~ pier - by Steve Loshk.]

6/4 Saturday Young seal noted on beach by local kids, 6
 Dinner party at Gary and Linda's - 5
 attempt to get on C-118 (4 engine prop) failed -
 got to bed about 3 AM -

6/5 SUNDAY Up at ~ 10 AM - breakfast at O club - went
 to flea market sale - went to KK for
 two SCUBA dives under fuel pier - cargo pier -
 Aunt caught deformed turtle - saw another
 small one - no turtles seen on second dive;
 later Steve Joesh caught 2175-657 by
 filing of cargo pier - also saw another larger one
 with tags.

2110RFLX C $17\frac{1}{2} \times 15\frac{1}{2}$ S $16\frac{3}{8} \times 13\frac{1}{4}$

2111^{LF} PL - $13\frac{5}{8}$

Tail - $2\frac{3}{8}$ " (poss. deformed) head - not taken

Weight - 24 lbs.

width measurements taken at 7th marginal due to
 double deformity due to possible shark(?) bite.

SUNDAY

8/29/76

Dove on coral head off steel retainer wall
NAVFAC - saw small turtle with hind
limb mostly missing. Dove in adjacent
apparent landing craft wreck. Bicycled to
NAVFAC (Naval Facility), past MRF.
Dove at second NAVFAC site further down from
dump.

Note: also from "Skin Diver's guide to Hawaii"
page 44 "Island of Molokai"

"There is no dive shop on this island but
there is a compressor, owned by Junior Rawlins.
To contact Jr., who often times is out diving
in these turtle-rich waters, contact his brother
Larry at the Chevron Station in Kaunafakai.
Best bet on this island is a boat dive,
weather permitting, to the fabulous North Shore."

8/30/76

Monday

0800 - 1530 TO Eastern Island - Some rain.
Walked about, looked at birds. Saw 3 Enterprise
Motor/Generators 1957 715hp each.

~1400

Caught turtle off South side of Eastern Island
in ~5 feet water resting/sleeping under ledge -
relatively shallow depression into coral head.

(Tagged 524 RFL; 1825 LFL
CURVED - 18 3/4" x 16 3/4"

30 MIDWAY

~~FRIDAY~~ 0800h

9/3/76 Rented Boat from Special Services
FRIDAY \$2.00 hour - Drove to East of Reef Hotel -
select places along exposed reef 'to
East, and to East of Eastern Island. -
No turtles seen, but photos taken
of parrot fish, White Terns, schools
of Manini, etc.
Collected ^{RED} A64 in cave in shallow water -
Photographed.

NOTE - BRADLEY/HOLMAN CAPTURE DATE ^{is} 4/21/76

SATURDAY
9/4/76 Breakfast at Consolidated Club -
to KK, talked with Gunt Harey and
Gary Means who had just returned with
captured small turtle in 20' water resting
on bottom near "ledge" (shark in area)
(Restricted area?)

DATA - Straight $16\frac{1}{4}'' \times 13\frac{1}{2}''$ ^{length} plastron - $12\frac{3}{4}''$
Curved $17\frac{1}{4}'' \times 16''$
tail from end of plastron - $2\frac{7}{8}''$

Weight 24 lbs (this includes canvas)
a check needs to be made on KK scale.

1532^{LF}

1533^{REFLAP}

release of boat ramp KK.

Midway Expedition 5/1/75 - 5/8/75 Project Proposal TO Midway, Office Naval Research 25

Saturday May 3, 75 "Mac" spent 2 weeks at Kure, reports more turtles than at Midway - CG take later RR at Kure^{NAVY} Friday - Monday.

Need - several "tagging" kits
Blk 5' w/ photos of proper tagging methods (in Plastic) -

Numbering on KK chart 100-113 through 800-813.
CG catching turtles at Midway? -
Midway Monthly range seawater temperature?

Turtles eating Portuguese man-o-war - many saw them
Security continually picks up ^{dead} birds -

Sunday May 4 Dove NAVFAC beach, more coral out by reef. Captured one flipper turtle (Right only) by Coral head

ON DATA sheet
Straight 16 1/8 x 13 1/2
Curved 17 1/4 x 16
Thick 6 1/2
Plastron L - 13
Weight - 21 1/4 lbs
Tail - 13 1/4" TAG - 1528^{RF}
Blackish photos

Tagged two later in day, 1 - some Blackish; 1 - gold w/ light tag was 1551^F; 1552^F at 1453; 1454^F

by Hives Caught 5 shore of Eastern w/ 5 others present (1 large). Tim Kurishima and ELE state they have never seen Codium at Midway. Surf board found from Hawaii

Jim Bradley neighbor Helicopter mechanic never seen large turtles while fishing outer reef - check with chopper pilots.

MONDAY

MAY 5, 75 At Comdr Lyle Branch - Found 20 dead at NAVFAC -
already ~ 1 wk old.

Fence behind CPO club - catches leaving
to fly.

Break new eggs along side runway -
over past year ~ 12 albatross incidents
oil Leak Present

Wild bloated turtle reported by Mr. Warren -

Looked for Short-tailed albatross -
visited at Koral Kings -

TUESDAY

MAY 6, 75

Dove off S. shore of Eastern Is. sighted 4
turtles, 2 with head in coral overhang, 2 head out -
Caught 2 in - Data on sheets →

1455^{RF}; 1458 — PL - 13 1/4" CL 17 3/4 x 16

Tail 1" - Gold color - Photo

1459^{RF}; 1460 PL 13 1/4 CL 17 1/8 x 15 3/4

Tail 1" Bk head, upper limbs - some gold on shell.

"all not comparable due to different measurement sites.

Dove off Reef Hotel - found glass float on reef
platform, abundant coral growth, many species
fish, also visited Spit Island -
trail of approx. 3 seal maximum.

MAY 7, 75

Wednesday

Dove at Eastern all day - Tagged 3 turtles -
Saw many others -

Turtle speared by civilian at NAVFAC
TAD - Temporary additional duty - person not
aware of wild life regulations:

By - Laws



Constitution & Commission

KORAL KINGS DIVING CLUB
OF MIDWAY

DATE _____

From:
To: Board of Directors, Koral Kings Diving Club of Midway
Subj: Membership; application for

1. It is requested that I be admitted as a member of the Koral Kings Diving Club of Midway.

a. Personal Data:

- (1) Department/Division _____
- (2) Work Address _____ Phone _____
- (3) Home Address _____ Phone _____
- (4) Projected Rotation Date _____
- (5) Experience: Snorkel _____ Yrs. Scuba _____ Yrs.
- (6) Scuba Course attended _____
- (7) Clubs joined _____

2. Applicants are reminded that the purpose of this club is to promote safety while engaged in snorkel and scuba diving.

3. I have read and understand the Constitution and By-Laws and safety regulations of the Koral Kings Diving Club of Midway as well as SOPAMIDWAYINST.1710.6 series and I agree to comply with these.

4. I agree to pay 20% down on purchase of equipment over \$50.00 and 20% of my unpaid balance each month with a minimum payment of \$15.00.

(signature)

Initiation Fee Paid: To _____ Date _____
Snorkel Qualified: By _____ Date _____
By-Laws: By _____ Date _____
Scuba Qualified: By _____ Date _____
Underwater Marine Life: By _____ Date _____
Care of Motor/Boats: By _____ Date _____
Compressor: By _____ Date _____
Physical: By _____ Date _____
Boat License: By _____ Number _____

15 December 1976

From: President, Koral Kings Diving Club of Midway Island
To: Members of Koral Kings Diving Club of Midway Island
Via: Commanding Officer, U.S. Naval Station, Midway Island

Subject: Koral Kings Diving Club of Midway, Constitution and By-Laws

Enclosure: (1) Koral Kings Diving Club's Constitution
(2) Koral Kings Diving Club's By-Laws

The Koral Kings Diving Club, Constitution and By-Laws, as contained in enclosures (1) and (2) are forwarded for approval and subsequent compliance. Additions, revocations and/or amendments to effective articles and rules will be in accordance with procedures prescribed in enclosure (2).

The purpose and objectives of the Koral Kings Constitution and By-Laws are to provide guidelines to club members, thereby assisting them in fulfilling their responsibilities to the club, and familiarizing them with authorized privileges available within the club.

Upon becoming effective, enclosures (1) and (2), shall supersede all Koral Kings previous Constitutions and By-Laws.

Curtis W. Haney
Curtis W. Haney

RST ENDORSEMENT

From: Commanding Officer, U.S. Naval Station, Midway Island
To: Members of Koral Kings Diving Club of Midway Island

Returned, approved/~~disapproved~~

D. H. Fischer
D. H. FISCHER

CONSTITUTION

PREAMBLE

The organization of the Koral Kings Diving Club of Midway shall be a voluntary association of members. As such, its efforts shall be directed toward promoting the interests of the sport known as "Snorkel and Scuba Diving". It shall be dedicated to the principles of physical fitness, safety, conservation, sportsmanship and to furthuring the knowledge of the marine enviroment.

In support of these aims, the club shall endeavor to provide the following program.

1. It shall provide a thourough and up-to-date training program designed to develop physical stamina and skill in swimming ability, including the use of snorkel and scuba gear.
2. It shall present lectures and movies on topics of interest to the members. (when available)
3. The club will operate the Koral Kings Dive Shop in order to provide access to the retail purchase of good quality diving equipment at reduced prices over the retail market. Also, it shall serve as a clearing house for diving information.

ARTICLE I: NAME

1. The organization shall be known as the Koral Kings Diving Club of Midway.

ARTICLE II: MEMBERSHIP

1. Regular membership in the club shall be open to military and civilian personnel and their dependents stationed aboard Midway.
 - a. Dependents whose active duty sponsor is not a member of Koral Kings Diving Club and wishes to apply for full membership must be over eighteen years of age or have their sponsor's written consent.
 - b. Dependents whose active duty sponsor is a member of Koral Kings Diving Club and are over sixteen years of age may apply for full membership.
 - c. Dependents who are under sixteen years of age will be classified as junior members of Koral Kings if the person is snorkel or scuba qualified and the sponsors written consent presented.

2. Honorary membership may be awarded to persons who make outstanding contributions to the Coral Kings Diving Club of Midway providing it is agreed upon by a quorum of the members present.

ARTICLE III: OFFICERS

1. The club shall be governed by a board of directors consisting of the following officers; President, Vice-President, Secretary, Treasurer, Safety and Conservation Officer.

BY-LAWS OF
KORAL KINGS DIVING CLUB
OF MIDWAY

PART I

ARTICLE I: DUTIES OF OFFICERS

1. The President shall preside at all Board and Club meetings. He shall appoint assistants and committees as he deems necessary for the discharge of his duties. He shall represent the club at all functions as required and shall be responsible for the public relations program.

2. The Vice-President shall take the place of the President in his absence and shall in every manner assist in the discharge of the Presidential duties.

3. The Treasurer/Purchasing Officer shall receive and dispense all club funds. He shall establish and maintain a checking account in the club's name. He shall permanently record all itemized receipts and expenditures and will cause a monthly report of the same to be published with the secretary's formal report. He will establish and maintain the Koral Kings Club and Dive Shop accounting and purchasing procedures in accordance with those procedures recommended by the Koral Kings Purchasing and Accounting Procedures Board Report. This report was forwarded to the President as part of the Executive Officers memorandum dated 22 January 1974. The treasurer will maintain a copy of the report as a permanent part of his records. He shall be responsible for all orders for equipment purchased by the club and will maintain all leases or rental agreements. He shall correspond with Naval Station Midway Islands Special Services Division, and sporting goods store where applicable, to secure favorable discounts for club purchases. He shall be responsible for the operation of the Koral Kings Dive Shop.

4. The Secretary shall record and publish the minutes of all official board and club meetings. He shall maintain and publish as necessary, a roster of regular and honorary members. He shall be responsible for the preparation of, mailing of, and receipt of, all formal club correspondence under the direction of the club president and shall also maintain a record of members participation in club scheduled activities.

5. The Safety Officer shall be a qualified scuba diver. He shall conduct training classes, with the emphasis on safety. He shall perform all duties normally associated with his office, and may appoint qualified assistants to aid him. In the absence of a qualified scuba diver, a snorkel qualified diver may be appointed by the Board of Directors for snorkel training only.

6. The Conservation Officer will enforce all game regulations. He will be responsible for the maintenance of the lobster and turtle logs and will assist in the tagging of turtles. He will maintain a liason with conservation authorities both on and off island and will appoint assistants as necessary to aid in the discharge of his duties.

ARTICLE II: ELECTIONS

1. Elections will be held during the first meeting in April and October.

2. Nominations of candidates shall be made from the current roster of regular members. Only personnel permanently aboard U.S. Naval Station Midway Island may hold elected office.

3. The officers shall be elected by a simple majority vote of the quorum.

4. The outgoing officers shall relinquish all property, accounts and records within one week of the election to the respective officers.

5. The new officers shall assume office immediately following the meeting at which they are elected.

ARTICLE III: VACANCIES AND RECALLS

1. In the event that an officer is recalled, transferred, or resigns, a quorum of members shall elect another regular member to fill the office until the next election of officers, except that, if the officer concerned is the President, the Vice-President shall be appointed and a new Vice-President elected.

2. Recall may be effected by a majority of the quorum.

ARTICLE IV: QUORUM OF MEMBERS

1. The members present at any given meeting will constitute a quorum.

2. A simple majority of the quorum shall constitute a vote.

PART II

ARTICLE I: PHASES OF DIVING QUALIFICATION

1. Diving qualifications are divided into two phases and are classified as follows:

a. The first phase is known as "Snorkel Diver". Upon acceptance of the application for membership the applicant is required to;

(1) Meet the minimum swimming requirements as set by the Safety Officer as prescribed by the National Diving Association.

(2) Abide by the Constitution and By-Laws of the Koral Kings Diving Club of Midway Island.

3. Be physically fit. Examination by a station doctor is mandatory.

b. The second phase is known as "Scuba Diver". To qualify for Scuba, the snorkel diver must:

1. Be physically fit. Examination by a station doctor is mandatory.

2. Know and abide by the mandatory safety rules for scuba diving.

3. Meet scuba qualifications and show proof of satisfactory completion of an approved training course.

4. Make a check out dive satisfactory to the Safety Officer.

ARTICLE II: QUALIFICATION FOR MEMBERSHIP

1. Application for membership in the club shall be made to the Board of Directors of the club. The applicant shall agree to abide by the constitution and by-laws of the Koral Kings Diving Club of Midway Island.

2. In the event of denial of membership, the club president shall inform the applicant in writing of the decision and reason for denial.

3. Membership shall be continuous, dependent upon continued adherence to the constitution, by-laws and prompt payment of dues.

4. A regular member may be dropped from the club roll by the approval of the Board of Directors if he fails to attend at least one regular meeting in one calendar month, with the exception of an excused absence. Dependents attendance does NOT FULFILL the requirement for the regular member to attend at least one meeting per calendar month.

5. The responsibilities of membership in the club shall include participation by all members in the club working parties, clean-ups and club sanctioned events oriented towards fund raising and/or community service.

ARTICLE III: CLUB DUES

1. An initiation fee of \$25.00 is levied against the sponsor when he has acquired regular membership. An additional membership initiation fee will not be levied against other family members. This includes first months dues.

2. Dues in the amount of \$4.00 per month for snorkel and \$6.00 per month for scuba shall be payable in advance at the first meeting of each month. Dues will not be charged against the sponsors spouse however each additional family member using club facilities will be charged dues of \$2.00 per month. Only regular members who are assessed full dues will be accorded voting privileges.

3. Any member two months in arrears shall be deemed inactive and shall be dropped from the club, except as excused by the Board of Directors. Members dropped are liable for full payment of dues through the month in which membership is terminated. Members will be notified in writing of termination of their membership with reasons therefore.

4. Members in good standing going off island on leave or TAD for a period of thirty (30) days or more will be exempt from paying dues for that period.

5. Members in good standing departing on PCS orders who return for a subsequent tour of duty will not be required to pay the initiation fee but must meet all other qualifications.

6. Members will not be charged dues for the last calendar month they are on the island.

ARTICLE IV: RESIGNATION

1. Any member may resign from the club at any time he wishes, but contributions are not refundable. Any member's resignation not submitted by the 15th of the month shall obligate the member to pay dues for that month. Resignations must be in writing and countersigned by any member of the Board of Directors to be valid. Members who wish to resign and desire later to rejoin Koral Kings will be treated as a new member and will be required to pay the initiation fee and meet all other qualifications for membership.

PART III

ARTICLE I: MEMBERS GUEST

1. Families of members and persons in training are not considered guests under this clause. No one guest may go in a Koral Kings boat more than once a calendar month. For any additional outings during that month the guest will be charged a fee of \$4.00.

2. People who are here for a short period of time (visitors or Leave) of thirty (30) days or less shall not be bound by 1 above.

3. No guest under the age of sixteen may go out in a Koral Kings boat unless accompanied by his parents or written parental consent is presented.

PART IV

ARTICLE I: POWER AND DUTIES OF COMMITTEES

1. A temporary committee may be appointed by any officer to aid and assist him in his duties.

PART V

ARTICLE I: FINANCES

1. There shall be a banking committee consisting of the President and Treasurer whose signature must appear on the banking registration card.

2. The signature of either the President or Treasurer will be sufficient to effect withdrawal of club funds up to \$300.00. For amounts in excess of \$300.00 the bank shall require the signature of the President and the Treasurer to effect any withdrawal of funds.

3. Upon any changes of the banking committee, a new signature card must be affected immediately.

TITLE II: EFFORE OF BOARD OF DIRECTORS AND REPORT OF TREASURER

1. The Board of Directors shall audit the books upon assuming office and publish their findings to the membership.

2. The treasurer, Board of Directors or a quorum of the membership may require audit at any time.

3. The command audit shall be held annually within three days of the 15th of July by Naval Station Midway. Also the club shall hold an audit of club equipment.

PART VI

TITLE I: AMENDMENTS

1. Amendments to the constitution, by-laws and training program or safety rules shall be approved by the Commanding Officer, U.S. Naval Station, Midway land before taking effect.

2. Amendments to the constitution and by-laws may be made by a two thirds majority of the members present.

3. All proposed changes to the Constitution and by-laws shall be presented at a meeting prior to being voted on.

4. Minutes of meetings and amendments will be made available to all members at the next meeting.

5. The Treasurer will give the status of funds at the first meeting of each month.

PART VII

TITLE I: CONTRIBUTIONS

1. Club members working for their own profit, "a non-club effort" and using club equipment will contribute 15 percent of net gain to the club.

2. Instructors using club facilities during classes will contract with the Board of Directors. A minimum fee of \$5.00 per student will be charged. These fees will be placed in a fund for a new compressor.

TITLE II: CLUB MEETINGS

1. Club meetings shall be held at least once a month at a specified time and place.

PART VIII

ARTICLE I: CLUB MANDATORY RULES

1. All boats must carry the proper amount of safety equipment when in use:
 - a. Medical kit
 - b. Tool kit
 - c. Four chemical emergency light markers
 - d. Oars
 - e. Adequate floatation gear for each person
 - f. A bailing device
 - g. Signal mirror
 - h. Two dye markers
2. Engine Procedures
 - a. Prior to getting underway the engine maintenance log will be consulted to ensure there are no known discrepancies with the engine intended for use.
 - b. All engines will be test run in test tank prior to mounting on boat.
 - c. All engines will be secured to the boat transom by a safety line or chain.
3. Upon filing a float plan check in and out with the station OOD and the tower as stated in boating instruction. Special dives such as night dives must be logged in and out with the OOD.
4. Whenever dependent members under the age of sixteen embark in club boats they must have at least one adult member with them.
5. For Koral Kings boats of 14 feet in length the following maximum load applies---4 passengers or snorkel divers or 3 scuba divers not to exceed 710 pounds.
6. All club members shall be required to hold a Special Services Boat license before operating club boats.
7. All diving in the inner harbor will be coordinated with the harbor operations. All harbor craft have the right of way over divers and Koral Kings boats.
8. When skeet/trap range is in operation, all boats and divers will maintain 1000 foot shore clearance, operating only seaward of black channel buoys.
9. The use of Koral Kings boats are prohibited by any member or guest under the influence of alcoholic beverages, inebriated or under the influence of drugs.
10. The consumption of any alcoholic beverage is prohibited in any Koral Kings boat at any time.
11. A CO2 and oral inflatable life vest/buoyancy compensator will be worn during all dives.

12. Charge air bottles to within ICC/DOT working limit as tamped on air bottle.

13. Leave the water if dangerous marine life is present and threatening.

14. No diving outside the reef is permitted without the consent of the Commanding Officer.

15. Make no dives requiring decompression stops as computed by the U.S. Navy Diving Tables. No decompression chambers are available on Midway.

16. Each buddy pair group will be equipped with at least one watch and one depth gauge. Scuba buddies will remain together at all times.

17. Weapons designed for underwater use will be used underwater only. They shall not be loaded, cocked or aimed except underwater. Under no circumstances will any type weapon be used above water against any target underwater. This includes but is limited to guns, spears, pearguns and bang-sticks.

18. Bang sticks and similar weapons will be sold to adult members of Koral Kings only.

19. All such weapons described herein shall be stored in lockers located at Koral Kings clubhouse and will not be removed except for planned dives.

20. Boats may be reserved for weekends and holidays only. Reservations may only be made after the close of weekly meetings or if no meeting is held reservations may be made after 1800 on Wednesday of that week. No member is allowed to reserve a boat for more than half day or to be part of a reservation party for more than half a day.

21. The member reserving or using the boat is responsible for the clean and safe storage of the boat and all equipment utilized in its operation.

22. Radio operating procedures will be as stated in the Station operating instruction.

23. Violation of this article will be subject to punishment as stated in the provisions of Article II, of part VIII.

ARTICLE II: JUDICIAL PROCEEDINGS

1. Any violation of Koral Kings Diving Club of Midway Constitution by-Laws or procedural commitments and rulings will be reviewed by any three members of the executive committee with the prospective violator present.

2. If deemed appropriate by the executive committee representative after considering all facts, violator(s) may have their privileges as member of the Koral Kings Diving Club of Midway, revoked, suspended, fined or both, or receive a written or verbal reprimand for such violation.

3. If the violator(s) do/does not choose to abide by the decision of the executive committee representatives, the committee will present its findings and recommendations to a quorum of the club membership at which time the violator(s) will be able to present their side of the

issue. The violator(s) will be informed of the date and time of such hearing. Findings/Penalties shall then be awarded and approved by majority of those members present and shall be final.

ARTICLE III: PARTICIPATION IN SCHEDULED EVENTS

1. The Secretary who is a member of the Board of Directors shall maintain a record of member's participation in such scheduled activities and any member may be fined or dropped from the club by the approval of the Board of Directors if he fails to meet his responsibilities with regard to participation in these scheduled events.

ARTICLE IV: IMPROPER SECURING OF CLUB FACILITIES

1. Improper securing of the club house areas or misuse of club equipment will result in replacement of equipment lost or damaged.

PART IX

ARTICLE I: PENALTIES FOR FAILURE TO LOG OUT

1. Persons not properly logging out or in as stated in boating instruction and failing to make proper entry in club log book may receive a maximum of three weeks restriction from the use of club facilities and \$5.00 per person fine for the first offense. This includes log book entries that are unreadable or entered under the wrong date.

ARTICLE II: SAR LAUNCH

1. Actions of negligence causing a SAR launch may result in a governmental action and/or fine.

ARTICLE III: EXPULSION

1. Violations of club imposed punishment could result in immediate and permanent expulsion from club.

2. Club members who have been officially disciplined by the military for any action involving the club could result in immediate expulsion from the club.

ARTICLE IV: SUSPENSION

1. Fined or disciplined members are suspended from the use of club facilities until such punishment is executed.

SCUBA DIVING

1. General. Scuba diving on Midway Island is permitted to all qualified users of Self-contained Underwater Breathing Apparatus. The Koral Kings Diving Club, a recreational and social organization, functions as the Command's coordinator for scuba diving and ensures that safe practices and principles are established and adhered to in the engagement of this recreational activity.

2. Regulations. The following regulations will be adhered to prior to engaging in any scuba diving activities:

a. Personnel shall hold a certification for scuba diving and/or provide documented evidence of previous training in scuba through EOD, UDT, Navy Diving School, YM/WCA, NAUI, PADI, Red Cross Training or other nationally recognized clubs or organization of the same character. Evidence must be presented in the form of a current Training card, qualification card or service record entry.

b. Persons desiring to engage in scuba diving activities shall be an active member of the Koral Kings Diving Club of Midway. Koral Kings Diving Club is responsible to the Command for ensuring that safe and accepted standards and procedures are established and adhered to in all activities related to scuba diving.

c. Personnel who are visitors to Midway Island for 30 days or less and who have evidence of scuba certification will be granted diving privileges upon the approval of the Safety and Training Officer of the Koral Kings Diving Club.

d. Only scuba equipment that is commercially manufactured will be used.

e. A CO₂ and oral inflatable life vest/bouyancy compensator will be worn during all scuba dives.

f. The "Buddy System" will be employed at all times.

g. All recreational scuba diving is limited to those authorized areas within the Lagoon, except for occasional organized expeditions outside the Lagoon specifically authorized by the Commanding Officer.

h. All scuba dives will be limited in depth and time to ensure that only no-decompression dives are made. Lack of a decompression chamber on Midway precludes the making of decompression dives and also makes prompt medical treatment of decompression sickness or air embolism impossible.

SOPAMIDWAYINST 1710.6

1 December 1975

i. Under normal circumstances, personnel shall not fly or perform low or high pressure chamber runs within 24 hours following scuba diving. Under circumstances where an urgent operational requirement dictates, personnel may fly after 12 hours following scuba diving provided no symptoms of air embolism or decompression sickness develop and the subject is examined and authorized by a flight surgeon.

j. Only compressed air will be used in making recreational scuba dives. The use of Helium, Oxygen or other mixed gasses is expressly prohibited.

5. Action. To be eligible to train and/or dive with scuba or dive in pursuit of membership in the Koral Kings Diving Club an individual must meet the preliminary qualifications set forth in the adopted constitution, by-laws and training program of Koral Kings.

6. Any violator of the above regulations will be subject to disciplinary action and may be sufficient cause for termination of scuba diving privileges.

Enclosure (16)

1 July 1976

W

f. Restricted Areas: (see illustration #1 below)

- (1) All swimming areas are off limits to power boats. Swimming areas are marked by red buoys. They are the Officers, Enlisted, and Eastern Island swimming areas.
- (2) The areas on and around Spit Islands are restricted.
- (3) The areas south of Sand Island, from Frigate Point on the marine dump are restricted.
- (4) The areas south (behind) Eastern Island to Sand Spit are restricted.

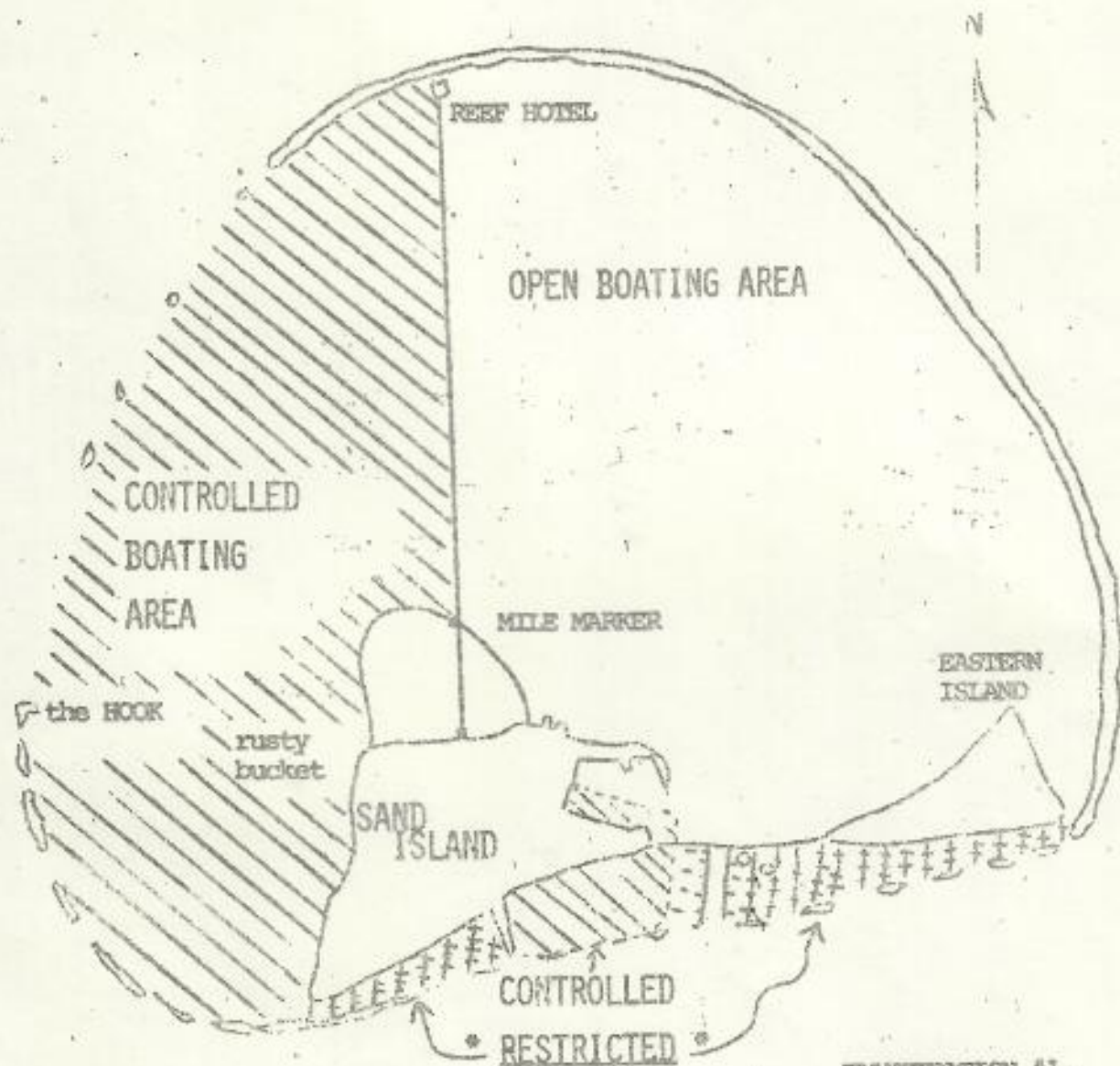


ILLUSTRATION #1

1-3

Enclosure (1)

KORAL KINGS DIVING CLUB OF MIDWAY ISLAND
MEDICAL HISTORY FORM

NAME _____ AGE _____ SEX _____
ADDRESS _____ DIVISION _____
PHONE NUMBER _____
HEIGHT _____ WEIGHT _____

The Physician:

This person is an applicant for training in diving with SCUBA. This is an activity which puts unusual stress on the individual in several ways. The diver must be free of cardiovascular and respiratory diseases. An absolute requirement is the ability of the middle ear and sinuses to equalize pressure. Any condition that risks the loss of consciousness should disqualify the applicant.

Physician's Impression

- _____ 1. APPROVAL (I find no defects which I consider incompatible with diving)
- _____ 2. CONDITIONAL APPROVAL (I find no condition which presents marked risks but I do not consider it in the persons best interests at this time.) Reason for conditional approval _____
- _____ 3. DISAPPROVAL (This applicant has defects which I consider in my opinion clearly constitute unacceptable hazards to health and safety in diving)

Date _____ Signature _____

| TAG NOS. | CURVED CARAPACE length | CURVED CARAPACE width | STRAIGHT CARAPACE length | STRAIGHT CARAPACE width | Plastron length | Tail length | weight | DATE Area | Remarks |
|----------|------------------------|-----------------------|--------------------------|-------------------------|-----------------|-------------|--------|------------|-------------------------------|
| 2916 | 16 1/8" | 15 3/8" | 15 1/2" | 13 3/8" | 13 3/8" | 1" | 23 lbs | CARGO PICK | 26 MAR 79 "SKI" |
| 113 | 22 1/8" | 19 7/8" | 21 3/8" | 16 1/2" | 18" | 1 3/4" | 52 lbs | eye pic | colls ready tagged with 11621 |
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attach to left front flipper close to body and turn end for end (see photo)-allow room for growth
 attach to right front flipper at central location and turn end for end (see photo)- allow room for growth
 to be taken only if calipers and scale are readily available
 measure from end of plastron to end of tail
 coloration, injuries, previously tagged turtle, etc.

check tags on
file at ^{kk} -
dates -

FEBRUARY 19, 1980

SCOTT GILLIAM
KORAL KINGS DIVE CLUB
BOX 300
SAN FRANCISCO CA
96614

3/4/78 - 2551 - 2575

8/1/78 - 2901 - 2925

apparently missing → (2901 - 2915?)

(173 - 174 - date? ^{ok}
w/kt) → 2173 & 2174 → see p 117 Book 1

Dear Mr Balazs,

I received your paper and letter and enjoyed your paper very much. I have included the information you requested as best I could with what was available. There are no tags to be found to this night explain the lack of entries in the log after Mar 79. I have been here since July 79 and haven't seen any tagging done. There are forms here that were used in the turtle program and many photographs and diagrams. With some tags and some instruction, a program could be reinstated easily. The dive club presently has approximately 50 members so we could accomplish quite a bit. We will look forward to your next visit and to the commencement of the program thereafter.

Sincerely,

Scott Gilliam
President, KORAL KINGS

KORAL KINGS
BOX 300
SAN FRANCISCO
96614

MIDWAY ISLANDS TURTLE TAGGING INFORMATION

G. H. Balazs
Hawaii Institute of Marine Biology

| TAG NOS. 1 | CURVED CARAPACE | | STRAIGHT CARAPACE ³ | | Plastron length ⁴ | Tail length ⁴ | weight ³ | Area | Date | Remarks |
|---------------|---------------------|---------|--------------------------------|---------|------------------------------|--------------------------|---------------------|---|----------------------|---------|
| | length ² | width | length | width | | | | | | |
| 2182 | 17" | 15" | 13 3/4" | 14" | 13 3/4 | 3" | 25 lbs | 29 JAN 78 | lesech | |
| 2184 | 21" | 19 1/4" | 17" | 17" | 3 1/2 | 1 1/2" | 45 lbs | 29 JAN 78 | ma SEU | |
| 2186 | 16 | 14 | 15 1/4 | 12 1/2 | 12.5 | .75 | 23 | 4 Feb 78 | Chris | |
| 2451 | 22 5/8 | 20 7/8 | 21 1/8 | 16 5/8 | 16 7/8 | 3 1/4 | 48 | 18 Feb 78 | Baby Rose | |
| 2452 | 16 7/8 | 15 3/8 | 16 | 13 1/4 | 13 3/8 | 3 3/8 | 24 | 18 Feb 78 | Chris | |
| 2456 | 17 | 16 | 16 | 13 3/4 | 12 5/8 | 3 3/8 | 21 | 19 Feb 78 | Baby Rose | |
| 2458 | 15 7/8 | 14 1/4 | 15 | 12 1/8 | 12 1/8 | 3 | 13.5 | 21 Feb 78 | Kam - Baby | |
| 2459 | 17 1/8 | 16 1/2 | 16 3/4 | 14 1/4 | 13 3/4 | 2 1/2 | 29 | 19 AUG 78 | WEDDING | |
| 2572 | 23" | 20" | 17 1/2" | 17" | 17 1/2" | 3" | 47 lb | 18 OCT. 1978 | HAGEE | |
| 2574 | 20 1/2" | 17 3/4" | 19" | 15" | 15 1/2 | 1" | 39 lb | 15 DEC 78 | NAVFAC ROAD BERQUI'S | |
| 2924 | 17 3/4" | 15 3/4" | 16 3/4" | 13 1/4" | 14 1/4" | 1 1/4" | 30 lbs | Right hind quarter has LARGE piece MISSING Right eye is poked out | FEMALE ROSE | |
| 2922 | 16 1/4" | 14 7/8" | 15 1/4" | 13 1/8" | 13 3/8 | 1" | 25/65 | 3 MAR 79 | FEMALE - SOUTHWARD | |
| 2920 | 17 3/8 | 16 1/8 | 16 1/4 | 13 3/4 | 14 1/4 | 7/8" | 28 | 8 MAR 79 | FEMALE ROSE | |
| 2918 | 17 3/4 | 16 7/8 | 16 1/2 | 14 5/8 | 14" | 1 1/8" | 27 | 14 MAR 79 | (FLUACC) | |

attach to left front flipper close to body and turn end for end (see photo)-allow room for growth
 attach to right front flipper at central location and turn end for end (see photo)-allow room for growth
 to be taken only if calipers and scale are readily available
 measure from end of plastron to end of tail
 coloration, injuries, (previously tagged turtles, etc.

HEADQUARTERS
FOURTEENTH NAVAL DISTRICT

BOX 110
FPO SAN FRANCISCO 96610

IN REPLY REFER TO:
48A:FWD:cdg
Ser 2679

17 NOV 1976

Mr. Howard Pennington
State of Hawaii
Marine Affairs Coordinator
P.O. Box 2840
Honolulu, Hawaii 96803

Dear Mr. Pennington:

Thank you for your letter of 29 September 1976 addressed to Pacific Division, Naval Facilities Engineering Command which informed the Navy of the appointment of Mr. George Balazs who will conduct a study of the Green Sea Turtle in Hawaiian waters.

Where feasible, we will assist Mr. Balazs in this worthwhile study. It is requested that future correspondence regarding Navy assistance with the project be addressed to Captain R. P. Nystedt, District Civil Engineer, Headquarters Fourteenth Naval District, Box 110, FPO San Francisco 96610.

We look forward to receiving information essential to the preservation and management of the Green Sea Turtle species.

Sincerely,

R. P. Nystedt
R. P. NYSTEDT
CAPTAIN, CEC, USN
DISTRICT CIVIL ENGINEER
BY DIRECTION OF THE COMMANDANT

This is to certify that G. BALAZS

286
Number



1/30/77
Date

Is Scuba Qualified and a Member in good standing

Carl Honey
President

Ray Merrin
Safety Officer



University of Hawaii at Manoa

Hawaii Institute of Marine Biology
P.O.Box 1346 • Coconut Island • Kaneohe, Hawaii 96744
Cable Address: UNIHAW

Commander
Third Fleet
Pearl Harbor, HI 96860

Dear Sir:

The purpose of this letter is to request permission to visit Midway during the period 1980 in conjunction with U. S. Coast Guard C-130 flights enroute to the Kure Loran Station. The personnel covered in this request include myself (SSN 564-54-0156) and Mr. Alan Kam (SSN 575-50-8518), my research assistant. The purpose of our trip would be to conduct ongoing investigations of green sea turtles (*Chelonia mydas*) in the Northwestern Hawaiian Islands. Since 1974 I have visited the Midway Naval Station on a number of occasions for this research. I currently hold the Federal Fish and Wildlife Threatened Species Research Permit PRT 2-3593. The required DD 398 clearance forms are on file with the Commander, Third Fleet at Pearl Harbor.

Thank you for your consideration of this matter.

Sincerely,

GEORGE H. BALAZS
Assistant Marine Biologist

Tel. 247-6631 or 946-2181

GHB:ec

UNIVERSITY OF HAWAII
Hawaii Institute of Marine Biology
Coconut Island • P. O. Box 1346 • Kaneohe, Hawaii 96744

September 2, 1980

Ensign Dara Daugherty
Wildlife Officer
U. S. Naval Station Midway
NAVFAC
FPO San Francisco 96614

Dear Ensign Daugherty:

As you may have heard, for some years now I have been conducting tagging investigations of green sea turtles (Chelonia mydas) throughout the Hawaiian Archipelago. In collaboration with the Koral Kings Diving Club, the study area of Midway has constituted an extremely important site for the tagging of juvenile turtles. During previous years, before stringent federal protection was granted to sea turtles under the Endangered Species Act, I regularly supplied tags to Koral Kings' members for use on turtles during recreational diving.

My last personal contact with members of Koral Kings was during March of this year, when I visited Midway for three days. During a recent short study visit via Coast Guard aircraft on August 26-28, I made inquiries about the status of Koral Kings and the future viability of the club considering the great reduction of Navy personnel that is supposed to take place during coming months. Unfortunately, I was not able to locate anyone affiliated with the club. Furthermore, a visit to the facility suggested that not much activity is currently taking place.

My reason for writing to you at this time is to ask for information about the membership and status of Koral Kings. Is the club still in existence, and if so, who are the officers? My contacts earlier this year included Scott Gilliam, Tim Hahn, Wade Lyle and Rick Solomon. Are any of these gentlemen still stationed at Midway? One of my principal concerns is the "Turtle Tagging Log" that has been located at the Koral Kings' facility. This book contains valuable scientific information therefore, if the club is to be dissolved, I want to be sure that these records are preserved for future use.

I am writing to you about this matter because of your position as Wildlife Officer. However, if it would be more appropriate, please feel free to pass on this request for information to the Commanding Officer.

Ensign Dara Daugherty
Wildlife Officer

September 2, 1980
Page 2

Thank you for your assistance.

Sincerely,

GEORGE H. BALAZS
Assistant Marine Biologist

GHB:ec

UNIVERSITY OF HAWAII
Hawaii Institute of Marine Biology
Coconut Island • P. O. Box 1346 • Kaneohe, Hawaii 96744

U. S. NAVAL AIR FACILITY
FLEET POST OFFICE
SAN FRANCISCO 96614

3 OCTOBER 80

George H. Balazs
Assistant Marine Biologist
University of Hawaii
Hawaii Institute of Marine Biology
Coconut Island P. O. Box 1346
Kaneohe, HI 96764

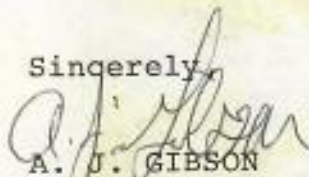
Dear Mr. Balazs,

I have found your "Turtle Tagging Log" as requested. It was still located at the Koral Kings Facility. The Club has no plans of dissolving, but the membership has decreased considerably. Rick Solomon is now Koral Kings President and he can be contacted at the following address:

Rm1 Rick Solomon
KORAL KINGS CLUB
NAF Box 300
FPO San Francisco 96614

I am sending your Log back for safe keeping, as items seem to disappear when personnel depart Midway. If in the future you wish information about Koral Kings, please contact Rick Solomon.

Sincerely,



A. J. GIBSON
Assistant Administrative Officer
NAF Box 2
FPO San Francisco CA 96614

Midway: Navy cleaning up

FROM PAGE ONE

1,500-acre atoll has similar praise for the Navy.

"Their diligent efforts to clean up such contaminants as PCB, DDT, lead paint, asbestos and fuel have removed a significant threat to Midway Atoll's fish and wildlife refuge," said Robert Smith, Pacific Islands Ecoregion manager for the U.S. Fish and Wildlife Service.

Midway, more than 1,200 miles from Honolulu, is the second most-distant speck of land in the Northwestern Hawaiian Islands.

It is home to perhaps 1.5 million Laysan albatross, or gooney birds, and varying numbers of sea birds, migratory land birds, Hawaiian monk seals and sea turtles.

The cleanup is scheduled to be completed by June 30. Hoffman guarantees it'll be done on time. The cost has been stupendous: \$42.8 million from the 1993 startup to closing.

Midway will still be crisscrossed with runways, with a big hangar alongside. Its harbor, designed for warships, will still be there, as will a few individual homes, some former Navy barracks that are being converted to hotel rooms, a small shopping and office complex, complete with bowling alley and theater, the mess hall, a number of decorative anchors and a statue of a giant goony bird.



Photographs by David Scull/The Honolulu Advertiser

A contractor to the U.S. Navy fills in the side of a metal seawall at Midway to make it more approachable for seals frequenting the atoll.

But lots will be gone.

■ The Navy removed 109 underground storage tanks in 1994 and another 16 in 1995, along with associated pipelines. Some of the tanks held more than 2 million gallons of fuel. And some had leaked.

The Navy is using a Fluid Injection Vacuum Extraction (FIVE) system to clean up fuel-contaminated ground in some

areas, injecting steam through a labyrinth of underground pipes, and pumping fuel and water back out of about 500 wells. The fuel is separated and much of it is reused to run the FIVE steam plant. In other fuel spill locations, the sandy soil is being dug up and removed.

■ Submarine cables, antenna guy wires and other material that won't leach toxins into the environment have been buried in a landfill. So has bulky waste, such as the dozens of buildings that have been destroyed.

■ Some landfill materials have been encased in concrete and reburied, with oversight by

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o after 60 years of occupation



the U.S. Environmental Protection Agency.

■ Transformers and other equipment containing or contaminated with toxic polychlorinated biphenyls (PCB) have been barged off the atoll. Range light batteries, full of lead, zinc, mercury and other hazardous materials, which have been dumped into the lagoon for decades, were hauled to the surface and barged away. The cost to bring a barge to and from Midway is roughly \$500,000, said Hoffman.

■ Many of the buildings on the island are more than 50 years old and many are coated with peeling lead-based paint. Navy contractors are scraping or sanding those buildings and capturing the loose paint for removal from Midway. It's of concern because albatross chicks sometimes peck at and swallow bits of material, including the paint, and can ingest toxic levels of lead.

Hoffman said most of the cleanup work is done. Crews are completing some building demolition, lead paint removal and the fuel spill cleanups in the final months before the Navy leaves.

Just four Navy personnel are left on Midway. Officer-in-

Charge Lt. Bill Shoemaker oversees some 200 employees of the base operations contractor, Piquini Management Corp, which runs the base and is han-

dling non-hazardous waste removal. OHM Remedial Services Corp. has about 30 workers on the atoll and handles most hazardous waste removal.

When they're gone, the total population is unlikely to exceed 300 people, including as many as 100 tourists at any one time. Most will be employees of Midway Phoenix Corp., which will run the tourism program and maintain its buildings, utilities and the airport and harbor.

The Fish and Wildlife Service expects to have a comparatively small cadre of professional wildlife managers and volunteers in place.

Midway getting thorough scrubbing

A female monk seal fends off a pesky albatross on a protected beach at Midway. A soon-to-be completed cleanup project by the U.S. Navy is expected to make the island safer for wildlife.



Photographs by David Scull/The Honolulu Advertiser

A group of albatross occupy a yard at Midway, where U.S. Navy crews are removing lead paint from buildings. Albatross and other birds peck at the paint, ingesting toxic chemicals.

Navy cleanup gives atoll back to wildlife

By Jan TenBruggencate
Advertiser Staff Writer

MIDWAY ATOLL, Northwestern Hawaiian Islands — Midway, one of the prettiest atolls in the Pacific, has been dangerous for wildlife for 60 or more years.

Nesting seabirds were injured running into antenna supports, fuel and chemicals seeped into the nearshore water; nestlings were poisoned by peeling lead-based paint; seals and turtles were trapped by debris on the shoreline.

When the U.S. Navy decided to close its Midway operation and to turn it over to the Fish and Wildlife Service, it needed to clean up its mess.

"A monumental cleanup effort," said Randall Hoffman, who oversees the cleanup as

Midway Base Conversion Manager for the Pacific Division of the Naval Facilities Engineering Command at Pearl Harbor.

But it's a cleanup that seems to be satisfying the agencies that oversee the wildlife of the islands.

"It's been a real pleasure working with the Navy. We were dubious when we started this thing, but they've been very cooperative," said John Naughton, Pacific Islands environmental coordinator with the National Marine Fisheries Service.

The Navy has responded appropriately to each environmental concern, and "I've been impressed," Naughton said.

The agency taking over the

See Midway, Page A8



An albatross and its chick share a rest spot with work crews removing lead paint from a Midway structure. Workers cut a hole in plastic covering the ground to avoid disturbing the albatross nest. As many as 1.5 million Laysan albatross, or gooney birds, occupy the atoll.

various products. He would also have to invalidate his pension

Midway: Tiny Pacific atoll

FROM PAGE ONE

pated island population. And quite a bit more.

"It's like a little city," said Atkins.

But it's still an old military base converted into a wildlife refuge, and its main goal is to introduce people to wildlife and history. Gautreaux said some folks, who expect an isolated luxury resort, won't find what they're looking for.

"We don't want people coming here and expecting something they're not going to get. Midway is never going to be a resort. It's never going to be a playground. It's never going to be Waikiki. It's a wildlife refuge.

"The whole concept is to make it something the critters like, and the people can come here and see them liking it," Gautreaux said.

And despite the company's stated approach, Gautreaux himself is somewhat surprised by the level of commitment to the wildlife he sees among visitors, particularly those who pay good money to simply come and do volunteer work that helps the wildlife.

"I didn't believe it, but there are people who actually pay money to come and pull weeds



David Scull/The Honolulu Advertiser

The crew of a sport fishing boat readies the rods in the early morning before taking a couple fishing off Midway Atoll. The fishing and scuba diving operations are subcontracted by the Phoenix Corp.

for a week," he said.

One pleasant surprise is a French restaurant, an alternative to meals in the mess hall or snacks at the All Hands Club. It's the Ironwood, run by Alain Sacasas and his wife, Laure Simoes, who are French. A single dinner price, \$30, gets you the dish that chef Sacasas is

cooking that night. Most accounts suggest it's always good.

Simoes provided a list of some of the items that show up regularly: Appetizers included scampi in Ironwood sauce, scallops with parsley cream, goose liver pate with onion jam, smoked salmon with horserad-

offers ecotours, rich history

ish sauce and snails with garlic butter. Entrees, which alternate between meat nights and fish nights, include beef tenderloin with peppercorn sauce, pork tenderloin with diable sauce, lasagne of fish with safrane sauce, and blackened ahi with Basquaise sauce; and desserts can be ice souffle Grand Marnier, crepes with hot chocolate, gratin of fresh fruits, apple tart or chocolate mousse.

Sacasas and Simoes will move their operation, now in a room next to the All Hands Club, to a new building on the sand of a spectacular northwest-facing beach when the structure's done. There will be a bar on the beach as well.

The restaurant is an unexpected bit of fine culture on an otherwise rugged island.

Atkins and Crozier said they feel Midway and Kauai can benefit from a little joint marketing, since Kauai has a more traditional, but still outdoorsy resort environment, and it's the place from which the Midway flights take off.

"It'll never be a big thing, since they're so limited (in numbers of tourists) out there, but I think we can do both of us some good," Crozier said.

What a visit to Midway costs

MIDWAY ATOLL, Northwestern Hawaiian Islands — Midway Phoenix Corp. has three subcontractors that provide activities for visitors.

■ The Oceanic Society provides natural history tours that allow people to participate in research on endangered species, protect wildlife habitat and do other restoration work during their vacations. Guided natural history tours, including airfare from Lihue, room and board — seven nights, \$2,250; four nights 1,750. Research expeditions, seven nights: dolphins, \$2,190; monk seals or seabirds, \$2,130; diving tours \$2,540. Call 800-326-7491.

■ Midway Sport Fishing provides deep-sea fishing for marlin, yellowfin tuna and other species aboard 38-foot Bertrams outside the reef and 22-foot Glacier Bay cats inside. Prices for seven nights, including airfare, room and board. Inside the lagoon \$4,000 to \$6,240 per person, depending on number of anglers. Outside the lagoon, \$4,000 to \$10,000. Call 770-254-8326.

■ Midway Dive-N-Snorkel gives diving tours and will certify you for scuba diving during a one-week stay if you're not already certified to dive with tanks. Dives are both inside and on the outer edge of the lagoon, depending on weather conditions. Prices exclusive of airfare, room and board: three-day snorkeling package \$250; five-day dive

package \$300; eight-day dive package \$650. Call 888-329-9559.

Visitors can also elect to not sign up for these activities and just be on their own, taking part in free Fish and Wildlife Service programs held regularly. If space is available, one-day diving and fishing charters can be arranged.

The airfare on Phoenix Air Group's Gulfstream G-1, which flies out of Lihue, is \$999. There's a kama'aina rate through Oct. 31 of \$699. The 1,100-mile flight takes about four hours, but headwinds or tailwinds can stretch that figure or contract it by an hour or so. Flights are now on Sundays and Wednesdays, but will be more frequent starting in July, when the Navy cleanup of the island is complete.

There are a couple of rooming options. Midway Phoenix has converted old military quarters into hotel units. Some are suites, with a living room, bedroom and bath. Others are single rooms that share a bathroom.

Room rates include meals, a cellular phone and a bicycle. Bravo units, for a single, are \$440 for four nights and \$770 for seven nights, and for two of you \$480 and \$840. The suites, called Charlie units, run \$924 for four nights and \$1,617 for seven nights for one person, and \$968 and \$1,694 for a couple.

Wildlife Service about Midway's role in World War II. The circular object in the foreground is a pillbox left over from the war.

Tiny atoll offers ecotours, rich history

2/16/87 A1 THA

By Jan TenBruggencate
Advertiser Staff Writer

MIDWAY ATOLL, Northwestern Hawaiian Islands — A tiny chunk of flat coral sand, so small that the main form of transportation is one-speed bicycles, hardly sounds like a tourism adventure.

"I have to admit, I thought I'd be bored. But even after three days, I wasn't," said Fred Atkins, who runs the Kilaheua tourism complex outside Lihue on Kauai.

Midway provides plenty of reason to slow down and relax, but a fascinating wartime history, stunning birdlife, outstanding deep-sea fishing, incomparable snorkel and scuba diving add up to plenty to fend off boredom.

"It was really a lot of fun," said Hollis Crozier, head of the Ameritech cellular communications firm on Kauai and chairman of the Kauai Economic Development Board. "I'm a history buff. Just imagining what those kids were thinking about

resort units) we can handle 100 to 105 people" at a time, said Mike Gautreaux, general island manager for Midway Phoenix. The number of tourists is limited to no more than 30 at a time until June 30, when it jumps to 100. That will be in addition to 125 to 150 employees of Midway Phoenix and its subcontractors, and perhaps a dozen or so employees and volunteers of the U.S. Fish and Wildlife Service.

Total atoll population: 250 to 300. And while the Navy is finishing up the removal of many of its buildings, communications towers, fuel tank fields and other facilities, there's still a lot being left: the airport and a huge hangar-office complex, the mess hall, a small shopping center, houses, harbor, water purification plant, power plant, bowling alley, gymnasium and the cavernous All Hands Club, a bar-snack-recreation complex that could probably handle several times the entire anti-

See Midway, Page A2



An aerial view of Midway Atoll shows Eastern Island in the foreground. For now, the atoll can handle only 30 visitors at a time.

out there in 1942 was really something. And seeing Eastern Island. That place really has a lot of mana (spiritual power)."

Midway Phoenix Corp. has a contract with the island's owner, the U.S. Fish and Wildlife Service, to run a low-impact, low-numbers history and ecotourism program.

"When we get done renovating (old military barracks into



Photographs by David Scull/The Honolulu Advertiser

A group of visitors and one interested albatross on Eastern Island out a history lesson from Ken Nighthammer of the U.S. Fish and

Date: Mon, 6 Oct 1997 22:27:26 -0400 (EDT)
From: LingKing@aol.com
To: HeadBroom@aol.com, Gary_Means@odedodea.edu,
gbalazs@honlab.nmfs.hawaii.edu, Hotvw1@aol.com,
KEN.WEIMAN@hqda.army.mil, MidwayIs@aol.com, mcfarland@net999.com,
RLDS@alaska.net, jadney@midland.com
Subject: Fwd: Vistiting Midway

Midway

~~MACZ~~

[The following text is in the "unknown-8bit" character set]
[Your display is set for the "US-ASCII" character set]
[Some characters may be displayed incorrectly]

I got this from Jason Mcilhaney and thought I would forward it to you all for your info.

Curt

Forwarded message:

Subj: Vistiting Midway
Date: 97-10-06 09:29:49 EDT
From: JCMTR250

To: mcilhaney_david@phdnswc.nswses.navy.mil
To: rpenguin@cdsnet.net, WOTTA TR
To: GORDNAD
To: rklight@bellatlantic.net (bobligh)
To: BULLBS, JCL@arinc.com
To: judyn@wmfilms.com, Bradboard
To: Tkwirth, Ling King
To: Skeeter @cpros.com
To: Leeman @silverlink.net

I sent this out last week, some mail was not delivered, so here it is again.
JM

10/3/97

Visiting Midway!

While vacationing on Kauai, we decided to go to Midway on a spur of the moment type of trip. My work schedule was in such a way that I could take the time off, not to mention that three people that I knew were going to be there at the same time, plus Lihue Airport-Kauai is the only departure spot to get to Midway.

The Plane, a gulf stream turbo prop, operates three times a week on Wednesday, Friday and Sunday, doing a turn around trip leaving Midway for Kauai at 7:30 am. then leaving Lihue at about 3:30 pm returning to Midway.

We left on Friday and arrived 4.5 hours later, just as the sun was setting. Greeted by Rob Shallenberger (Head of Fish & Wildlife) & Mike Gautreaux (head of Midway Phoenix Corp.-MPC) Checked in at the front desk (in the hanger) & were driven in a small tourist type bus to our quarters, Charlie barracks of the old BOQ. I couldnt believe it-- actual water from the tap you could drink & cable TV with HBO. We stayed in one of the suites, (quite nice). Later that evening we went to the Pavilion Beach pavilion. This is a

newly built enclosed pavilion, complete with fishballs, behind the area where the officers club used to be. Had drinks & sashimi, & mingled with other guests and residence.

Rode around on bicycles that we rented on a daily basis (3 modes of transportation available: walk, bike, or rent a electric golf cart). The place is still very recognizable from the 70s, just a few less buildings and a little earth moving. Most of the housing is gone with the exception of the OIC house, Commanders row & S housing, Bravo & Charlie Barracks & some barracks by the Galley. Any building from before the war was spared as historic sites (dilapidated as they are). The down town mall is still there & functioning. Buildings I recognized that were gone were: the school, church, J housing, CPO housing, Splinterville, Alpha Barracks, library, Hadily field, golf course, Koral Kings, the reef hotel and lots of others. These were all demolished to make room for the birds as this is a wildlife refuge. The building space is not needed with only about 350 people on the island. New buildings that I had never seen before are the scuba facility, fishing facility, & a new medical facility done in the 80s. They are also building a restaurant on the beach reminiscent of the Pan American clipper days of the 30s.

Our first morning on Midway we went to a mandatory meeting for new guests to explain the birds, monk seals, restricted areas etc. Eastern island is restricted, spit is restricted, & the beach at navfact is restricted (maybe all the way around area 7 to rusty bucket, depending on the monk seals.)

Fish & wildlife offer tours of the Island. Went on three while we were there, Area 7, a historic tour & a guided tour of eastern island (rode the old Mike Boat to get there). They have taken all the buildings off Eastern island and are working on getting rid of all the iron wood trees also.

Keeping only species that are endemic to the island. Also all the rats have been trapped & poisoned off of eastern, they are working on eradicating them on sand also.

All meals are in the Galley, prepared by Philipinos & Shirlankaians-the labor force of the Island. When you check in you get a meal ticket and you pay for three meals a day weather you eat them or not. You can also apply the tickets to eat at their French restaurant (we did not eat there so cant comment).

The movie theater is still there, saw a free movie (The Saint). We also went to the theater for some free historic movies on the battle, & movies on the Gooneys & sharks.

Went deep see fishing, my wife Marilyn caught a 30 lb. Wahoo (ono). We went to the OIC house for dinner the next day where Rob Shallenberger grilled the catch, boy was it good!

On following days we went diving, This is not cheep \$150 for a 2 tank dive outside the reef. We dove with sharks on every dive, saw some manta & eagle rays, turtles, dolphins & other rare Hawaiian reef fish. I would caution anyone that is going there strictly for diving. The main dive boat was out of the water for repairs when we were there, also Isana divers from Maui, just took over the operation from somebody else and is just getting started in this venture. The contracts are written so that the only way to go diving is to go on the boat dives. No rental of equipment for beach dives or having somebody from midway phoenix or fish & wild life take you out (if you had a friend on the island) -- this is the only game in town.

One of the other diversions while there was to help Ian (Mac) McFarland

re-locate that old corsair he found in the 70s . Well, the first strike against finding it was some of the land markings had been torn down, ie: the Aircraft tower. Also the swell picked up & visibility was down plus MPC would not let me dive with him (contractual agreements). The day after Mac left , the water cleared up & we decided to pay the bucks and go look for it. Marilyn and I, along with Ken & Linda Bails (they run a dive operation out of Kauai called Bubbles Below, a quality dive operation I highly recommend) set out using information I got from Mac & what I could remember all those years ago. We did a drift dive with a search pattern & found the propeller and engine of the plane in 100 of water on the first dive.

Couldnt find the fuselage or the wings on the second dive. Unfortunately for Marilyn & I, it was our last day before flying so that was our last dive (I just knew we could find the rest of the plane given one more dive). The next day Ken & Linda went out & found the rest of it in about 114 of water, upside down & broken away from where it used to be -- Island heros for MPC.

An evening of Bowling & an evening at the all hands club playing shuffle board and ping pong made for a pretty good time also.

It was a real different vacation. Very relaxing & a great staff at MPC to take care of your needs. Definitely not a cheep vacation . As a former resident, one week was plenty of time to be there. If you are a biologist or an avid bird watcher you might want to stay longer. Its funny, I learned more about the birds & the battle in one week than the 3 years I lived there.

If you are going you must have a Passport or Birth Certificate. Also you can only bring 40 lbs. baggage plus 15 lbs. carry on.

If you are interested in going call:

888-574-9000 or 808-245-4718
Ask for Greg Gardener or Bill Bertrand
or write:

Midway Atoll
P.O. Box 3028
Lihue, HI 96766

Enjoy,

Jason McIlhaney

Midway prepares for invasion of tourists

Federal officials, private company join forces to entice travelers with natural wonders and historical mystique.

By SUSAN ESSOYAN
SPECIAL TO THE TIMES

HONOLULU—Isolated Midway Atoll, site of a key World War II battle and now a nursery for monk seals and countless seabirds, will open to tourism next month for the first time in 50 years.

The move is the boldest public-private partnership ever undertaken by the U.S. Fish and Wildlife Service, which manages the national refuge 1,250 miles northwest of Honolulu.

Rather than abandon Midway when the Navy pulls out next June, the cash-strapped wildlife

taking responsibility for all of the atoll's infrastructure, from its valuable airport to its harbor, roads, sewers, telephones and electricity. The annual bill for running Midway, footed by the Navy until now, runs close to \$5 million.

"We could not do it on our own in these lean budget times," said Ken McDermond, who manages the Pacific/Remote Islands National Wildlife Refuge Complex for the wildlife service. "We feel the trade-off of letting people be there is well worth the benefits in terms of wildlife management and public education."

Midway's population will actually be reduced once the public starts to visit. No more than 250 people, including support staff, will be allowed on the atoll at one time. Currently 400 people, mostly Navy contractors, live there—down from a peak of 3,000 during the Cold War. Most



U.S. Fish and Wildlife Service

Birds surround an old cannon on Midway Atoll, one of a number of attractions linked to the area's celebrated military history.

service hooked up with a private company. The lure for Midway Phoenix Corp. of Cartersville, Ga., is the opportunity to bring tourists to the atoll, the remains of an ancient volcano midway between Japan and California.



Along with its military mystique—the Battle of Midway turned the tide of the war in the Pacific—the atoll offers people a chance to escape from civilization. Two million seabirds spend time on its three islets, endangered Hawaiian monk seals pull up on its powdery white beaches and colorful fish ply its protected waters.

In return for the privilege of bringing in tourists and sport fishermen, Midway Phoenix is

beaches, now open, will be closed in deference to the seals. Visitors' movements will be restricted and divers must be accompanied by guides. Sport fishermen will tag and release their catch.

"We're all taking a little bit of risk—not knowing if this is going to work," McDermond acknowledged.

For Midway Phoenix Corp., the stakes are high. Along with Midway's overhead, there are the hefty costs of bringing it up to snuff for the traveling public. For starters, the company has spent \$380,000 installing a cellular/satellite phone system. It is converting officers' quarters to hotel rooms, and will build a septic facility.

"This will lose money like a sieve for the near term, but you have to look at the long term," said Dent Thompson, vice president of the company. "For Midway Phoenix Corp., it's a great business opportunity."

He and his brother Mark, the company's president, got interested in the project because their other company, Phoenix Air Group Inc.—a major defense aviation contractor—uses the

airport and wants to keep it open after the Midway Naval Air Facility closes.

"We see it as a win-win situation for everybody," Dent Thompson said. "The airport will be there should there be a military need for it. The Fish and Wildlife Service gets to operate the refuge with full support services. It will be open for public visitation for the first time and not require one U.S. tax dollar."

There is no denying Midway's allure for the ecologically inclined. A pod of spinner dolphins plays in Midway's lagoon, and green sea turtles frequent the area.

At times, albatross nests are so ubiquitous that visitors must wend their way among them. The birds have no fear of humans, offering a rare chance to witness their natural behavior. Dubbed the "gooney bird" for its comical antics, the Laysan albatross practices a complex and fascinating mating dance before choosing a life partner.

"This is an amazing opportunity to visit a unique wildlife

habitat for a number of endangered species," said Birgit Wining, executive director of Oceanic Society Expeditions. "In many ways it is like the Galapagos Islands."

The San Francisco-based non-profit organization will be handling ecotourism operations for Midway Phoenix, offering guided natural and military history tours, as well as volunteer research expeditions. Visitors may work alongside biologists, planting native vegetation, counting and banding seabirds or listening to the dolphins.

The Fish and Wildlife Service was reluctant to abandon Midway and let nature take its course because the atoll's ecology has been disturbed by humans and is very vulnerable. Introduced rats prey on seabird eggs and young chicks, and non-native vegetation threatens nesting grounds. With revenues from public visits and volunteer labor, the hope is that federal workers can eradicate such pests and expand their "Head Start" program for seal pups.

Midway opens for tourism in August

Advertiser Staff and News Services

Historic Midway, the tiny Pacific atoll known for the decisive World War II naval battle fought against Japan in June 1942, will open for tourism in August.

The Navy is cleaning up the atoll and is scheduled to leave permanently on June 30, 1997. Officers' quarters will be remade into hotel suites.

The first visitors to the atoll, 1,200 miles northwest of Hawaii, will be a TV crew filming a fishing expedition in the National Fish and Wildlife Refuge there, says Dent Thompson of Midway Phoenix Corp.

"We will be going Aug. 4 out of Lihue, with two flights a week on a Gulfstream G-1/159, a



Greg Iyer/The Honolulu Advertiser

19-passenger turboprop," he said, describing the trip as four hours each way.

The company will fly visitors in and operate the atoll's public facilities and is contracting with tour companies to keep visitors busy.

Hughes for saltwater fly-fishing. The company, which will have two specially outfitted Bertram fishing boats for outside the lagoon and two Glacier Bay tri-hulls for inside the lagoon, will offer one-week trips with six days of fishing: \$6,500 per person, double occupancy, including airfare from Hawaii, lodging and meals. Information may be obtained by calling 770-254-8826.

Oceanic Society Expeditions will highlight Midway's rare wildlife in ecology tours and will offer military history tours, too. Prices per person, double occupancy: \$550 for four days, \$750 for five days and \$1,250 for eight days (includes lodging, guiding and meals). Information, 415-

See Midway, Page A2

Midway: WWII battle site awaits tourists

FROM PAGE ONE

441-1106.

Honolulu's Larry Millwood, of Midway Dive and Snorkel, was on Midway yesterday to help take delivery of a complete diving operation, including state-of-the-art compressors, 50 complete underwater breathing outfits and other gear, Thompson said. Details of dive tour costs were not available.

The cost of the round-trip air ticket alone will be \$1,000, and rooms for two, with meals included, will probably run about \$150. Prices are expected to drop somewhat as the business grows a year from now, Thompson said.

The barge containing the first load of equipment — more than

6/14/96 THA AZ
51 tractor-trailers full — arrived at Midway yesterday, he said.

Among the gear is a complete satellite-based cellular telephone system, which will have an 808 area code, so it will be a neighbor island call for Hawaii residents.

Ken McDermond, refuge manager for the Fish and Wildlife Service's Pacific Remote Islands Complex, said Midway Phoenix, based in Cartersville, Ga., will be allowed to have as many as 30 visitors on the island at a time through mid-1997. Then the number jumps to 100.

The decision to put a tourist operation on Midway was made after an assessment by the Fish and Wildlife Service of its options for the island once the Navy left. The agency determined that without such an

operation, it would not have the money to protect the seabirds, seals, turtles and other marine life of the atoll adequately.

Letting a contractor operate virtually all the facilities on a wildlife refuge is unprecedented within the Fish and Wildlife Service, McDermond said. The more common contractor's role is that of concessions, as at the Volcano House within Hawaii Volcanoes National Park, or a canoe rental operation within a wetland area.

"We have nothing like this scale anywhere else. This is cutting edge. We are creating the rules as we go," McDermond said.

Advertiser Science Writer Jan TenBruggencate and USA Today contributed to this report.