

# ANNEX A

## RESEARCH AND DEVELOPMENT PROJECTS

ELK HUNT I	1 June 1964 to 19 August 64	Ft. Greely, AK	80 days
ECHO & Echo	28 Sep 64      9 Dec 64	A Phoenix & Line Is; B Marshall & Gilbert Is	72 days
High Low	4 Jan 65 to 5 Mar 65	San Diego & Long Beach	60 days
MAGIC SWORD	26 Apr 65 to 14 Hune 65	Naker Is. Phoenix Is.	49 Days
ELK HUNT II DIVEL HOLE I	21 Jun 65 to 10 Sep. 65	Ft. Greely, Ak	80 days
Sun Down Swamp Oak	3 Feb 66 to 11 Mar 66	Ft. Greely, A	32 days
Yellow Leaf Tall Timber Pine Ridge	20 Mar 66 14 Jun 66	Big Island, HI	86 days
??????	28 Apr 69 to 9 May 69	Vieques Is. Puerto Rico	11 days
Foggy Cloud II	28-Sep 70 to 23 Oct 70	Arcata, CA	25 days

## SHIPS I"VE SAILED ON

U.S.S. Mitchell	Oakland, CA to Inchon, Korea	21 days
U.S.S. Lipan	Pearl Harbor to Phoenix & Line Islands	72 days
U.S.S. Wexford County	San Deigo	5 days
U.S.S. Okanogan	Long Beach, Ca	5 days
U.S.S. Fechtler	Long Beach, Ca	5 days
U.S.S. Berkley	San Diegom Ca	5 days
U.S.S. George Eastman	Pearl Harbor to Baker Is. (Phoenix Is.	49 days
Shellback U.S.S. Lipzan	ATF-85 South of Baker Is. to Pago Pago	
	American Somoa	
Golden Shellback U.S.S. Geo. Eastman	YAG-40 Int'l Dateline & equator	

## 20 ARMY YEARS/ 7 Naval Ships

How strange, how diverse what is so of a yarn sd unheard of that a 20 year Army veteran, (Ground pounder) do in the U.S. Navy?

Well this story took place within a 30 months span, with large sporadic interruptions. In some instances this saga can reach the limits of human endurances! In a 30 month time span the Army G.I. went from a POLLYWAG to a SHELLBACK and 7 months later aboard a different ship became a GOLDEN SHELLBACK. In all I've been to sea on 7 Naval ships. I dare say I racked up boards more ships than most 20 year Naval veterans. I also possess, both SHELLBACK & GOLDEN SHELLBACK certificates. Few 20 year Naval Veterans can claim both certificates.

My first voyage took me from Oakland Army Terminal in Calif. to Inchong, Korea. A journey that should take 12 days, but took 21 days to complete. The ship the U.S.S. Mitchell an (APA) or troop transport. A vintage vessel of World War II and Korean War. We sailed under the Golden Gate Bridge, for a beautiful cruise to Hawaii. We were told each G.I. could have several hours in Paradise or in Japan. I figured Hawaii was a near by state and chance we good in my life time I could get back here.

Two days after departing Pearl Harbor a swabbie came down with appendices. In January 1963 the PBYS or flying boats. The Catalinas of WWII were in warehouse surplus stores. The helicopter of the day didn't have the range to complete the mission. So the Mitchell made a U-Turn and sailed back to Pearl.

James

Within a day to two the ocean got rough. The Navy closed the (X) hatches. Sailing into a typhoon with 40 foot swells. Had the pitch and roll. I believe for 3 days we sailed at reduced speed. I was in the fantail. Right above the propellers. I certainly could feel the expansion joints going to work.

The bow would raise out of the water and slam down hard into a wave. The entire ship seemed to vibrate. The Navy closed the (Y) hatches during the worst part, y rael on the deck of 5 vehicle racks. G.I. were sick at the gills all over the ship. In our head (toilet) I got sick. Now I was trying to crap on one stool and heave up on the adjacent stool. It didn't work out that way. Some navy personnel told us Army G.I. the ship should have capsized and sank/ I guess we have ballast and enough bilge to stay afloat. The shaking of the ship was hitting an ice burg, the water it was that hard./

What a quadfecta of unusual events. First a medical emergency, then a fire and then the typhoon. Plus crossing the International Dateline we lost an entire day. How spooky?? On a Tuesday 2:50 PM we crossed the Dateline; an instant later the time was 2:50 P.M. Wednesday. An entire day vanished!!

Soon after setting sail. us Army troops were given a choice of a few hours in Hawaii or in Japan. Hawaii was now a state. I probably would get a chance to visit Hawaii on my own. But Japan was a far off country., So I chose Japan.

If you think NO INSURANCE!! You don't comprehend the oriental (Banana Eyed Bastards) minds. On the gangplank at Yokohama, Japan I listened to senior sergeant tell some young G.I. the facts of life.

7 ship in 30 months

The senior sergeant told the young troops. If you hire a cab, and it's in an accident. You are the reason! If you hadn't rented that cab, he would not have an accident. So you get out of the cab and run as fast and as far as you can. Because you will be required to pay the cost of vehicles repairs or new cab. All medical bills and lost wages for starters!! Since I had no YEN The Japanese currency/ I wasn't about to hire a taxi cab.

Instead I saw a base bus coming., so I hopped the bus.

In short order the bus stopped at the base enlisted club.. This was my first introduction to military club system.. It served food and drinks.. Behind the bar was a T.V. set tuned to AFN ( ARMED Forces Network Radio and TV.) Showing was Annie Oakley an American cow girl spewing Japanese.

The next morning I was awoken by the anchors being dropped in Inchong, harbor. In fact there was no dock pier visible, wharf visible. The only thing I saw was antiqued train. I saw steam locomotives as a child. But this giant resembled a Dragon.. It was spitting fire from a half dozen location on the engine.

Us Army G.I.s grabbed our duffel bag and climbed down cargo nets and jacob's ladder to a LCVF ( Landing Craft vehicular and personnel). For the 150 yard trip to the train.

Heading North our first stop was the country's capital Seoul Then 20 miles North to Uijongbu (pronounced WE JAM BOO). Yes the home of the TV show MASH. And right out of the TV set we passed Camp Red Cloud and I Corps Headquarters.

My destination was I-Corps communication center, The 51st Signal Battalion A miles down the down the road.. In the bus driving through Uijongbu I saw plenty of young kids playing and old men pasans. No or few men between teens and age 50. Our entire command WEAS HOUSED IN QUENSETS HUTS.

At the Headquarters Company of the 51st Signal Battalion. we were given an orientation. The Captain told us we were located 15 miles from the DMZ or demilitarized zone. In range of North Korean Artillery. Therefore we should expect lot of field exercises.

IN the photo lab where I'd be working for the next year; when asked what my MOS was I told them 84C. I was almost laughed out of the photo lab. No one there could remember a photo request for motion picture services. Our mission was to support I Corps and its 2 divisions of 15,000 troops each division. Plus Medical and aviation battalions with photo request. In a minor role we also supported our Korean Army with I.D. Cards. Mostly we in the 51st photo did the lamination of the military I.D.s

7 ships in 30 months

Antecedent to the across the Pacific voyage, I had a transcontinental railway trip. From coast to coast by train. It began at Little Silver, New Jersey on Pennsylvania Central train to Chicago's Union Station. On this segment I rode in a passenger coach car.

In Chicago our train was delayed from a blizzard near Omaha, NE. We sat in 4 degrees temperatures all day long.. Finally after dark our Union Pacific train was ready to commence our Westward voyage. However I was in the Pullman car. A sleeper car with a bed all to myself.. Next morning I awoke to see snow on the prairie. The terrain was flat. not a rippler anywhere. The second day I woke to see snow on distance mountain ranges. The mountains might be 200 miles off in the distance.

One evening in Ogden, Utah. We stopped for a long time. several rail cars were being detached and put on a different train for Los Angeles, VIA of Southern Pacific railroad. The commotion too several hour

The final day on the train, I opened the pullman curtain at my bed to see the sign " BIGGEST LITTLE TOWN IN THE WORLD, RENO".

The foothills of the Sierra Nevada Mountains. Here I was a Army cameraman with out a camera. Not even a Kodak Brownie!!!! The azur sky, the bright white snow, bold rocks and green pine trees all made for a majesty scenery. The only record I have of this passage is myMEMORY@!!!

Then onto our final destination Oakland, Ca. There close by was the Oakland Army Terminal where I'd board the U.S.S. Mitchell. From the formation area one could see the Bay Bridge, Treasure Island and in the background sat the Golden Gate Bridge.

Arriving at San Francisco Airport in Feb, 1964 American had introduced military half fare tickets. A 50% discount for military. It was also a tumultuous era. The Jet planes had been in service for 8 years. But the new birds were fuel guzzlers. Airline imposed a fuel SUR-CHARGE, usually \$10.00 to \$15.00 per passenger. However 115 octane cost about \$3.00 a gallon the PJ-4 Jet fuel or basically kerosene cost \$.25 cent a gallon. Soon the airlines were money rich and discontinued the SUR-Charge! Other airline followed American Airline lead and provided half fare for military.

Reporting into the Army Pictorial Center in New York City, I had been here before. In Army photo school we took a day class to visit the home of "THE BIG PICTURE " T.V. series and every training film produced. The entire complex comprised 4 structures. The main stage, barracks, photo lab and a building for finance and film vaults. All Army motion picture taken any where in the world was sent here to the Pic Ctr for processing. So I knew the address by heart.

I was dismayed to learn us Army motion picture cameramen were scumbags. All the big production belonged to Camera Branch. The Pic Ctr had about 400 civil service employees and about 50 military I was stuck in the basement of the barracks under the dining room.

Field Photo only had 2 big projects going. dismantling a ATOMS FOR PEACE in Tully, Green; and and the other avalanche control in the National Parks using recoilless rifle munitions



7 ships in 30 months

The scumbag label became quite clear. In April and May of 1964 Field Photo was handed 2 ~~ma~~ior assignments. The 1st was General of the Army Douglas MacArthur's New York funeral. The 2nd was the Lipizzan Horse Show. donating one of their stallions to the U.S. Army, as a way of saying Thankyou for saving our breed of horse. At the end of World War II the stallions were behind Russian line. General Patton sent American troops to save their breed of horse.

For Fouglass MacArthur's funeral about 2,500 VIP invations were sent out. Among the delegates were Governors of NY, NJ and Conn. bankers, union leaders, United Nations delegations, New York City officialdom, including mayor, police commisioner and boss of fire departments. Along with T.V. and stage personalities. A real who's who of nightly news.

Field Photo was set up outside the armory to get the VIP limo arriving. The VIP getting out of the car and entering the structure. Camera Branch had set up a studio Mitchell Camera and flood laghts to lighten the open casket. The day of the viewing the sky was dull, foggy and damp. The supply sergeant told us living in the barracks to turn in the color film for faster Black & White film. It wasn't my fault. But; my name was on the camera slate. therefore the screw-up was my fault.

The Lipizzan Horse Show, Us Field Photo guys about 30 in all. We were handed 2 camera per man. We were told if one runs out of the 30 second spring wind motor; just pick up the 2nd camera and keep shooting. No retakes. This is a one time event. So 30 camera were scattered on the 2nd balcony around Madison Square Gardens. Each seat on the 2nd balcony cost \$35.00 each.

At half time intermission the event us cameramen came for began. The Austrian Rider dismounted and the American officer put his foot in the stirrup the horse shied away, from the unknown rider.. Figuring it would require 30 seconds or more; I hand wound the spring motor. So during this time to settle the horse down, the Army officer totally unceremoniously leaped onto the horses back and into the saddle. He leaped just like you see in a cowboy movie. I was able to catch about the last half of the leap. In the screening room it was an awful sight. 30 cameras and only one camera was rolling the entire sequence. However it was from the back side. The worse possible angle to get the action. I heard from the back of the room animation or special effects.

After a pair of major flops, I heard rumors of a project coming up in Alaska. I figued I couldn't do any worst than I had here in the city. So of all the outrageous thinking "I VOLUNTEERED. The scumbag label was appropriately given the term. Inconsistent Some good footage and when both ways some good and some rotten.

After 2 major diasters in New York. I heard of an up-coming project in Alaska. Not knowing anything of the job, I did the unheard of thing I VOLUNTEERED FOR THAT EVENT!!! I was lowman on the team. of 7 senior cameraman. I figured if i screwed up I had 6 other to cover my mistakes.

By hook or crook all six senior members of the photo team found cause to return to New York before the project ever started. Leaving me to SINK or SWIM by my self!!!

When text book writers need answers, they go to the expert in that field. Well i got a 2 hour ONE on ONE introduction by a PRO.

I was given tips, tricks, and short cut never given the text book.

7 ships in 30 months

I'd have to SINK or SWIM on my own. Nobody was there to cover for me. This - my first Deseret Test Center Project. I'd do 11 other in the coming years. Working with the Dugway Proving grounds people. I found my groove. I was totally alone. The project had few military. The test director was Harry H. Ledbetter, A few medics, a few meteorologist and me. The rest were Dugway Proving Ground civil service employees about 30 all toll.

An S/L 7 Ken Sly gave me the stay alive in a toxic zone orientation. But, it was Ross and Martin that I would go around..For nothing could proceed until the chemical munitions were armed and set in place. I firmly believe I was the first Army cameraman to film that action. Live out on the HOT GRID. Lets face it Us cameramen were sent here to film document the projects happenings. These camera teams that come for a few shots about once a week, know nothing of A SNOOT FULL or GETTING BIT!!! These became my second language!

I got so used to wearing the gas mask that I only went to the tear gas chamber to test the mask about once every week, but be out in the HOT GRID twice in a day. In 81 days in Alaska I might have been in the HOT GRID a 100 times. I returned to New York a new soldier.

Ever since arriving at the APC for Army Pictorial Center, I heard news cast tell of the World's Fair opening in New York. I didn't have the faintest idea what would consist of

World's Fair. I'd been to a state Fair consisting mainly of farm equipment, displays of live stocks, family pets, along with cooking, canning, sewing, working, and baking contest, and lots more. What a World's Fair had was probably wares from around the globe. Along with tourist from all over the planet!

An employee of APC or Army Pictorial Center was handing out free tickets to the World's Fair. What would an World's Fair have except wares from across the globe and whole wide tourist. I didn't know this individual handing out free tickets, but after returning from Alaska, he handed me a free pass.

Mass Transit whether bus or subway was .15¢ a ride. I had ridden about 100 miles on the subway out of over 300 miles of track. Many locations you could transfer from subway to bus with an pass. I'd been to Shea Stadium and the World's Fair was the same exit.

At the fair I was bewildered that some exhibits had a 2 hr. waiting time just to get in the door. In 90 degree heat, many had strollers and young children to look after. FINALLY IN DISCUSS I WAS LEAVING THE FAIR WHEN I happened upon the French Pavilion. I must have located the employee entrance. The door had windows. There on the 2nd tier behind a solid guard rail so no one could fall.. There stood the most beautiful woman I could ever hope to meet. Here was a working gal without an entourage of hair dresser, make-up limo driver and lots more, including security. I said to myself "IF ANY WAY POSSIBLE THAT'S THE WOMAN I WANT FOR MY WIFE." I guess my FAMILY COAT OF ARMS came into play. It states "HE GETS WHAT HE SEEKS.!!!!"

7 ships in 30 months

A employee of APC for Army Pictorial Center was handing out free passes to the 1964/65 World's Fair. I didn't know this individual, but after returning from Alaska, he handed me one.

Mass transit in New York was cheap. .15¢ for a bus or subway ride, with interchangeable from bus to subway. In certain stops you could switch route by walk across the subway platform. I rode over 100 miles of over 300 miles of track.. I had been to Shea Stadium several time. The World's Fair was at the same exit, so I knew how to get to the fair.

At the fair I was bewikdered by 90 degree temperatures. Some pavilions had up to 2 hours waiting lines just to get inside the doors. Many families had strollers and young children that were angry from now moving.

I had been to state fairs several times. There was mostly agriculture in nature. It had live stock and family pets. It had cooking, baking, canning, sewing, woodworking and other crafts. What a World Fair would hold was anyone guess. Probably ware of that nation on display, along with native dress. In total discuss I headed toward the subway station. On the way I spotted the French Pavillion. I must have located the employee entrance. The entry was just a door, with windows all over the door. Looking in on second tier, half obscured by a guard rail stood the most beautiful woman. Not a movie star with an entourage of hairdressers, make-up, chauffeur and security guards. Here was a working gal without any glory Maybe my Family Coat Of Arms was kicking in. It says "HE GETS WHAT HE SEEKS." I didn't know if she spoke English, was happily married, with kids. Divorces. I didn't even have a name. For all I knew she was the wife of the French Pavillion boss It didn't matter, "I blarred out "IF ANYWAY POSSIBLE, I WANT THIS WOMAN TO BE MY WIFE.. I would not forget this elegant female flesh would remain on my mind for 12 years. And still haunts my memory.

At Field Photo the bosses were looking for 2 volunteers for a 2 month DTC project.. Most of the guys asked were married with kids. I finally volunteered. This would be my second Deseret Test Center project. The major in charge of Field Photo set the supply sergeant to Teterboro N.J. airport to buy 2 24 volt aircraft batteries. They rented telephoto lens, got out of storage 24 volt camera motor, 400 foot film magazines. The batteries were charge and sulfuric acid. In Chicago Kit Kramer was notified that the batteries had been confiscated doing about \$5,000 dollars worth of damage to luggage and clothing or garments. Along the way Kramer and me were to have a meeting at DTC's Headquarters in Fort Douglas, Salt Lake City. There we were told that is was the 6th of an 8 part biological survey of the central Pacific from 10 degrees North to 10 degree South and 2 ships would be involved. A cameraman per ship.

Before leaving I got with the DTC film editor and asked what he knew of tropic sea birds. Well the City-Slicker barely knew a robin and maybe a woodpecker. But nothing of tropical sea birds.



7 ships in 30 months

Since the editor had no knowledge of tropical birds, I took it upon myself to write a 23 page summary of the islands. But that would come in due time.

As the Honolulu Airport the PLO (Pacific LIALSON Office (PLO) DTC had a office full-time in Pearl Harbor. The question was ~~why~~ could the PLO get the aircraft batteries here in Hawaii. And have Pearl charge the batteries up? Kit Kramer was to go downtown Honolulu to board the YAG-39. I WOULD TRAVEL INTO Pearl Harbor to board the U.S.S. Lipan ATF-85

The ocean going tug boat sat 3 abreast. With the Lipan out the furthest. Now I had to learn how to board a ship as a single person in civilian clothes? A few swabbies were working on the deck. I asked them, I was to salute the American Flag on the fantail, then salute the Officer Of the Day on deck. Well I had about 5 cases of camera gear plus my suitcase of civilian clothes. This first duty officer wanted to travel orders. I gladly showed him a copy. Then proceeded to the second ship and preformed the same ritual. Then onto the Lipan. My home for the next 2 months except when I was with the shore party on a island.

Getting settled below deck I was placed in a bottom rack of 5 bunks high. The camera gear was stored. From the minute I stepped aboard I heard nothing but bitchin about another BIRD CRUISE. These guys loved sitting in port getting a paycheck doing nothing.

I wondered what the Smithsonian Institute crew would look like. I imagined them to be beer belly old guys sitting on fold-up lawn chair with binoculars watching the birds fly by. However I feared that would be boring.. As a 20 year old guy I want boring photo material.

To start my summary I got with the Naval Chief who was the quartermaster and took sextant reading out at sea. From previous BIRD CRUISES, that the Lipan would use 100,000 gallons of fuel and travel 6,000 miles.

The shore party that showed up was headed by Fred C. Sibley. We had been on earlier trips. He brought 4 other college age kids. They were ornithologist. A biologist from the University of Hawaii and an entomologist. station at 6th Entomologist shop he collect bugs.

In last Sept. 64 the Lipan set sail, Departing Pearl heading due South. Nearly a week later we reached Howland Island in the Phoenix Island Group. Howland was the island that Amelia Earhart was supposed to land at, when she disappeared. The island stood about 20 feet above MSL ( Mean Sea Level) and had an non-operating lighthouse constructed..

The shore party was put ashore in 2 trips of a rubber raft and out board motor. A Navy First Class was the boatswain. A trip took roughly 20 minutes each way. The S.I. (for Smithsonian Institute) provided me with a 50 caliber machine gun ammo box. With the lid firmly attached it was a water proof case for camera, film and paper work..



7 ships in 30 months

Our meals were C-Rations. A Lister Bag for water. It had several spigots to fill canteens. I was provided a head lamp to use at night. However near the equator there was little dawn and dusk. The sun came straight up out of the east and set straight down for sunset. The sun rose 6:20 and set at 6:20. Not knowing a thing about what was happening, I became Fred Sibley's shadow. He was doing a NEST SURVEY. A different can of spray paint was used on each trip. This first Bobby nest had 5 different color paints. Telling us the nest was in constant useage.

At nights when I couldn't film any more, I'd see the SI group banding Sooty Terns. These small birds lived in colonies of 250,000 to 300,000 in an area of 1 to 2 acres.. The birds were so plentiful that you had to slide your feet. After several of the SI team working 14 hour days. I felt bad not helping the crew. Finally Fred Sibley gave me a pair of pliers and a 100 string of bands. S.I. had brought size 5 to size 8 bands with size 7 having an A and B size. For Sooty Terns I was given size 5 bands.. I had seen how Fred banded the Blue Footed Booby during the NEST SURVEY. These Sooty Terns were like sparrows. Just reach down and grab a tern.. I might have forgotten but I think the band was attached to the right leg.!

Then I saw Tropic Birds. Both variations were here. The White tailed and Red Tailed Tropic Birds. Both species had 2 long tail features. Otherwise the birds were white with a brown bill. The Tropic Birds made no nest. They layed a single egg on a fork of a branch.. The parent sat on the fork to keep the egg warm. Crude but they did it!!

Then too were the Fairy Terns. Beautiful little white birds that would fly about 2 feet off a person shoulder. Never landing. But just follow a person for nearly a hour at a time. The Fairy Tern had black feet, Bill and eyes. Just seeing them fly around the Azure sky was a delight. The S.I. party also did fish kills. using Fish Kem that drained the water of oxygen the dying fish floated to the surface. After 4 days on Howland we sailed to Baker.

The FISH KEM was to catch the tiny fish and eels protected by the coral reef. These fish was impossible to collect by any other method. Along the way sailing on the Lipan at the bow, I often seen flying fish and porpoises keeping abreast with the bow.

Baker Island to this day is an enigma. For some scant reason an air base was established on this island. A good 2,000 is from the closest Japanese held islands. However the evidence is present. A giant igneous rock stands on shore. Marking a deep water passage the UDT ( Underwater Demolition Team ) of the Navy did. So that fuel barges and supply ships could bring food, BX items and every day essentials.

In land, the steel interlocking steel mats used for runways and tarmacs is still visible. The Island had a 5,000 runway. However the aircraft of the era would never fly to Japanese territory and bombs target and return without refueling

7 ships in 30 months

The igneous rock had to be transported here. Because this island is coral and beach rock. This stone is lava formed. It stood about 20 feet high and 10 feet in diameter., marked the entry to the UDT blown deep water channel.

On all the island there were ACTIVITY COUNTS. This was basically to determine if the flock of birds were heading to sea for feeding, or returning to shore from feeding. Of course the time of day was noted.

For my 23 page summary all I've written in this story and more. It included the number of eggs at a nest. What a nestling, immature and different plumage of males and females.

On a few islands the S.I. team collected Whale vertebrae and other animals that washed up on the beach. On one island in the Line Island group I ventured off on my own right after getting shore. I headed to the west shore to the North. There I found a Japanese fishing net float. The good ones. Made of hand blown bottle thick green glass right on the fishing vessel and all the rope knots were firmly in place. In the 1960 the International Market place in Waikiki sold just such floats for \$25.00 each. I had the real McCoy. I was told that around 1962 the Japanese economized. Instead of 2 fires on a wooden vessel they did away with the glass blower's fire. Using plastic halves the ship's crew could glue the pair together and string the netting that saved a lot a lot of money for the fishing company.

Crossing the equator was an experience. For breakfast even though I was Army. I was served 2 Navy beans. I was considered a POLLYWAG. I would have to meet Davy Jones Locker and King Neptune Rex. By mid morning us Navy and myself were called out onto the fantail where a 2 foot wide ventilation hose was laid out. Inside the ventilation hose was 2 weeks of gally slop and garbage. All along this 20 foot long hose SHELLBACKS with belts and sections of 2 X4 were spanking us crawling through this slop covered mess. Lucky we were told to strip down to underwear for this ceremony. I probably forgot something. All I remember is going to get a shower. And shortly a full lunch meal.

Across the early night sky low on the horizon one could see a huge star formation of a giant cross. Richard Rogers wrote "Beneath The Southern Cross" which he later re-wrote to a Broadway show: "NO Other Love." where he teamed up with Oscar Hammerstein.

Along my journey, I filmed Bob collecting plants. He showed me a section of Tribulus, a puncture weed with spines about every 8 to 9 inches apart. The spine were 1½ to 2 inches long. Bob also showed me the collection of plants he was drying.

The bug person, the first class Navy dud collected bugs all the time. Most came alive at night. However a few were active during the daylight hours.

Two other S.I. members were MOOSE. A Michigan University football player and a kid my age named Anderson. Anderson was great at making bird collections. Smithsonian Institute wanted exact size and plumage of birds. Indeed All birds he used a hypodermic needle and pumped air into the bird's heart, killing the bird almost instantly... Some birds he pickled in formaldehyde. Others he skinned out.

7 shios in 30 months

Departing Baker Island, the Navy was working on the anchor chain. A swabbie got his leg mauled - Now after 60 years my mind is awry. I have 2 names come to mind. One is Mc Cain the other is Mc Kean. I do recall going to one island that had air service twice a month from Honolulu. The plane was waiting for the Lipan to sail into the island port.

Once we arrived at the other island I believe it was McCain. This was the last desert island we would visit in the Phoenix Island Group. All three desert islands had been mined for GUANO (bird poop) by The American and Pacific Guano Co. of San Francisco from roughly 1880 to 1920. The company made fertilizer and explosives. As with the prior 2 island Mc Cain had boobies, tropic birds sooty terns and the adorable Fairy Terns. On Baker and Mc Cain the shore party spent about 3 days on the island. I need to mention the hermit crabs. They would climb up the wooden stands for the Army cots we were sleeping on. They came to bed with us. They were

Departing Mc Cain our next two islands had been used as cocoanut harvesting islands. But a disease, such as cholera, forced closing the islands and the natives were removed. On both islands the native houses were used instead of needing tents. On one of the 2 island some member of the S.I. party brought in a cocoanut. One member got the thick husk off the seed. The cocoanut. Someone else broke open the nut. I for the first time tasted raw cocoanut milk or juice. Then I had about 3 spoonfuls of the raw cocoanut meat. I tell you I was full, as if I had eaten a full course Thanksgiving meal including apple and Pumpkin pies. These were larger islands. One was said to be 7 miles across. I recall Gardner and Sidnev We spent 3 days on each island. The birds were few.

Then we sailed South for nearly a week to arrive at Pago Pago American Samoa for mail and refueling. This would be the only mail we would receive. In all we would spend 4 days at the dock. Seeing American Samoa was the only volcanic island outside of Hawaii. I heard rumors the harbor was 1,800 feet deep. Rising out of the water were 1,400 foot mountains.

I never saw a gas station. Everyone walked to where they were headed. In fact the only vehicle was a government pick-up truck. One day we had use of the vehicle to band fruit bats living on the island. I went with the S.I. team to band the bats. I heard a strong rumor that only native American Samoans could own land. It was said, that Hilton Hotels planned to build a lodge there. But one of the sons needed to marry a American Samoan woman. She could buy the land and the husband put up the hotel. I have no knowledge if that ever came to fruition!

With one flight every week of 2. and only fishing vessels. Across the harbor was an American fish cannery. A Japanese fishing fleet used the cannery for his catch and source of income. the only thing I bought in the Pago Pago market was a Samoan boat hand crafted from wood. One last thing don't confuse American Samoa with Western Samoa. They are 2 entirely different islands not even close to each other in the Southern Hemisphere.



7 chins in 30 months

By now I had gotten clear of the sun burn I recieved in Pearl Harbor. The blisters had popped and the scabs were falling off. After all the blisters had broken and deained. I started to take off my shirt from sunrise until 8:30. Then again from about 4P.M. until sundown at 6:20. After several days I added a half hour in the mornings and afternoon. Soon I went all day shirtless. By the time I got back to New York, about everone figured I was a black soldier just checking in. I had developoed the deepest dark sun tan imagineable.

In fact on some cays I went totally nude. for who was I trying to impress? The Fairy Terns!!

Now it so Happened that Jarvis Island had been one of maybe a 1,000 or more outpost during the International Geophysical Year (IGY) I remember hearing about it in news cast of the day which was 1956 or 57. Now Jarvis sits over a 1,000 to the closest civilization.. With no port, no airfield a wooden house was build on the island. For en entire year he had to be resupplied with food, toilet paper, pens and notebooks.. Someone would inhabit this isolated, barren and desert site dot on the earth.

The caretaker loved cats and brought some with who ever was the caretaker. when the year was up some cats remained. The first S. I party to come in 1962 painted with a NEST SURVEY paint they had killed 214 cats in the time allotted. My Smithsonian Instutite killed 14 cats. Cutting open its stomach 3 feet the size of a goose fell out. On the desert island the only moisture the cat recieved was the blood and fish the bird had eaten.. That told me cats don't need lots of water to survive. and reproduce. At night I could see additional green eyes looking at me. But I never saw a cat during the day.

I'm ahead of myself. we had amajor personnel change. In Pago Pago, along with came a 4 Stripper, A full Naval commander. A bird colonel in any other branch of service. I couldn't phantom what a man of this rank. leader of well over a 1,000 sailors. How he could take off a month to be leader of himself. I question if maybe the wife and him had a big time fight and he just wanted to get out of Hawaii for a month?

I'm sure there is some Naval protocol when a senior rank boards a junior sized vessel.. However this was a few hour visit, or even an over night trip. This was an entire month.. One thing going was the 4 stripper was an entomologist boss or may be the Pearl Harbor hospital commander. He was not a sea going type rank.

I heard some swabbie ask the raft boatswain if he would dunk the 4 stripper.. I had been dunked in the surf on one of the Phoenix Island. Lucky I had my camera in the drink. However the ammo box floated and the camera and supplies never got wet.

7 ships in 30 months.

From observation. I saw the boatswain watching the ocean turn into surf. There was a pattern it seemed wave were usually in trios. 3 small waves, and one big wave. However a rogue wave come disrupt the wave flow. With 6 or more waves crashing shore per minute. we didn't have to wait long for the forming wave at sea before he gunned the outboard motor to. Again in the Line Island he missed judged the wave pattern and we all got soaked.

With the different island group came some different bird species. Of course the boobies, Fairy terns, sooty Terns and Tropic bird we had Shearwater, Phoenix island Petrels, Frigate Birds, Both small and large.. The difference was the greater Frigate was 30 percent larger than it's smaller kin. Then I can't forget the Line Island parakeet.

The male Greater Frigate Bird has an inflatable red throat. He used for courtship. The Frigates are odd. Their features don't have any oil. So they can't touch the salt water. Therefore the Frigate Birds harass, molest and intrude on feeding birds heading home to their mate and nestling.. They want the tortured bird until it spits up the fish it was taking home as their mate. The Frigate Bird has to dive before gravity put the dead fish back in the sea.

On Birnie Island There is a 11 X 14 picture of me banding a Greater Frigate bird. Special look at my sneakers. the puncture weed Tribulus tore these shoes to nothing. The shoes look like I wore them for 10 years. But in fact the sneakers were 6 weeks old.

Of the 7 islands in the Line Island group 4 were desert and 3 had lush foliage.

On Phoenix Island were Phoenix Island Petrels. This weird bird dug a hole in the ground and it was it's nest. The petrels have very sharp bills so the S.I. crew used asbestos gloves to reach way down into the nest to grab a adult or nestling. A few times the S.I. member brought out both adult and nestling.. However I saw the way the petrels bit was the glove. I have no qualm that blood would be flowing if not for the heavy duty glove.

The last desert island in the Line Islands that we visited was Enderberry Island. It might be Enderberry where i collected the Japanese Fishing net float.. If there were Sooty Terns on the island you could here them day or night.

Our next atoll is the largest atoll in the world, Christmas Island. Some 40 miles long and undetermined miles wide. we were spent 5 days and 4 nights on Christmas Island. It was covered with what I saw with coconut palms.

then onto Washington Island. This was the only active coconut plantation. The island caretaker was an Australian. He got 2 ships a year in for gathering the harvested coconut but also resupply the caretaker. resupply ship had been there 3 weeks ago. He had a 6 month supply of Foster Lager beer in liter size cans. The only magazine he got was the International edition of TIME Magazine. He had just heard that President Kennedy was dead. A whole year later.

7 ships in 30 months

The Austrailian caretaker had a battery operated refrigerator and marine radio.. He essentially he ~~led~~ a solitude life. But the big surprise was he had just read in ~~had~~ International edition of TIME Magazine, the President had been assassinated. A year after the presidents dead the Austrailian cocoanut plantation caretaker had just heard or read the president was dead., He asked us if it was true??? Right there and then I said to my self NEWS is when you FIRST HEARE ABOUT THE EVENT." In Defense Information School they claimed NEWS IS IMMEDIATcy. I balked at that nonsense.

At night the entire Shore party except botinist Bob was invite to stay the night. The caretraker knew the S.I party had been with out female ~~campani~~... He didn't want the native women down pregnat a few weeks after our visit.

The S.I. figured that the Washington Island parakeet numbered about 1,000 in the world. Every last one reside here on Washington Island.. To catch these high in the trees a special net was configured. It had screw in handle sections. In all the net length was nearly 40 feet long.. In the cocoanut grove the light was absolute lousy. I had listed on the can of film PUSH 2 STOPS in development.. Hoping that would be enough to get an image on slow Ektachrome film was rated at ASA 25 with an 85 correction filter. Because the parakeet was the only birds on the island we spent 2 days and one night at Washington Island.

On Washington Island I saw sturdy poles deep in the soil.. Sticking out was a sharpened point. Where men could pound the hard outter hulk . It still took manpower to accomplish this chore.. All over the caretaker house was drying shed. On big rail road track cars of drying coacnut were rolled from one dryingshed to another. until it was finally bagged for shipment. The natives probably used to worthless husk for fire wood. Well that would eliminate trash!!

Nearly the entire trip, the veteran of prior S.I. visäts of prior voyages talked of Cocoanut Crabs.it only took National Geographic 53 years ~~two~~ confirm that Cocoanuts exsist. In its article they say an adult: cocoanut crab has 3 feet long legs and confirmed what I heard can tear a cocoanut apart as its sole diet. The average crab is bigger than a bushel basket.

Sailing back to Pearl, I questioned why I needed to put SECRET on each can of film and in film captions of what shots were on that roll of film. Yet Hollywood did the trick. with atomic bomb horror movies such sas THEM and Godzilla and a score more of 20 foot tall fly, ant eating people. We were looking for flocks of birds with 3 heads, two tails and 5 feet hall. which we never found on the Marshall and Gilbert, Phoenix and Line Island groups.



# ANNEX A

## RESEARCH AND DEVELOPMENT PROJECTS

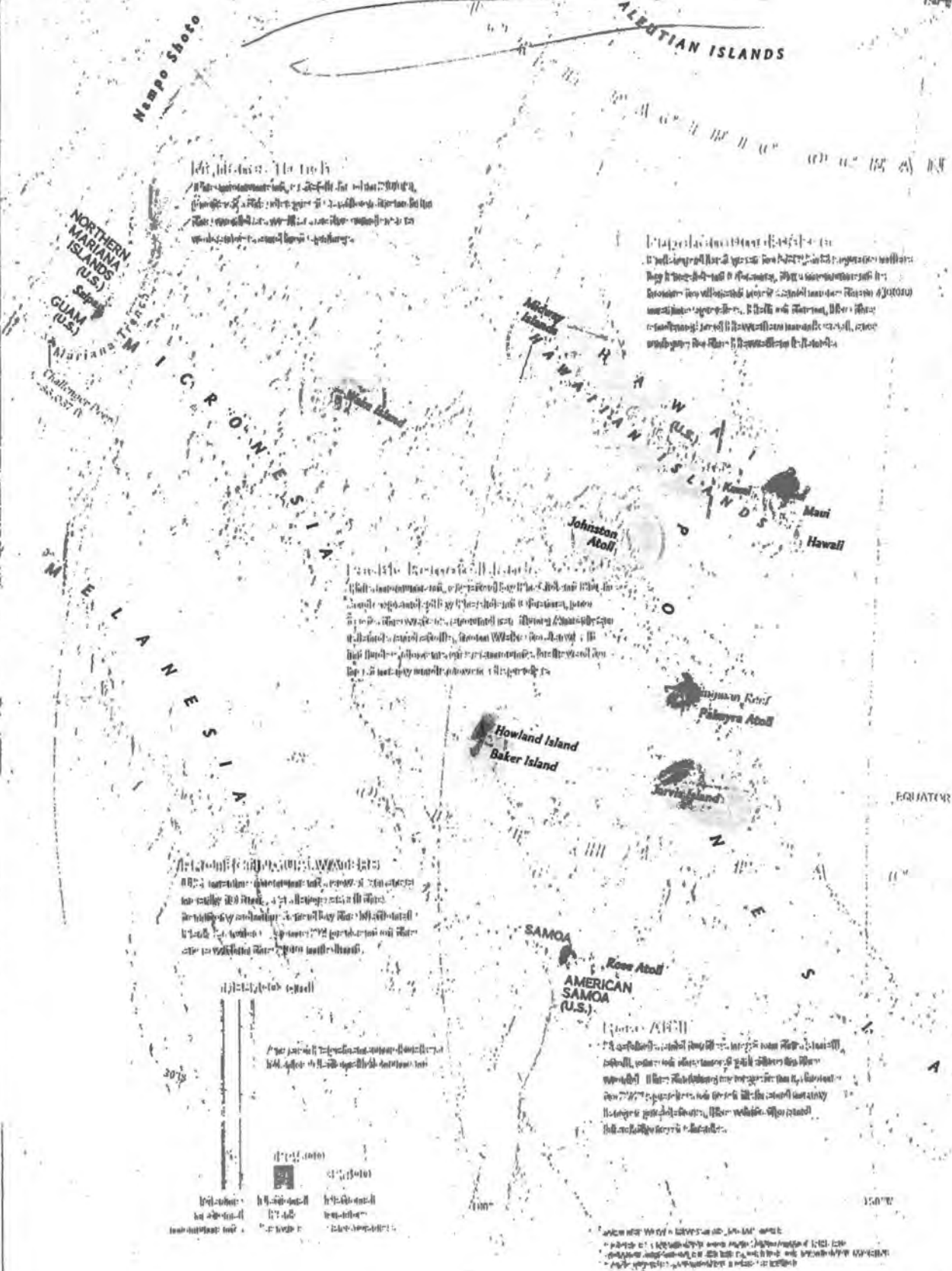
ELK HUNT I	1 June 1964 to 19 August 64	Ft. Greely, AK	80 days
ECHO & Echo	28 Sep 64      9 Dec 64	A Phoenix & Line Is; B Marshall & Gilbert Is	72 days
High Low	4 Jan 65 to 5 Mar 65	San Diego & Long Beach	60 days
MAGIC SWORD	26 Apr 65 to 14 June 65	Naker Is. Phoenix Is.	49 Days
ELK HUNT II DIVEL HOLE I	21 Jun 65 to 10 Sep. 65	Ft. Greely, Ak	80 days
Sun Down Swamp Oak	3 Feb 66 to 11 Mar 66	Ft. Greely, A	32 days
Yellow Leaf Tall Timber Pine Ridge	20 Mar 66 14 Jun 66	Big Island, HI	86 days
???????	28 Apr 69 to 9 May 69	Vieques Is. Puerto Rico	11 days
Foggy Cloud II	28-Sep 70 to 23 Oct 70	Arcata, CA	25 days

## SHIPS I'VE SAILED ON

U.S.S. Mitchell	Oakland, CA to Inchon, Korea	21 days
U.S.S. Lipan	Pearl Harbor to Phoenix & Line Islands	72 days
U.S.S. Wexford County	San Deigo	5 days
U.S.S. Okanogan	Long Beach, Ca	5 days
U.S.S. Fletcher	Long Beach, Ca	5 days
U.S.S. Berkley	San Diegom Ca	5 days
U.S.S. George Eastman	Pearl Harbor to Baker Is. (Phoenix Is.	49 days
Shellback U.S.S. Lipan	ATF-85 South of Baker Is. to Pago Pago	
	American Somoa	
Golden Shellback U.S.S. Geo. Eastman	YAG-40 Int'l Dateline & equator	

# OPTIONAL

ALASKA  
(U.S.)



Aldabra has one of the last healthy populations of coconut crabs in the western Indian Ocean. Elsewhere, the world's largest terrestrial arthropod, with a leg span of three feet, has been eaten to extinction by humans.





7 ships in 30 months.

In after thought: it took 2 full days for the coconut crab to dye. It was in a plastic bag with formaldehyde.

Three weeks later I was part of a photo team headed to San Diego Naval Base., for Deseret Test Center's project HIGH/LOW.

It involve 4 ships. Some here in San Diego and 2 other in Long Beach. The project would involve going to sea for a week per ship. In some trials only the (X) hatches would be closed. Other both the (X & Y) hatches were closed/ A few trials all three the X, Y and Z hatches were sealed.. But that was all in the future.

We ate our meals in the consolidated gally or dining room. I bet it served 500 to a 1,000 meal at a setting. It had eggs to order, bacon, sausage, pancakes anyway a tray full of food. It had a special treat a lug/flat of fresh DATES. Mom had always had a box of dromedairy dates. However were they 5 or 10 year old???? These dates were fresh from Indio, California. They were juicy, yummy and I could see why caravans of the desert sought dates as prime source of food...

After breakfast the team would meet the lieutenant at the base snack bar. There we found out the days activities. We were a week early. So I could walk to the main gate and catch a bus into down town San Diego. On the corner of 14th and some main drag I located a piano bar to my likings.. This bar became my home away from the base.

One day the team, minus the lieutenant took a trip to the San Diego Zoo. It was well worth the trip. However waiting in line at a snack bar. A cockroach with big curlers in her hair, toting 2 or 3 linoleum lizzards was in line digging in her purse for nickles, dimes and pennies to pay her purchase. It was obvious she did not have enough money. Finally after a line formed behind us. I told the woman and the server, I'd pay or add to my bill what she still owed.. I'd pay her bill, just to get the line moving again.

The first ship was the Wexford County an LST for landing ship tank.. Big double wide doors opened to allow the cargo drive off the ship. The LST would drop anchors out to sea and beach its self. In many cases the trucks and jeeps would be loaded with cargo. Such as food, gasoline, ammo or morters.. Then the all the trucks, jeeps and other motorized cargo left the ship. The lightened ship could pull itself off the beach, with its anchors.

Through out the huge empty cargo bay samplers were welded to the deck. Also in the crew areas samplers were placed everywhere.

On the bow was a smoke generator. This was not a Dugway involved project, but I bet the samplers came from DPG. Dugway Proving Grounds.)

The smoke generator was mounted on the bow of the ship. But For most I had to illustrate how to board a ship to my land loving team mates. By saluting the American flag on the fantail and then the officer on deck, or day.

7 ships in 30 months

On a Monday morning camera gear and crew set sail into the Pacific ocean. on a Monday morning.. Never being on an LST I went looking around the ship. I open one hatch to see the size of the cargo hole.. I later in Vietnam saw how packed the LST and LSD could be, when I filmed the Walter's Tractor.. This whole could carry tank, jeeps oil tankers, semi trucks anything.

Up on deck when out to see. the ship set a course heading North for 2 hours. X hatches were sealed / The smoke generator took over pumping out smoke oil. The same stuff used in airshows. I felt cheated, not working with real toxic agents.. So I stood there watching the smoke encase the ship.. It would take all morning to arrive back at our starting position. So one trial in the morning and one in the afternoon was it for that day. So in 5 days we would do 10 trials and head home or back to port.

The night after the teams trip to the zoo, I went to the Caliph piano bar. Sipping a beer at the piano, when in walked a doll. she saw me and I thought she was going to come kiss me. Here she was the cockroach at the zoo without the curlers, just wanting to thank me for paying her bill. Well the cockroach turned into a butterfly.

Our second ship would be in Long Beach. All I could envision was a suburb of Los Angeles. We were given a Navy subsuburban for the 100 mile trip. We passed. Along the way we passed Camp Pendleton. Jar-heads on a Sunday morning were conducting amphiban operations. We saw several troop carriers come out of the water and on wheels across the beach.. Further up the road a sexy brand new Fords Mustang convertible driven by college age group. When they came abreast of us and saw we were military They blew us kisses and slowed to keep us with the slower military van. We had all read and saw commercials for the Ford Mustang. But this was the first dandy we ever witnessed. much a convertible driven by college age, our age group.

Every senior sergeant I ever met, stated flatly YOU PUT A COPY OF TRAVEL ORDERS IN YOUR WALLET. These pollywags, land lovers. This was all brand new to them. Most of the time that travel orders will be useless. But this trip to Long Beach would prove its value!!!

Everywhere I've ever checked in they wanted 3 copies of the orders. We were given 30 apiece. We would need copies to get plane tickets back home or by bus, train or any means. Plus 3 copies for a travel voucher at the end of this temporary duty.

Here these jerks in Long Beach demanded we hand over every copy of our order. Saying you'll get them back when you leave..

of course here was down time. We were told the samplers had to come off the Wexford County and re-welded onto the new ship, when they arrived. That ship U.S.S. Okanogan a (AKA) A cargo ship. bringing office and cleaning supplies, Base Exchange items plus all the necessary items to make a Navy function.. The Okanogan would have multi decks.

As usual with getting removed the samplers from one ship to the Okanogan, left plenty of free time for us camera crew to go off base to see the town of Long Beach. I tell you it was depressing. I thought I was in the slums, the ghetto. The building dilapidated in dis repair.. Most likely the result of World War II base expansion. To house the added civilian work force, clabboard building were erected.. With little maintenance on the structures by 1965. the town showed its age.

locating a step down bar with the door open, in the middle of day. Going in their behind the bar was a woman that resembled Kim Novack.. I was the sole customer.. She told me that she was a stand-in for the actress on several movies. I just figured that every regular of that saloon was putting the make on her.. So why make a half hearted attempt?

On the not so bright side event of Long Beach. I believe the amusement park right on the beach was called THE WHIP." At sea sailing 2 to 4 miles off shore as we passed the circus on the beach, we on the ship could see the flashing light and wirling lights of the farris-wheel moving in a large circle.

On the Okanogan, the lt. put one cameraman down in the engine room. To get the sweating faces. the drops of sweat on the crew's faces. and even the few that fainted from the heat. I was just a excess baggage. The film team I was with had worked as a team for a while. I was the loner. The outcast.

The ship had taken off the ship anything that might get contaminate accidents or sensitive supply like medical bandages ETC. I was given a camera just to film the smoke generator.. Like I said, I felt cheated, not wearing a gas mask and full rubber suit. The usual routine prevailed. A trial in the morning. Return to the starting point while the crew ate lunch and new samplers were installed. For the afternoon trial. On all trials the X hatches were closed. A few trials the X and Y hatches were sealed and a few trials all three hatches The X Y and Z hatches were completely sealed for that trial only. For 5 days the trials continued.

Still in Long Beach we waited for the samplers to be attached on the (DD) U.S. S. Fechteir (DD-870) An aging Tin-Can probably a fugitive from moth-balls. My uncle was on a destroyer during World War II.. He survived as a cook. I knew I could survive since we were at peace. Unless this rust bucket sprang a hull leak and we sank.. Well we went to sea on a Monday morning. I saw four boats cross our path heading to the channel islands and Catalina. Along with party boats were fishing boats. These were pleasure boats not fishing fleets..

At the end of 5 days for some totally unexplained reason the Fechteir didn't return to port. The funny thing only the camera team was put ashore abandoned. The ship's captain neglected his duty.

Anyway the ship put us camera crew on the beach, about 100 yards from the WHIP.. bag, baggage and camera gear the 5 of us persevered in trudge through the sand to the boardwalk.. Here I was glad to have an officer along.



7 ships in 30 months

While writing this saga, I just happen to consider. Did the Lieutenant piss off the ship's captain that he dumped us on the beach???? No person of the ship said assingle word of discord.

On the boardwalk while the crew rested the Lieutenant went in search of help. Locating a shore patrol on the boardwalk., the lieutenant told of our plight. Of course the ~~crab~~ abbie contacted his dispatch and the only vehicle available to get us off the boardwalk and back to the transit building on base was the ~~ADDY~~ WAGON. We used a jail transport as a taxi!!!!

Driving up to the transit\* barrack. All eyes came to the attention of the Shore Patrol vehicle stopping. The gang inside was wondering what kind of a drug bust was about to ~~open~~ open???? When the door open and us camera crew got out, everyone was relieved

forth ship would go to sea ~~on now was the~~ brand new DDG for guided missile destroyer the U.S. S. Berkley. The entire routine was exactly the same as the prior trip of ships. At the end of the 2 hour normal speed trial, the berkley made a U turn and went to FLANK SPEED. Man, on shore we passed traffic traveling on the Pacific Coast Highway. The speed limit in 1965 was 55 MPH.. I'm sure the traffic wasn't crawling along.

However this was a new adventure. Often while returning to the starting point at FLANK SPEED the ship would go to GENERAL QUARTERS and preform drills. Readiness was the theme of the drills. I saw ASROC missile domes or lids come off the missiles. Then the missile was ready to fire. No other ship conducted drills.. The week sped by even with 2 trials a day.. It took time to retrieve the samples and attach new vials to the vacuum cleaner motor to be ready for the next trial.

At the end of the week, the Berkley returned to Long Beach Naval Bases. When we got to the transit barrack office to sign out and retrieve 30 copies of our travel orders. Full of a 1/5th of a paper ream. The orders were no where to be found. I was half laughing at the dilemma. The guys were nearly finger nail biting. The worried look on their faces told the entire story. I heard one troop tell the lieutenant. Call New York and have more copies mailed or send by wire. After a near pandemonium to whispered in the lieutenant's ear. Lets get the hell out of here. I got a copy of travel orders in my wallet. In San Diego we can get copies made there. With that we got in the Navyruck and headed South to more pleasant time.

# ORIGINAL

ALASKA  
(U.S.)

Nampo Shoto

ALEUTIAN ISLANDS

NORTHERN  
MARIANA  
ISLANDS  
(U.S.)

GUAM  
(U.S.)

Challenger Deep

MICRONESIA

MELANESIA

Midway Island

HAWAIIAN ISLANDS

Maui

Hawaii

Palmyra Atoll

Howland Island

Baker Island

Jarvis Island

EQUATOR

SAMOA

AMERICAN  
SAMOA  
(U.S.)

Rose Atoll

1:100,000

1:100,000

1:100,000

1:100,000

1:100,000



## Aedes aegypti mosquito (aka Yellow Fever Mosquito)

Storage of the outlandish quantity of nasty insects on a ship was quite ingenious, yet simple. Using bakery style fold up racks, holding, I think 10 trays for bread doughnuts and other items. The lab people could place about 30 pint or quart size hand dipped ice cream containers per tray. This enabled all 2 1/2 million mosquitoes to be housed on 3 racks utilizing about 10 square of floor space.

Feeding the insects was simple too. A hole in the lid, with gauze attached, allowed the mosquitoes to breathe, but not escape. Daily the lab men dipped cotton balls in a solution of water and I believe sugar. Placing the cotton balls on the gauze lid provided the precious cargo its sustenance.



7 ships in 30 months

The reoccurring event was taking place again. As Deseret Test Centers jobs, a photo team was gathering equipment for the mission.

I was jammed on the project at the last minute. The rumor was one of the team didn't possess the proper security clearance!! there for I was a substitute for that individual.. The boss of the photo team was Lt. Pak. His first cameraman was Budworth. both had graduated from UCLA Film school. Budworth was my bunk mate. I had the lower, and budworth the upper bunk.

Remember the 23 page summary I wrote for Project Echo & Echo, or the bird cruise..Well it was never funded for editing. so it was a study for naught!!

I was used to working by myself.. If I didn't do it, it wasn't done at all. After all I never had any complaints. . Project HIGH /LOW ended on ,arch 5th and on 26 April the team boarded a United Airline flight from Kennedy to Honolulu and Pearl Harbor. Once again Deseret Test Center had it's PLO ( Pacific Liaison Office) picked us at Honolulu Airport. delievered us in Pearl Harbor at the YAG-40 YAG for Yard Auxillary General) a research ship.

Again I had to instructure these POLLYWAGs the correct procedure for boards a Naval Ship. Aboard we were provided a lower deck cage with deck to ceiling wire closing gate, for storing the camera gear. An identical cage was empty adjacent to our.

A few days after our arrival, the neighboring cage was occupied. A team of entomologist from Pine Bluff Arsnel in Arkansas. The entire ships cargo was 2½ million Aedes Aegypti mosquitoes. The entomologist told us the mosquitoes can carry a dozen diseases and travel from 6 to 12 miles from it birth place. The Pine Bluff used bakery or grocroy store bakers racks to transport the mosquito. The foldup racks held probably 8 trays. Each tray held 18 or more ice cream containers, in the quart size. The lid was cut out so gauze could be attached. . Then daily a wet cotton ball with sugar for nourishment.. I'm guessing each quart container held 750 to 1,000 mosquitoes.

This project was a real conglomeration of services. This was the only DTC project out of a dozen I worked on with an Air Force Major as Test Director. A Air Force Major riding on a Navy ship with an Army photo team and 2½ million mosquito as cargo. Oh yeal what an amalgamation of branches of service.

So it was all a mysterious event. While the other film crew guys were asking why X and Y on some hatches, while a few others had a Z notations? the ship's loud speaker came aloud saying SWEEPER SWEEPERS MAN YOUR BROOMS, GIVE A GIVE SWEEP FOR AND AFT. SWEEP ALL-PASSAGE WAYS, STAIRWELLS AND LADDERS. SWEEPERS SWEEPERS MAN YOUR BROOMS." Oh lords when these pollywags asked what a stairwell or oassage way, I wanted to BARF.

On the 3rd dav out to sea the ship heading due South a meeting was called in the WARD ROOM to open the sealed orders. Lt. Pak went to the meeting. Coming down to the equipment rook he said we are headed for someplace called BAKER Island!! I said " GOOD OLD B.I. I"VE BEEN THERE."

ships in 30 months

Now the entire story came into focus. My 23 page summary wasn't for naught after all. Deseret Test Center is money bags for this Project and all their projects. Deseret Test Center gets a copy of all written visual and other reports on the job. Therefore while the report wasn't, used in the manner I intended. It was still had utility. My words told DTC that Baker Island to me was far more than just a dot in the Pacific Ocean. The Lt. scampered back up to the WARD ROOM to announce he found our reconnaissance person.

In the long run a lot extra work was put into repurposed need. A few minutes 2 sailors with SP arm replacements to say SHORE PATROL. bannidhing a web belt and holster sporting an empty pistol was there to escort me to the WARD ROOM. There they drained my mind of all I knew about Baker Island., Hell, I was the reconnaissance for the project.. I became the second most valueable item on the ship, outside of the mosquitoes!@!. I'm certain DTC demanded that I be put on this project.

In the WARD ROOM I explained the Igneous rock, the deep water channel, the punchure weed and that the island had been used as a air base in World War II. That the interlocking steel mating was still visible in many locations.. I probably mentioned the birds, and specifically the SootyTern colony that would squawk day and night.. With no report from the 6th entomology team in Pearl Harbor that in 8 trips to Baker Island they had never located a mosquito on Baker Island. What a wonderfu; place to releaser 25 million Aedesa Aegypti Mosquitoes..

The project would see what percentage of those released actually made it to shore. and what percentage would be females. Because only females can bite and inflict disease.. The Pine Bluff people told the camera crew that the Aedes Aegypti can carry a dozen diseases, but the military would only insert 3 or 4 disease in a single female.. We were told the female bites will allow her to have babies. with out blood, the females would be sterile.

I had the prudent idea to advise the ship's commander that it might be advisable to put several men ashore the night before the project people went ashore to notify the ship when low tide and high tide occured. Even on Ohau between Kaneohe Marine Corps Air station and Barber's Point Naval Air Station; a distance of 40 miles the tides are 1/3 of a hour different.. Then again I forgot this was a research ship. Not like the ships we uded in Project HIGH/LOW were we went to sea and sailed around for a week and returned to port. This crew probably had never made a island landing. At the same time I was clue less to extent and scope of the project. I never saw anyone load the LCVP for the tonnage of gear we would carry ashore.

After breakfast the ship's loud speaker came on saying all those going ashore gather on the main deck for departure. That was the begining of the farce!!!!!!

7 ships in 30 months

Deseret: Test Center (DTC) get a copy of everything written, visual or verbal concerning a project. Therefore my 23 page summary wasn't used as intended, but it told DTC what they needed to know. The vegetation, the deep water channel, the igneous rock. In general that I considered Baker Island a lot more than just a dot in the vast Pacific Ocean.

In the long run a lot of work was put into repurposed utility. When hearing that I've been to B.I., the Lt. scampered back up to the WARD ROOM to inform the others he had the missing link. IT became clear that DTC demanded I be put on this project. Only the mosquitoes had a higher priority. A few minutes later a pair of sailors wearing an arm band claiming SP for SHORE PATROL, sporting a web belt with holster and unloaded pistols were to escort me to the WARD ROOM to drain my mind of all I knew of Baker Island. I told them of the Tribulas or puncture weed, the igneous rock to mark the deep water channel and possible I mentioned the squawking Sooty Tern that yell day and night in their one or 2 acre colony. I informed them of the elevation and that the island was used as a World War II airbase and the interlocking steel mats were still visible at many places on the island. I became the ground reconnaissance.

I had the inclination to advise the ship's command that it might behoove the ship to send a small team ashore the night prior to the shore group actually going ashore. The group would take poles or sticks and place one at the furthest point the tide water rose. If the water or surf went higher it said the tide was still coming in. When the surf no longer touched to pole the tide had changed. That information should be conveyed back to the ship. Because even on Ohau the tides are a 1/3 of a hour different between Kaneohe Marine Corp Air Station and Barber's Point Naval Air Station.

For several more days we sailed South approaching the equator as being just 10 to 12 miles South of Baker. On early evenings after sundown one could see the huge Southern Cross star constellation. In these final days aboard ship I could again view flying fish and porpoises swimming abreast of the ship's bow.

After breakfast on the day we arrived at Baker on the West side of the island, the ship's loud speaker announced that the group going ashore needed to form up on the main deck by LCVP number so and so. Seeing the loaded Landing craft I was amazed at the tonnage of stuff going ashore.

On board on the bottom was a Army Mule. Basically a glorified sheet of plywood, with motor, 4 wheels a steering wheel, a seat for the driver a clutch and gas peddle!! The Mule carried a GP for general purpose huge tent a smaller tent or 2, rations as food, water cans, a 4 hole outhouse. office supplies along with the test director, about 20 sailors and 3 of the 4 cameramen and Lt. Pak!!



7 ships in 30 months

Lt. Pak left one cameraman on board ship to film the mosquito release.

I can't tell you if the mosquitoes were released from their dispensing cage was located on the bow or ship's fantail. From the distance to shore of over a  $\frac{1}{2}$  miles. off shore. the mosquitoes once released could fly in 360 degrees azimuth, anywhere in a circle. However of the 360 degrees only a fraction of degrees would bring them ashore. The ration was about 20 degrees. The other 320 degrees the mosquitos would fly until exhausted and become fish bait.

I really have no idea how many mosquitoes were released on a daily term. However I bet they actually didn't count the mosquito but rather emptied X number of ice cream containers. I guess about 200,000 flying insects per day were released. From that what percentage made it ashore and what percentage were females.

One item the cameraman remaining on board the George Eastman was the head gear. DTC bought for the group ashore authentic African safari pith helmets. It was basically a joke. The sailors wanted as tropical suntan. But a lot got blister from the direct sun. The sailors had their bell bottom pant pulled up to the knees. A lot had their shirts open as well. Now it's knowledge that mosquitoes are attracted to ammonia. So the more ammonia a person gives off in their body odor the chances of attracting more mosquitos.

For us camera crew the pith helmet interfered with putting the camera to the viewing point. In the pith helmet while a novelty, the worth was less than stellar.

Daily one trial was conducted. After every trial a select group of individuals gathered to collect and count the Aedes Aegypti mosquitoes that found their way from ship to a sailor's exposed skin. On one trial the normal; Eastern trade winds must have switch to a west direction, bringing many more mosquito ashore. The Test Director asked Lt. Pak to have us cameraman drop our cameras and get a 2 minute introduction on how to identify male from female mosquitoes. Now us cameraman looked at the mob of half crushed bugs.

If I can remember from June 1965 the male's body (thorax) was like the cereal rice. The females had a pung enlarged thorax. There was something about the whiskers besides the hypodermic needle for sucking blood.. There us cameramen sat sexing mosquitoes putting males in one pile and females in another. Then count how many were in each pile!!

When all the mosquitoes were released; the Mule had a different mission. Not liking the morass of coming ashore. with the LCVP stuck on the beach, anything and everything not necessary was carried to the sandy beach for a big fire. It included all the C-ration cartons, the 4 holer outhouse. The mule carried all to the shore, wheather for fire or reload on another LCVP to take the shore party back to the ship.

7 ships in 30 months

Once the ship was under sail, I noticed our heading was West ward bound, not North to Pearl Harbor. I wondered what Scalley-wag mission were we now on? I couldn't phantom why we were heading West instead of North toward Pearl Harbor. The next morning the ship's loud speaker explained it all. During the night we crossed the Equator and the International Dateline, making everyone on board a GOLDEN SHELLBACK!!!!. I said to myself. I'm probably the only SHELLBACK on the ship. I certainly ain't going to conduct the entire ceremony by myself.

Sailing back I questioned to myself what sort of "BOARD OF INQUIRY" would be launched against the Captain for loosing a part of his ship. It didn't even occur to me that the research ship's crew had probably never made an landing except at a reinforced dock. That whole experience was brand new for the entire ship's company. The concept that I didn't want to interfere with Naval Tactics. I should have told them to send people ashore the night before to check on the tides. As an Army troop, They probably wouldn't believe me, but the result of not being informed has it's proof sitting on Baker Island shore!!!!!!!!@!!!