

# Medals Commemorate Presidential Visit



FRONT AND BACK OF COMMEMORATIVE MEDALS

Approximately 6500 Commemorative Medals of President John F. Kennedy's visit to NOTS on June 7 have been distributed to Station personnel as coveted keepsakes of that memorable day.

Here's how the medals were made:

**Front Design**  
The profile of the President on the front was engraved from a three dimensional plaster model sculptured by Charles B. Nardone, head of the Graphic Arts Branch, Technical Information Dept. He created the model from an original drawing developed from many photographs.

**Back Design**  
The design of the back of the medal is a creation of Lynn Nowels, head of the Presentation Art and Design Section of Graphic Arts Branch. The American Eagle spreads its wings to protect the dove of peace, symbolizing the role played by NOTS, the Bureau of Naval Weapons, and the entire Navy. On the left side is a symbol of advanced

computing machines used by the Station's mathematicians, scientists and engineers. Below and to the right is a sunburst depicting the work done by Dr. Michelson in the field of the measurement of light.

**Over-all Design**  
The various elements used in the design of this medal were put together into an over-all design through the collaboration of two other members of the staff of the Publishing Division of TID, W. S. Spafford, head of the Editorial Branch, and Richard Johnsen, an artist in the Graphic Arts Branch. The exact words and elements to be used on each side of the medal were determined by Spafford, and their arrangement into the final product was the work of Johnsen.

# SHOWBOAT

**FRIDAY JUNE 28**  
"MIRACLE OF THE WHITE STALLIONS" (118 Min.)  
Robert Taylor, Lilli Palmer  
6 & 8:15 p.m., Friday  
(Drama in Color) Disney's true story of the efforts of the director of the famed Spanish riding school in Vienna to save the priceless Lipizzaner stallions from the ravages of war. Unusual, interesting. (Adults and young people)

**SATURDAY JUNE 29**  
"DONDI" (100 Min.)  
David Kory  
1 p.m.  
SHORT: "Each Down I Crow" (7 p.m.)  
"Rear of the Iron Horse, Chapter No. 1" (13 Min.)  
— EVENING —  
"MIRACLE OF THE WHITE STALLIONS" (118 Min.)  
Robert Taylor, Lilli Palmer  
7 p.m.

**SUN. - MON. JUNE 30 - JULY 1**  
"NINE HOURS TO RAMA" (125 Min.)  
Horst Buchholz, Jose Ferrer  
7 p.m.  
(Drama in Color) Fictional story of the life of the assassin of Mahatma Gandhi are engrossingly blended with historical events leading to the great leader's demise. A superior "don't miss" drama. (Adults and young people)

**TUES. - WED. JULY 2-3**  
"GYPSY" (143 Min.)  
Rosalind Russell, Natalie Wood, Karl Malden  
8 p.m.  
(Musical Drama in Color) Based on the life of Gypsy Rose Lee, this tells of a dominating mother whose determination turns her shy daughter into a world-famous stripper. Here's the tawdry world of burlesque with loads of heartache, laughs and song. (Adults)

**THURS. - FRI. JULY 4-5**  
"DIAMOND HEAD" (107 Min.)  
Charlton Heston, Yvette Mimieux, France Nuyen  
7 p.m.  
(Drama in Color) Owner of huge Hawaiian plantation has political ambitions until his sister announces plans to marry a full-blooded Hawaiian boy. His opposition to marriage creates chaos. Beautiful setting.  
SHORT: "Magoo Goes Overboard" (7 Min.)



EVERETT HENRY RANDY GOULD

# Local Scouts Win Prizes As Top Ticket Salesmen

Two China Lake Scouts were among five area youths who won valuable prizes by selling 50 or more tickets to the big Scout Exposition last month in Albert Goode Auditorium in Bakersfield. The other two winners are Walter Doty of Ridgecrest Troop 800, who sold 71 tickets, and John Scott of Trona Troop 815. Henry of Troop 3, who sold 50 tickets, each has his choice of either an official Timex wrist watch or a Hikelite Boy Scout sleeping bag as his prize. A "district winner" — Daniel Haugen of Ridgecrest Pack 291, who sold 90 tickets — will receive an extra-special prize of the official Scout Overnighnter Tent, plus his choice of either the watch or the sleeping bag.

# Gossip or news?

What's the difference between gossip and news? It depends upon whether you hear it or tell it.

# HIPEG - 12,000 Rounds Per Minute

(Continued from Page 1)  
derson in addition to key civilian and military members of the Defense Department.

Hughes developers said the three HIPEG gun systems demonstrated the "greatest concentration of gun fire power ever mounted in a single aircraft — fighter or bomber."

The triple-pod mechanism affords about twice the firepower

possible on any military aircraft in operational use today.

**Quick Installation**  
They point out that quick installation or removal of the pods gives a military commander the option of ordering an aircraft on an air-to-ground mission or putting it up quickly for observation missions without armament. Each gun pod is attached to an aircraft in about three min-

utes and removed in one minute, according to Hughes officials.

The HIPEG demonstration June 7 presented sharp contrast between the 50 cal. and 20mm guns used during World War II and Korean actions. The new weapon spits a steady burst of ammunition in a concentrated area, firing 66 rounds per second from each twin-barrel system.

# LIFE Magazine Here

Scheduled for release in the near future is a picture layout in LIFE Magazine on HIPEG in its final stages of evaluation here. Photographers from that magazine and representatives of Hughes Tool Company's public relations staff were here Wednesday and Thursday photographing HIPEG in action. Project pilot David Callahan, a Navy Lieutenant based at the Naval Air Facility, demonstrated the gun for President Kennedy in addition to the tests flown this week.

# Forced Landing

(Continued from Page 1)  
air strip, runway 36." Found by the Shore Bombardment Group at 2047, they proceeded to Operations.

**Wants to be Naval Cadet**  
Kroeger told LCDr. T. S. Wallis Officer in Charge, San Clemente Island, that he has his application in to become a Naval Aviation Cadet. LCDr. Wallis says he thinks Kroeger will make a good one.

After a good meal, he was bedded down for the night until favorable weather allowed take-off.

At 11:55 a.m. the next morning the promising Naval Cadet took off via the "South San Clemente Island Airstrip Runway 36."



FAREWELL DINNER for departing member of China Lake Credit Union, Sgt. Frank Brandon (center), a member of the Credit Committee, was held this week. President Henry H. Wair (left) and Manager Ken Martin extend thanks of community for Brandon's efforts.

# CROSSWORD PUZZLE

Answer to Previous Puzzle

**ACROSS**  
1-Drawls  
2-Kind of tree  
3-Son of Adam  
4-Spreads for drying  
5-Soft food  
6-Documents  
7-Girl  
8-Title of respect  
9-Wolfhound  
10-Intertwined  
11-Yesed  
12-Tolerate  
13-Greek letter  
14-Algonquian  
15-Indian  
16-Employer  
17-Obstruct  
18-Wealth  
19-Hebrew letter  
20-Word of sorrow  
21-A state  
22-Symbol for copper  
23-Makers  
24-Printer's measure  
25-Cooking term  
26-Pintail duck  
27-Proposition  
28-Paradise  
29-Through  
30-Higher  
31-Skillful  
32-Nobility  
33-Blouse  
34-Swiss river  
35-Bill-like bird  
36-Prophet  
37-Music: as written  
38-Pierce  
39-Server

**DOWN**  
1-Ethiopian title  
2-Night bird  
3-Forest officer  
4-Plumlike fruit  
5-Enlisted man (init.)  
6-Bitter vetch  
7-Small child

1	2	3	4	5	6	7	8	9	10	11
12				13				14		
15		16		17				18		
	19		20			21				
22	23		24	25	26	27				
	28		29		30			31	32	33
34			35					36		
37		38						39		
40			41			42			43	
44	45		46			47	48			
				50	51	52			53	54
55			56			57	58			
59			60					61		

Distr. by United Feature Syndicate, Inc. 29  
For Use In Authorized Papers Only

From \_\_\_\_\_ PLACE STAMP HERE

TO \_\_\_\_\_

# NOTS Pasadena Fetes 15th Anniversary

## Ceremonies Planned at Foothill

For a review of NOTS Pasadena's 15-Year Progress, See Pages 4 and 5.

A pre-holiday spirit prevailed amidst the more than 1000 military and civilian personnel of NOTS Pasadena as they prepared to observe the Annex's 15th anniversary Monday.

It was July 1, 1948, that the installation was converted from a General Tire and Rubber Co. operation to its present Navy and Civil Service status. Negotiations with GTS had been conducted by NOTS three years earlier when it assumed control from various CalTech groups.

Ceremonies marking the anniversary were to be held at the Pasadena headquarters where Capt. E. I. Malone, USN, has been officer in charge since July, 1961. Douglas J. Wilcox is Assistant Technical Director for Development (Weapons Systems) and head of the Underwater Ordnance Department.

Joining the observance, in spirit at least, will be the personnel at Morris Dam, Long Beach, San Clemente Island, Seal Beach and aboard the USS Butternut.

## Message From Capt. Blenman

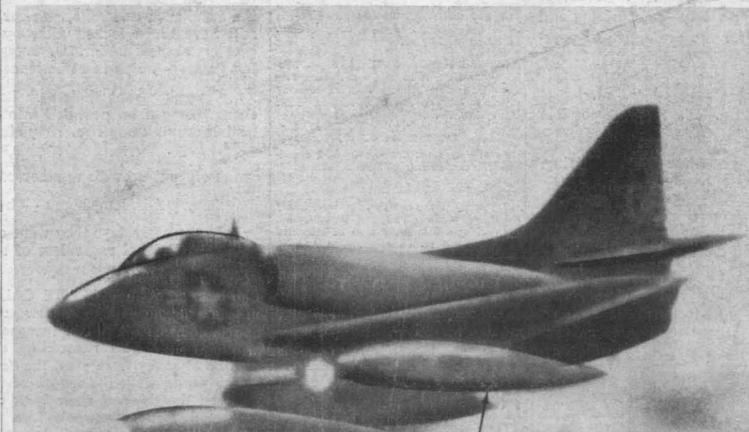
On the occasion of NOTS Pasadena's fifteenth anniversary, I wish to extend to all of our Pasadena employees my heartfelt congratulations.

During those 15 years of performance, your achievements have been many and the defense of our nation has grown stronger as a result of your efforts. The contributions made by NOTS Pasadena to this command, the Bureau of Weapons and the Navy Department reflects the deep sense of loyalty and dedication that is in keeping with the highest standards of the U.S. Navy.

To each of you, I wish to convey my deep appreciation and very best wishes for your continued success in the future.  
Capt. Charles Blenman Jr., ComNOTS

Vol. XVIII, No. 25 NAVAL ORDNANCE TEST STATION, CHINA LAKE, CALIFORNIA Friday, June 28, 1963

# HIPEG - 'Fastest Gun' - In Final Checkout Here



**Three Pods Fire At Rate of 12,000 Rounds Per Minute**  
The world's fastest firing aerial gun, called HIPEG (High Performance Gun) by its developers, Hughes Tool Company, is undergoing final development evaluation at NOTS in the hands of China Lake scientists and Navy flyers based here.  
The radically new weapon was given its debut before the nation's Chief Executive during his visit here June 7.  
**Claim It's Fastest**  
Locally, William C. Ward, project engineer and a staff of Navy project pilots, headed by Commander Jack Sickel, are working with Hughes representatives who claim HIPEG fires faster than any other gun known.  
Its official rate of fire is 12,000 rounds of 20mm cannon shells per minute.  
Contained in three pods slung beneath the plane's fuselage and wings, each pod contains two barrels which can fire up to 4,000 rounds per minute.  
**First Public Firing**  
HIPEG was first fired publicly during President Kennedy's visit here early this month from an A4 "Skyhawk" attack plane. The audience included Navy Secretary Fred Korth, Chief of Naval Operations Adm. George A. (Continued on Page 8)

## Little League Sponsors Event

# Big July 4 Program Set

Another great Fourth of July program, sponsored by the China Lake Little League, awaits Station personnel next Thursday evening.

The big fireworks display will begin at about 9 p.m., following a series of colorful events scheduled by officials and players of the Little League.

The Independence Day ceremonies will begin at 6 p.m. with the raising of the Colors and playing of the National Anthem at Diamond No. 1 in McLaughlin Park.

At 6:15 there will be a T-Ball exhibition, and at 6:45 an exhibition of Farm League, using the pitching machine.

At 7:15 another exhibition game will be played between Major League 12-year-olds and managers and coaches. Following this, Sponsor Certificates will be issued to sponsor representatives at 8:20.

Ten minutes later a new "Miss Little League" will be selected



RITA PAYNE 'Miss Little League' To Relinquish Her Crown

To succeed pretty Rita Payne. Then, at 9 p.m. the fireworks display starts. The fireworks are donated by

the Bermite Powder Co. and are fired by a crew of volunteers supervised by Mike Mamula.

In the flag-raising ceremony, one player from each league will be a member of the Color Guard. League vice presidents will be assisted by "Miss Little League" Rita Payne in the presentation of certificates to team sponsors.

Rita's reign will end when a panel of judges, comprised of two boys from each league, selects her successor. Each team is permitted to nominate one candidate for the title. The girl must be between the ages of 8 and 12. The name, ages, addresses and phone numbers must be turned in to league vice presidents by July 1.

## Auto Hobby Shop To Close July 1-2

The Auto Hobby Shop will be closed for inventory on July 1 and 2. The Carpenter and Electronics Hobby Shops will be closed June 29 and 30.

# 'Warm Thanks' in Letter From President to Capt. Blenman

The Shrike replica and mementos presented to President John F. Kennedy commemorating his China Lake visit June 7 drew strong praise from the White House this week.

In a letter to Captain Charles Blenman Jr., the Chief Executive expressed his delight with the "handsomely designed replica of the Shrike."

He said the replica plus photographs and a specially prepared briefing book "will be excellent mementos of my most enjoyable visit to your facility."

"I want to convey my warm and sincere thanks to all who participated in this thoughtful gesture," the letter concluded.

# Forced Landing at SCI Creates 'Runway No. 36'

Scott Richard Kroeger of 320 B Metropole Sta., Avalon, took off from El Monte Airport and headed for Santa Catalina Island. He is employed at Catalina Airport for the summer.

Piloting a Piper Cub without radio gear, he relied on a compass and a watch. Failure of the watch caused miscalculation of time and distance over the channel. Above an overcast, he proceeded toward visible land, believing it to be Catalina. 'Walk or Swim' Alas it was not. Scott knew his fuel was low for a return trip. He made a snap decision between "a long walk or a long swim." He decided on the long walk. Making a perfect landing with no damage to the plane, he came down at approximately 7 p.m. on a roadway now dubbed "new (Continued on Page 8)

# Helpful Hints For Safe July Fourth

The Kern County Safety Council opened a double-barreled Fourth of July safety campaign aimed at traffic accidents and drownings.

"Everyone deserves a safe, happy Fourth of July holiday," said George Parker, Safety Council president. "It is up to all of us to help make this possible by eliminating accidents on the highways and waterways of our nation.

"Though traffic accidents are still the nation's prime killer, they were outnumbered in some states by drownings over the last Fourth of July holiday."

Last year's Fourth of July holiday traffic toll was 440 lives. Drownings and boating mishaps claimed 160 lives. Other accidents, including fireworks, firearms, heat exhaustion and falls killed more than 100 persons.

"The Fourth of July is almost always celebrated outdoors," Parker said. "This means travel, swimming and sporting events, coupled with their inherent hazards. To get the most out of all these activities we must remember safety—safe driving and safe play means going by the rules for the protection of yourself, your family and others."

He stressed two points:

1. Everyone should learn to swim. It's the best possible insurance against drowning.
2. Install and use automobile seat belts for all driving, near home and on trips.

## CHAPLAIN'S MESSAGE

# In Behalf of Second Best

By Chaplain Robert C. Fenning



The late World War II newspaperman Ernie Pyle captured the hearts of the folks back home by writing about tired, mud-slogging GI's. His subjects were the royalty of the rear ranks, the kings of the commonplace.

We seem to have arrived at a time in our history when there appears to be little interest in anything short of the spectacularly superb. In this frenzied rush of things, this race to the moon at all cost, specialized excellence is so much in vogue that the curtain seems drawn on the faceless throng that have not been able to keep up.

Is it possible that we are making a serious mistake? In our search for the best, do we not become very poor when we lose sight of the steady people we call the second best?

We read about a Midwestern university that unveiled a tablet to one of its alumni who was an undistinguished man. In his undergraduate years he never had been president of anything. For four years he had gone out for first team and never did he have a chance to play in an important game. His scholastic average barely hovered about the B's.

When World War I came, he served in a minor capacity in a medical unit, and one day met his death trying to help a wounded man under fire. The French Government posthumously awarded him the Croix de Guerre.

His alma mater unveiled a tablet in his honor, and the inscription that appears on it is this: "He played four years on the scrubs — he never quit."

## The Rocketeer

Official Weekly Publication of the U. S. Naval Ordnance Test Station China Lake, California. Captain Charles Blinnman, Jr., USN Station Commander. "I. I. T." Bibby Public Information Officer. Jack G. Broward Editorial Advisor. Richard Gruenberg Managing Editor. Budd Galt Associate Editor. Chuck Mangold Special Services Athletic Director.



Christian Science (Chapel Annex) Morning Service—11 a.m. Sunday School—11 a.m. Protestants (All Faith Chapel) Morning Worship—8:30 and 11 a.m. Sunday School—9:30 a.m., Groves and Richmond elementary schools. Roman Catholic (All Faith Chapel) Holy Mass—7, 9:30 a.m. and 12:30, 5:30 p.m. Sunday, 6 a.m. Monday through Friday, 8:30 a.m. Saturday. Confessions—8 to 8:25 a.m., 7 to 8:30 p.m. Saturday, Thursday before First Friday—4 to 5:30 p.m. NOTES Hebrew Services (East Wing All Faith Chapel) Every first and third Friday, 8:15 p.m. Sabbath School every Saturday morning.

## PROMOTIONAL OPPORTUNITIES

Present Station employees are encouraged to apply for the positions listed below: Applications should be accompanied by an up-to-date Form 58. The fact that positions are advertised here does not preclude the use of other means to fill these vacancies.

Accounts Maintenance Clerk (Typing), GS, 520-5, P.D. 188002, Code 8811 — Prepares budgets, procurement and work requests, maintains ledgers, personnel records and files, prepares reports and correspondence.

Supv. Purchasing Agent, GS-20204, P.D. 325006, Code 2574 — Negotiating purchase agreements and supervising purchase of supplies and services.

File Application for above positions with: Mary Morrison, Room 34, Bldg. 34, Phone 72002.

Clerk-DMT, GS-4, P.D. 32418, Code 5056 — As secretary to Branch Head, performs general secretarial-clerical duties consisting of typing reports and correspondence, acting as office receptionist, filing, and general office-clerical functions.

Deadline for filing application is July 5. File Application for above position with Pat Dettling, Room 31, Bldg. 34, Phone 71393.

OFF-STATION JOBS General Supply Assistant, GS-6 55035 p-a, Photographic Div., Area of Consideration: 11th and 12th Naval Districts. Forward Form 57 to Code 752, Ft. Arguello, Lompoc, Calif. no later than July 12.

Electrical Engineer, GS-11, 58575 p-a, Public Works Dept. Area of Consideration: 11th and 12th Naval Districts. Forward Form 57 to Code 752, Ft. Arguello, Lompoc, Calif. Open until filled.

CLERK EXAM CLOSES As of July 1 the Clerk-Typist, GS-2 examination announcement will be closed.

PASADENA To apply for vacancies, contact Nancy Reardon, Pasadena Personnel Division, Ext. 104. An up-to-date SF-58 must be submitted when applying for vacancies.

Motion Picture Specialist (Producer/Director), GS-11, Code P75231 — Responsible for all phases of motion picture production and direction, and direction of contract personnel assigned to photography, editing, and writing. Position is located at Pasadena but will require frequent trips to San Clemente Island, Long Beach, and other range areas.

## Navy Relief Ball Set

The 1963 Navy Relief Ball is set for Saturday, June 29, 1963 at the Naval Reserve Training Center, U.S. Naval Station, Long Beach.

Tickets are \$1 per person. Each ticket, in addition, is an opportunity to win a 1963 Galaxie Ford, a washer, a dryer, a deep freeze or hi-fi.

Entertainment by Charlie Barnett's big band from 8:30 p.m. to 1 a.m. Wear your uniform. Buy several tickets NOW.



REPORTS TO NAF — LCDr. William A. Odman has reported to the Naval Air Facility as maintenance officer. Collateral assignments will include project pilot duty. Prior to reporting here he served as administrative officer of VA-155 at the Lemore Naval Air Station. He and his wife, Patricia, are the parents of five children.

## 'DESERT PHILOSOPHER'

# The Cowpoke, A Way of Life



By "POP" LOFINCK

They're a vanishing class. Because there are so few career cowpokes these days—they're comparatively well paid—\$250 a month or more.

A top rank cowpoke in most cases was raised with cattle. He's often the son of a cowpoke — sometimes the grandson of a cowpoke. It's a way of life.

### COWS GET MORE ATTENTION

They don't just follow a herd of cattle down a road. They must spot a sick cow at a distance, and know what to do about it. Cows are more valuable than steers, so they get closer attention.

One man gets a rope around a cow's horns or neck — another man gets a rope around a hind leg and while the horses keep the ropes taut a cowpoke pours a bottle of medicine down the cow's throat. The cow doesn't make much fuss because she's sick. But cattle don't get sick so often these days, because the salt blocks have additives of whatever is lacking in the area, such as iodine, sulphur, iron or whatever. But cattle still have to be looked after by cowpokes. Sometimes a cow gets an abscess under the tongue from the irritation of fox-tail grass — which must be lanced and cauterized.

Cowpokes shoe their own horses with soft malleable iron shoes that can be pounded into proper fitting shape cold, or heated over a camp fire. They always carry extra shoes in their saddle bags.

They put up with weather conditions the way they find it.

They put in long hours — but wouldn't do anything else.

In the early days they were called cowboys — because any rugged individual regardless of age — was called a tough old boy — so cowboy.

### WHY THEY'RE CALLED COWPOKES

The term cowpoke or cow puncher evolved from a specific chore they had to do. In transporting cattle to market on the railroad, often a steer would get down on the floor of the cattle car. So at every train stop, the "cowpokes" who rode in the caboose would walk the length of the train with a long stick — to prod the downed steer back on its feet so it wouldn't get trampled. Hence "cowpoke" or "cowpuncher." And the term has stuck with them to this day.

A rancher in Southern California or Nevada may have only 2 or 3 full-time cowpokes — (then at round-up time they hire a round-up crew — more about that later.)

The grazer pays a regular fee of so much per head per month to the Bureau of Land Management for the grazing privilege. Under the Taylor Grazing Act.

### RIDING THE WASHES AND CANYONS

The regular full time cowpokes load their horses into a truck and drive out to the area they're going to inspect. Unload their horses and ride the washes and canyons — observing feed conditions — cleaning out springs — putting out salt blocks and looking for sick cows or a young bull that didn't get branded. They must know from experience where to look for cattle.

Getting the horses into the truck requires little urging — experienced horses like to ride, like dogs do.

Cowpokes seldom eat lunch. While breakfast is cooking they dig a hole — build a fire in the hole and before they leave sink a specially designed iron kettle with meat, vegetables and everything — cover the special lid with coals and dirt — so when they return at night their supper is cooked.

In the Mojave Desert there are two round-ups a year. The cattle are in the desert during the winter. Come June they are driven to the high mountains where the grass is lush from the deep snows.

### GUARDING AGAINST RUSTLERS

The cowpokes job then is to guard the cattle against rustlers — after meat for their camp.

From the mountains the two-year-old steers go to market, fat. The cows and yearling steers are brought back to the desert for the winter, if there has been enough rain to produce enough feed—enough grass and weeds for grazing. It doesn't take much — but the less bunch grass there is, the more miles the cattle have to walk to get enough to eat. The last two years have been a problem for the grazers. Some have had to feed their cattle hay all winter in a pasture. That's expensive.

At round-up time the rancher hires a professional round-up crew — (similar to the threshing crews that work the mid-west wheat harvest from south to north.) They help a rancher round up his cattle. They have a truck for a chuck wagon and a good cook.

Then they help another rancher round up his cattle, etc. When all the round-ups are completed they play the rodeo and win money because they've been in practice all the while.

### BIG MONEY AND BROKEN BONES

One cowpoke I know won \$10,000 at Madison Square Garden one season. But he has had so many broken bones I wonder if he sometimes thinks it's worthwhile. It's rough being a champion bulldogger or bronco buster.

When the rodeo season is over they may go out to catch wild horses to train or sell to rodeo promoters.

More about cowpokes next week.

# RIM SHOTS

By BILL VALENTEEN



No matter where a man ventures—over land, sea, into the air, or outer space—he cannot go without someone racing hell-bent to beat him there.

This penchant for being first to get Anywhere or Nowhere has even gotten as far, and as deep, as the muddy Florida swamps, where a fella driving in circles is soon passed by another joker who—in a gushing spray of slime—is anxious to get back where he started before anyone else.

That, believe it or not, happens each year near Naples, Florida, when a hardy breed of big boys slop through the ooze riding monstrous, home-made mud machines in the wierdest and by far dirtiest race on the face of the Earth: the Swamp-Buggy Derby.

At the end of the rainy season, when the mud of the Big Cypress swamps and adjoining Everglades is goeey enough to bog down an alligator, enthusiastic volunteers soak it down still more with fire hoses, churn it into sticky slop with bulldozers, hollow out deep water holes, and toss in several slimy logs and sharp rocks. The purpose is not, as you may think, to form a barricade against enemy invasion, but merely to prepare a challenging race course before signalling the competitors to go at it.

### ALL KINDS OF MUD-CHURNERS

With the customary crack of the pistol, the Swamp Buggies attack the muck. These vehicles are as varied as human inventiveness and insanity can make them, being powered by motors ranging from four-cylinder Model A engines to Cadillac V-8s. Some have four wheel drives, some have two, and still other have six-wheel drives.

Tires come from tractors, cars, and airplanes, and other parts are fashioned from anything up to and including kitchen sinks. According to Derby rules, each Bug must be equipped with two men and a box suitable for storing hunting gear. One weird entry, called a "Grasshopper," bucked and leaped through the swamp in the last Derby, proving that it was able to outrun its more "conventional" competitors. It was disqualified, however, for carrying only one man.

Needless to say, not all Buggies make it without some pushing, and while the race officials deny ever having lost a man beneath the muck, there are less opportune ways to disappear and never be found.

### TITLE AND MUCH-NEEDED BATH

To the winner goes the title of Swamp Buggy King and a much-needed bath. No big prize money, no national fame, and no kiss from a pretty girl. The gals, you see, enter the next race themselves—a Powder Puff event—and, oh, mudder!

### STEAM UP ON LOCAL DIAMONDS

The local baseball scene is beginning to pick up some steam and if you're not participating in some way in one of the leagues yourself, you ought to at least avail yourself of some of the daily nighttime activity.

The 15-16 year old boys, for example, have four teams in hot contention for the Colt league crown and most of the players are just old enough to give you a real show. The kids, being so young, give the game a lot more zest because they have not yet learned how to pace themselves, nor have they fallen into all of the unnecessary habits that usually delay the game so much.

Keep smilin', Sport! See you next week!

## Major League

(Games Start at 6 p.m.) Monday, July 1 Dodgers-Giants (Diamond 3) Tigers-Pirates (Diamond 4) Tuesday, July 2 Yankees-Dodgers (Diamond 3) Pirates-Red Sox (Diamond 4) Thursday, July 4 China Lake Little League Fourth of July Program. Friday, July 5 Red Sox-Yankees (Diamond 3) Giants-Tigers (Diamond 4)

## Minor League

(Games Start at 8 p.m.) Monday July 1 Indians-Cardinals (Diamond 1) Athletics -Eagles (Diamond 2) Tuesday July 2 Braves -Indians (Diamond 1) White Sox - Athletics (Dia. 2) Thursday July 4 China Lake Little League Fourth of July Program. Friday July 5 White Sox-Braves (Diamond 1) Cardinals-Athletics (Diamond 2)

## Farm, T-Ball League

(Games Start at 6 p.m.) Monday July 1 Angels - Cubs (F) (Diamond 1) Senators - Lions (T) (Diamond 2) Tuesday July 2 Padres - Reds (F) (Diamond 1) Orioles-Terriers (T) (Diamond 2) Wednesday July 3 Buccaneers-Senators (T) (Dia. 1) Lions - Orioles (T) (Diamond 2) Wednesday July 3 (Game starts at 8 p.m.) Cubs - Padres (F) (Diamond 1) Mounties-Angels (F) (Diamond 2) Thursday July 4 China Lake Little League Fourth of July Program. Friday July 5 Reds-Mounties (F) (Diamond 1) Terriers-Buccanneers (T) (Dia. 2)

## Courtesy Is Key For Boaters, Too

Courtesy on the water is the key to boating safety, according to the Kern County Safety Council, which is currently calling attention to National Safe Boating Week June 30 - July 6. Here are a few rules for courteous boaters: Sailboats and rowboats have the right-of-way over powered craft in almost all cases. Keep clear of the large commercial and government vessels — your small craft can maneuver easier and quicker than they can. Watch your wake. It can cause serious damage, and you are legally responsible.

## 'Charter Member' Caddies



CADDY PROGRAM gets underway at China Lake Golf Course with a "flag raising" ceremony at the 18th hole. Pro Paul Someson poses with Wayne Smith, Patty Bracken, Craig Clark, Ricky Wolf, Larry Abney, Brian Rockwell, Scott Lilly and Sharon Roberts. Patty and Sharon aren't caddies, but they sure helped doll up the photographic ceremonies.

## Who's in First Place in Pony League? Everyone!

At the end of the second week of play all six teams of the Indian Wells Valley Pony League were tied for first place with records of three wins and three losses.

Monday's games saw the Yankees take a close one from the Indians 6-5, while the Reds beat the Cards 14-7, notwithstanding Mike Mead's home run.

The Cards bounced back Tuesday and edged the Cubs 5-4, with Ted Sprouse of the Cubs belting 2 homers. The second game resulted in a win for the Tigers over the Reds by a score of 4-1.

Pitching Duel Wednesday night's action featured a pitching duel between Mike Sorge of the Indians and Bobby Brown of the Tigers. The Indians won 4-1. The same evening the Cubs took a close decision from the Yankees, 5-4. Thursday night the Indians continued their winning ways by beating the Reds 4-1, while the Cards out-slugged the Yankees 16-14, on a game-winning two-run homer by Ken Potts in the bottom of the seventh. John Weber also hit a two-run homer for the Yankees.

Friday, the Cubs took an early lead over the Tigers and managed to hang on to it for an 8-6 victory despite Rick Roth's two-run homer for the losers.

The Pony League games continue with two games a night starting at 5:30 and 8 p.m.

Mid-Season Tryouts In an effort to continue to provide all boys of the ages of 13 or 14 an opportunity to play some baseball this summer, the Pony League is scheduling mid-season tryouts. Anyone interested should report to the Burroughs High School baseball field Monday, Tuesday or Thursday evening at 5:30, this coming week. Boys trying out will be assigned to the Braves farm team, from which they may be selected to fill a vacancy on the regular league team.

Applications will be available at the field at the time of tryouts or may be obtained from the Pony League refreshment stand.

The Braves are scheduled for two games a week with the Pony League Majors and also have three practices each week. Lt. (jg) Gomez is the Braves manager and he is assisted by George Pierce. Either of these men will welcome new boys to the Braves.

## Softball Schedule July 2

Merchants vs. Public Works	6:30 p.m.
NOTS vs. VX-5	8:30 p.m.

## July 3

NAF vs. Staff	6:30 p.m.
Public Works vs. NOTS	8:30 p.m.

## July 6

NOTS at Tehachapi	1:00 p.m.
-------------------	-----------

## Softball Standings

Team	Won	Lost
Merchants	15	0
NAF	11	6
Staff	10	6
Public Works	7	8
NOTS	4	10
VX-5	3	12

## SPORTS QUIZ

1. All of these men at one time were president of the American League: Ban Johnson, Ernest Barnard and Will Harridge. True or false?
2. The last time this Major League team played in a World Series, Jim Webb played short-stop, Ed Mayo was at second and Paul Richards was the catcher. Name the team and the year.
3. Only three Major League pitchers have ever hurled three no-hit, no-run games. Cy Young and Larry Corcoran were two. Who was the third?
4. Movie stars Buster Crabbe and Johnny Weismuller first achieved fame as swimmers. Both were winners in the Olympics. True or false?
5. In the 1956 World Series against the Dodgers, Don Larsen pitched a perfect game. Who was the losing pitcher? (Answers to Quiz)

1. True.
2. Detroit in 1945.
3. Bob Feller.
4. True.
5. Left Maglie lost the game.



'HURRICANE HUNTERS'—Crew of Airborne Early Warning Squadron 4 poses beside Super Constellation WSC-121 upon arrival here from U. S. Naval Station, Roosevelt Roads, Puerto Rico. They discussed plans for additional instrumentation for "Stormfury" operations.

## Wisconsin Professor Summer Consultant

John L. Asmuth, associate professor of electrical engineering at the University of Wisconsin, is one of 15 summer consultants spending the summer at NOTS to assist in the Station's research and development programs.

This is the first summer for the Wisconsin professor at NOTS. He has been assigned to the Aviation Ordnance Department and is working with Dr. Tom Amalie's group.

Professor Asmuth earned his BS degree in electrical engineering from New York University and during the World War II years worked at MIT's Radiation Lab.

He entered the University of Wisconsin in 1946 as a graduate student and received his MA degree in 1948. He served as assistant professor of electrical engineering at Wisconsin until 1950, then worked for two years at the Army's Aberdeen Proving Ground.

He then returned to Wisconsin as an assistant professor to work for his Ph.D. degree. In 1959 he was named assistant professor, the post he occupies today.

The professor and his wife, Eleanor, and their two boys, Charles, 13, and Richard, 10, plan to visit California's national parks, Mt. Whitney, and to tour



JOHN L. ASMUTH

Southern California, during their sojourn here. This is the first time the Asmuths have been west of Denver.

### MEET

## Your Councilman

(This is the first in a series offered by the Rocketeer to better acquaint residents with new Community Council precinct representatives.)



BOB GLEN

Precinct 6 representative to the Community Council is Bob Glen, a management analyst with Central Staff, presently assigned to the "HITAB" project with Code 40.

The youthful councilman is a graduate of Stanford University and holds an M.A. degree in public administration from UCLA.

He came to the Station in June of '61, under the Management Intern Program.

A sports enthusiast, he is a member of the local golf and ski clubs, and serves as the Council's liaison to the Recreation Committee.

He also serves as executive secretary for the Council in addition to being a member of the Council's housing committee.

Since the Council aims at being the focal point for citizens and community desires, he asks that residents of Precinct 6 call him at Ext. 76153.

Bob and his Ohio born wife, Rhodan, reside at 100-A Forestal.

## AOA Conclave Here Praised As Success

"One of the most successful and informative symposiums on safety factors in handling propellants and explosives" was the comment of Russel G. Perkins of the Armed Services Explosives Safety Board as the two-day meet on propellants and explosives ended here Thursday.

A safety engineer with 17 years experience in the field, Perkins remarked that information acquired here will be invaluable to those in the propellant field.

The two-day event hosted by NOTS was sponsored by the Propellants and Explosives Section of the American Ordnance Association.

In attendance were 16 representatives from 10 Army, Navy, and Air Force installations, augmented by NOTS' Propulsion Development Dept. employees, and 25 representatives from 16 industrial firms engaged in the manufacturing of propellants and explosives.

General chairman for the meet was Al Camp, a former employee of the NOTS' Propulsion Development Dept. for nine years, now associated with Lockheed Propulsion Co., Redlands.

Chairmen of the technical sessions were Dr. John F. Gall, Pen-salt Chemicals Corp., and Dr. A. M. Ball, Hercules Powder Co.

Harold J. Gryting of NOTS' Propulsion Development Dept. coordinated the meet.

### AOA Purpose

AOA is a national society of American citizens who believe in armament preparedness and industrial readiness as our country's guarantee of security and peace.

As one of its principal functions, AOA provides National Technical Divisions and sections which are constantly and immediately available in an advisory capacity to the ordnance branch-

## 'Hurricane Hunter' Group Here From Puerto Rico

Airborne Early Warning Squadron 4, one of the famed "Hurricane Hunter" group from the U. S. Naval Station, Roosevelt Roads, Puerto Rico, spent five days here last week conferring

with personnel of the Earth and Planetary Sciences Division headed by Dr. Pierre St. Amant.

The purpose of the squadron's visit was to discuss plans for additional instrumentation in the Super Constellation aircraft which will be used in "Stormfury" operations.

The Hurricane Hunters also talked with representatives of Meteorological Research, Inc., and Electro Optical Systems, Inc., to determine the feasibility of additional experimental instrumentation which may ultimately further increase the data-taking capabilities of the squad-

ron. One of the major instrumentation systems proposed was a system to give immediate read-out of all presently measured parameters on punched teletype cards.

Members of the visiting Super Connie WSC-121 crew were Cdr. Russell Blalack, squadron commander; Lt. Tom Abraham; Lt. (jg) Dan Collins, meteorologist; Lt. (jg) Easton Haymond, navigator; Lt. (jg) Dave Gastony and Lt. (jg) Al Atkins, pilots, and 17 enlisted men. Accompanying them was Paul Lindgren, Lockheed technical representative.



AOA OFFICIALS — Capt. Griswold Atkins, USN (Ret.) watches as Al Camp, former NOTS employee and general chairman of the two-day AOA meet here, points out a Station facility to Dr. A. M. Ball, Dr. John F. Gall, sessions chairman; and Col. Henry C. Taylor, USA (Ret.), director of public relations for the American Ordnance Association.

# Capt. Holmquist Leaves China Lake

## Cdr. C. W. Heck to Retire, Served Nearly 3 Decades



C.W. HECK — Then From Seaman, First . . .



C.W. HECK — Now . . . To Commander

Commander Chester W. Heck, Head of the Command Administration Department here, is scheduled to retire from the Navy this month, ending nearly three decades of service that began in early 1934.

The one-time enlisted man who served eight years in the battleship USS Idaho, came here for duties in Oct. 1960 as Experimental Officer.

Born in Cincinnati, Ohio, where he joined the Navy, the three-striper earned his commission as a Warrant Officer in 1942.

His subsequent sea duties were in the USS Chenango, USS Shangri-La and USS Yorktown. Instructor duties at the General Line School, Newport, R.I., Bureau of Ordnance service as Chief of the Ammunition Research Section and a tour of service as Ordnance and Training Officer with MAAg, Lisbon, Portugal, are included in his tours of shore duty.

Commanded Ammo Depot Heck commanded the Naval Ammunition Depot, Mare Island, and served as Officer-in-Charge, Mare Island Annex, immediately prior to his transfer to China Lake.

Married and the father of three children, Chester W., Jr., 13, Bernie, 11, and David Lee, 8, Cdr. and Mrs. Heck presently live on the Station at 603-A Lexington.

### Facilities Closed Independence Day

All business facilities at Bennington Plaza, including the Station Library, and the Bank of America, will be closed Independence Day, July 4.

### EXCEPTIONS:

The Station Theatre and Snack Bar, the Main Bowling Alley, the Golf Course and Snack Bar, will observe normal hours of operation.

### HAMS To Meet

Anyone interested in Amateur Radio is urged to attend a special meeting of the Indian Wells Valley Amateur Radio Club at 7:30 p.m. July 1, in the clubhouse located next to the base hobby shop. The purpose of this meeting is to discuss reorganization of the club. Refreshments will be served.

### CPO Dance Tonight

The Tempos will provide the music tonight, starting at 9 p.m. at the Chief Petty Officers Club's semi-monthly dance.

## Takes Command Of Training Device Center

Captain Carl O. Holmquist, Technical Officer for the Naval Ordnance Test Station, departed China Lake this week under emergency orders to take command of the Naval Training Device Center, Port Washington, N. Y.

One of the Navy's leading uniformed scientists, he had served here since Sept. 1961.

A native of Salt Lake City, Utah, where he attended grade schools, he was graduated from the Naval Academy in 1942. He subsequently served his first tour of sea duty in the destroyer USS Dunlap, earning WWII combat decorations in south Pacific engagements.

### Degree, Doctorate

Capt. Holmquist won Naval Aviator wings from Pensacola in 1945 and returned to the Naval Postgraduate School to earn a BS degree in aeronautical engineering in 1950.

He continued his formal studies at the California Institute of Technology, gaining his Doctorate in aeronautics in 1953.

His duties have included project engineer, test pilot and chief engineer of flight testing at Patuxent River, Md., during the years 1953-1957.

### Special Aide to SecNav

He served as Project Coordinator for the Bureau of Aeronautics in the Navy Department in 1957-1958, and subsequently was ordered to the Office of the Chief of Naval Operations. He later served as a Special Assistant to the Secretary of the Navy for Research in the office of the Hon. James H. Wakelin, Assistant Secretary of the Navy for Research.

He was ordered here for duties immediately following his assignment with Sec. Wakelin's office.

In his capacity as Technical Officer for the Station Capt. Holmquist has participated in major projects conducted by NOTS in the past two years.

### Active in Community

An extremely active member of the China Lake community during his tour of duty here, Capt. Holmquist left vacant this week the office of president of the local PTA.

He and Mrs. Pat Holmquist have jointly participated in numerous community activities in youth and social levels.

Capt. and Mrs. Holmquist resided with their children Kurt, Derek, Kristen and Gunnar, at 503 Essex on the Station.



CAPT. CARL O. HOLMQUIST, USN

Leaves NOTS To Take Command Of The Naval Training Device Center, Port Washington, N.Y.

## Farewell Letter

To all of my friends at NOTS:

Due to an emergency, I have been ordered to assume command of the Naval Training Device Center, Port Washington, New York. By the time you read this, I shall have departed.

I hope you can understand the regret that I feel in being unable to say good-bye to all of you in person. Unfortunately, the myriad of preparations involved in clearing the debris from my desk, combined with the actual physical relocation of myself and my family, will take up the majority of the time in these last few hours prior to my departure.

Actually, the exigency involved is a sort of blessing in disguise—if I had to face the reality of saying farewell to all of you in person, I might find myself less inclined to the immediate task. Besides, I could not possibly convey in a word or handshake, the deep feeling of gratitude that I will carry with me. Be assured, however, that the relationships to which my family and I have been exposed here at NOTS will occupy a warm spot in all our hearts for many years to come.

I leave you, then, carrying with me a fond hope that we shall meet again on several occasions, secure in the knowledge that you will support my successor with the same enlightened spirit that you afforded me. I sincerely wish you the very best that life can offer, and that your days will be filled with constant success.

Good-bye.

Carl O. Holmquist, Capt., USN

## Ballet Society Scholarship Winners

Three young ballet dancers have been selected as the winners in the coveted China Lake Ballet Society Scholarship Awards.

They are Janie Evans, daughter of Mr. and Mrs. Charles N. Hollon; Leanne Lippincott, daughter of Cdr. and Mrs. Lincoln H. Lippincott, and Michele Reck, daughter of Capt. and Mrs. Floyd Reck.

The scholarships will cover tuition for a two-week program of intensive study at the Carmel School of Classic Ballet at Carmel, Calif.

Judges for the competition were Mrs. Jane Bachinski, Mrs. Jane Bickford and Mrs. Mabel Phipps.

Winners were chosen for ex-

ecution of standard movements employing their best poise and form. Then followed one and a half minutes of an original composition with music selected by the student.

When first conceived in 1961, the China Lake Ballet Society had for its objective the furthering of the cultural and social heritage of the children of this community by providing them with the opportunity to learn the art of the classical ballet. Awarding these three scholarships was the realization of a long desired goal.

At present, the Society employs but one instructor, Mrs. Pat Holmquist, but she is leaving for Port Washington, N.Y., where her husband, Capt. C. O.

Holmquist, is taking command of the Naval Training Device Center there.

The Society asks that anyone interested in teaching ballet this fall should send a resume to the China Lake Ballet Society, 619 Ticonderoga.

## Major League Tickets For Military, 50¢

The Dodgers and Angels extend an invitation to military personnel to attend their home games in uniform for only 50¢. Check local newspapers for current game schedules. For bus schedule information see the USO Clubs or MTA Depot at 6th and Main (RI 7-4455), in Los Angeles.

# Review Progress on 15th Anniversary of NOTS Pasadena

## Underwater Research is Primary Role

By VIRGINIA LANE

Happy anniversary, old-timers. July 1, 1963 marks the fifteenth year since the Navy took over from General Tire and Rubber Company and employees were converted to Civil Service.

Does it seem only 15 years ago that NOTS, Pasadena was in its infancy? Many of us still see familiar faces that were new acquaintances in July 1948.

According to the records, 430 persons were transferred from GTR to Civil Service. A recent survey reveals approximately one-fourth of these NOTS pioneers, including some who began with CalTech, are still on board.

When NOTS assumed control of the various CalTech groups in 1945, it negotiated with General Tire and Rubber Company to operate the machine shops and maintain the Foothill Plant. GTR had previously held a contract with CalTech for rocket production.

There is consequently a period in the history of NOTS Pasadena when some people were working for the Navy but were actually in the employ of GTR. Some of these people worked at Foothill and most of them were eventually converted to Civil Service status and employed by NOTS.

The coordinator was William H. Saylor, later associate director for Pasadena.

NOTS inherited from CalTech many research and development scientists and engineers in addition to technology research tools, and development facilities. The Variable-Angle Launcher was in the planning stage and completed in 1948.



ASROC, antisubmarine rocket, now fully operational in the fleet, dramatically illustrates one aspect of the work at NOTS Pasadena, in the field of underwater ordnance engineering and research.

in 1948.

Although the development of underwater ordnance was one of the principal reasons for the establishment of a Pasadena activity of NOTS, another important mission was being fulfilled.

### Start of Engineering

The Design and Production Department, now called Engineering Department, was established in 1949 to see that preliminary designs for rockets, torpedoes and guided missiles were adapted to manufacture.

Beginning with a group at CalTech during the war, the idea of building small-scale models of rockets and torpedoes for testing in wind tunnels, water tunnels and tanks was fostered. The Tank (VAT) in Bldg. 5 is the result of need for greater testing facilities.

### Rapid Progress

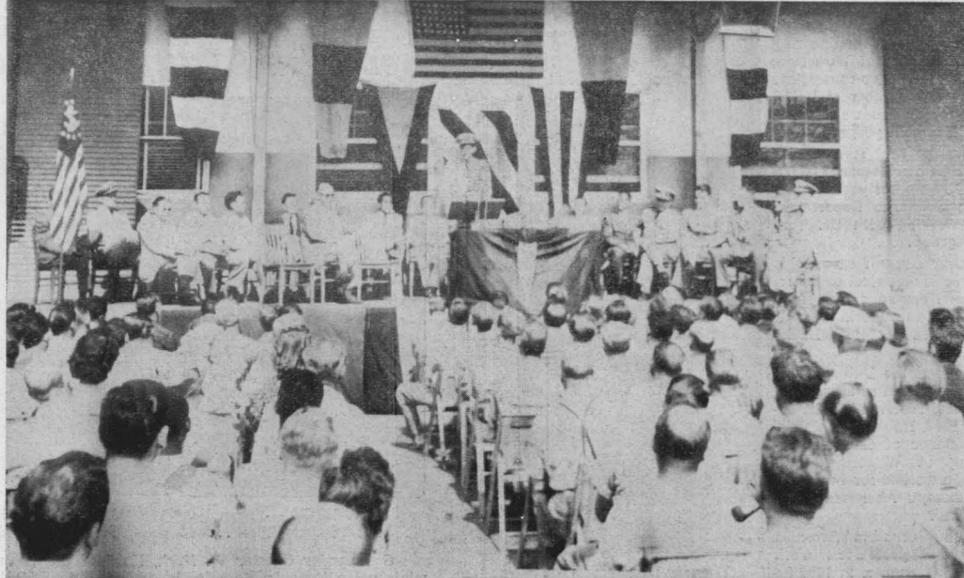
By 1951, three years after the conversion, partly due to the rapid development of the Underwater Ordnance and the Design and Production Departments, and partly as a result of the Korean crisis, the number of employees rose to 1300. Four locations were now occupied — Green Street, Foothill, Morris Dam, and Thompson Laboratory.

In 1952 Green Street was vacated and personnel moved to Foothill and Thompson Laboratory.

By this time the need for sea ranges became apparent. Weapons taking shape needed to be tested in Fleet environments. A test range for air drops and surface firings at Long Beach was acquired. Another was established at SCI, 60 miles off the California coast.

### Consolidation

In 1954 a consolidation move-



JULY 1948—Ceremonies held at Foothill marked the conversion of General Tire and Rubber Company to Navy Civil Service. Approximately 430 persons made the conversion.

ment took place. The Design and Production Department was divided three ways — into a new Engineering Department, a new Technical Information Department and a new division of the Underwater Ordnance Department.

The first two established headquarters at China Lake. The third remained at Pasadena. Representatives of other departments whose duties could not be performed efficiently at China Lake retained their Pasadena offices — source inspectors, purchasing agents, patent division, industrial planners, a documentary film group and the necessary personnel and public works people.

### Complement of 870

Total number of personnel has leveled off to approximately 870. About half of these are in the Underwater Ordnance Department. Pasadena employees include 228 engineers, mathematicians and scientists. There are 24 persons with Master's Degrees and 6 with PhD's.

Many of those remaining from GTR and CalTech days are still performing in the same positions for which they were hired way back then. Seeking to inject a bit of nostalgia on our 15th anniversary, some candid tales were told.

### Early History Recalled

Ruby Todd, Head, Personnel Security, has had a hand in keeping the station "secure" since

the day she came aboard with GTR in February 1948. When the shipyard closed in 1949 Ruby's supervisor, being low on the totem pole retention-pointwise, volunteered to transfer to China Lake. Ruby, a veteran, moved into the supervisory position and has remained there.

Ruby says one of the most embarrassing incidents to happen to the Security Office was the loss of a set of personal history records. They just happened to be those of the Assistant Officer in Charge, at that time, Cdr. E. J. McConnell. "I had a mighty red face," says Ruby.

Telephone Operators Versatile Peggy Nichols, Chief Telephone Operator, marvels at the flexibility the girls at the switchboard displayed then, sashaying from Foothill to Green Street to Thompson Lab, working various shifts on the three switchboards from the period 1951 to 1955. There were also two tele-

type offices going full blast during this period of the Korean conflict.

### Early Secretary

Communications Branch Head, Lynn Jordan, was our topnotch secretary in those days. She came aboard in April 1948 as secretary to the Officer in Charge, Cdr. (now Capt.) H. D. Hilton. She served two succeeding OinC's — Cdr. W.A. Hasler and Cdr. A. S. Goodfellow (now both captains). The Command Administration Office was housed in Bldg. 5.

"Most vivid memories of those days," muses Lynn, "are the multitudes of notes taken at the weekly conferences held for forming the plans for the GTR conversion to Navy."

Lynn put aside her shorthand in 1951 and assumed the position she now holds today.

### Ken Sherman Reflects

Works Shops Division, reflects on his past duties since his days

with General Tire. "NOTS has grown tremendously," says Ken, "and its people have grown with their increased responsibilities. The accomplishments of the past 15 years have been significant."

"Being a factory man in private industry since my career days began, I naturally had some adjustments to make. It took somewhat of an act of Congress to effect the GTR conversion and it will take an act of Congress to get rid of me," says Ken affectionately of his Civil Service "alma mater."

### Bob Leard Reminisces

Quality Engineering Division Head, Bob Leard's reminiscing begins in 1943 with CalTech. Transferring to GTR in August 1945, he then converted to Civil Service in July 1948. Bob became part of the Design and Production group organized in 1949. In a consolidation movement in 1954, part of this group which is now the Engineering Department moved to China Lake.

Bob and his wife, Letty, were the first couple to meet and marry while both worked for CalTech at the Green Street location.

Bob brought to mind the physical layout of the Foothill location at the time, recalling the



DOUGLAS J. WILCOX

Wherever research is pursued, development is sure to follow.

NOTS, Pasadena, is a prime example of this theory, for in 15 years it has grown from a testing organization to a major research, development and test laboratory of national recognition.

Such accomplishment results only from high-quality technical work. And that is possible only through the efforts of high-quality technical personnel and support personnel. We have them here in an efficient military-civilian team.

It is most rewarding to me personally as well as professionally to associate with this team and to serve the Navy in my capacity as Head of the Underwater Ordnance Department.

### D. J. WILCOX

Head, Underwater Ordnance Department

period when Bldgs. 3 and 4 were machine shops and inspection areas.

During the conversion of Bldg. 3 to office space, one could hear a chorus of typewriters merrily clacking out the day's business while trucks breezed along the thoroughfare in the same area also carrying out their daily duties.

### Many Improvements Made

The Station has been through several stages of repair and improvement since then. An addition here and there, various changes in office partitions and boundaries and now the new entranceway.

Through it all, the business of researching, developing and testing new missiles for fleet readiness, continues as usual.



CAPT. E. I. MALONE, USN

The future of the Navy is absolutely dependent upon the Navy's ability to project itself into the future through the exploitation of science. This depends, in turn, upon the quality of the research and development which is done in advancing technologically and upon the caliber of the scientists and engineers who do this work.

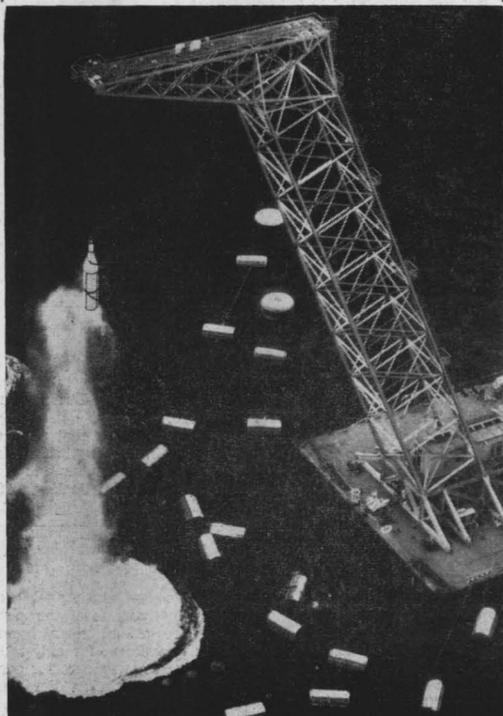
NOTS Pasadena has, since its inception, attracted the highest quality of technical people. It has been in the forefront of underwater weapons development, it is unique in the numbers and quality of the successful program which it has accomplished and today is involved in a large number of programs of even greater potential and significance.

My tour as Officer in Charge has been uniquely rewarding for the challenges it has presented, the successes we have seen and most particularly for the opportunity it has presented to be associated with the outstanding scientific and engineering personnel here.

These people, without doubt in my mind, represent the Navy's future.

CAPTAIN E. I. MALONE  
Officer In Charge

## Polaris



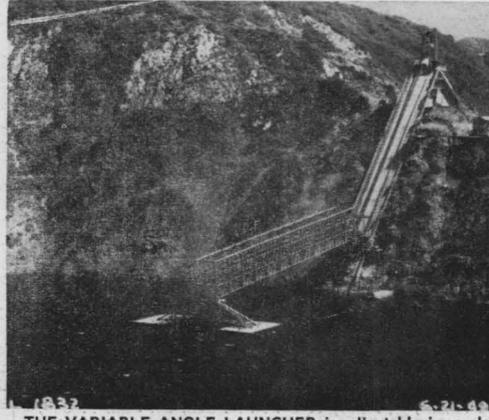
THE GIANT FISHHOOK CRANE has been used to test the Polaris missile since early phases of the program at the NOTS San Clemente Island facility.

## Fixed Angle Launcher



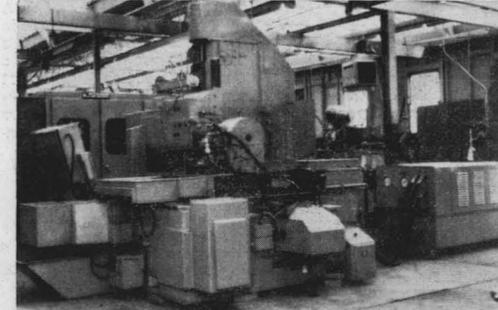
THE FIXED ANGLE LAUNCHER, during WW II, was the most valuable facility at the Morris Dam Test Range for simulating torpedo launchings with its 19 degree angle of launch.

## Variable Angle Launcher



THE VARIABLE ANGLE LAUNCHER is adjustable in angle from 0 to 40 degrees. Aircraft or vessel torpedo launchings can be simulated over a wide range of velocities and entry angles.

## Numerical Control

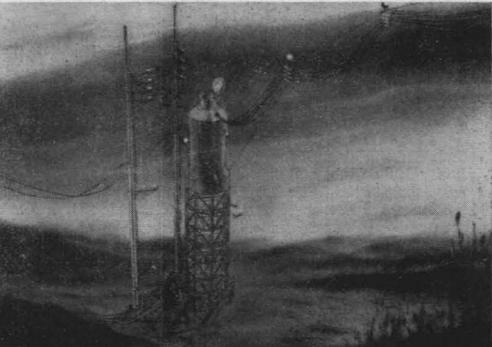


THIS NUMERICALLY-CONTROLLED MILLING MACHINE is another first at NOTS since we are the first Navy Laboratory and believed to be the first government lab to obtain such a machine.

## Long Beach Range



AT LONG BEACH AND SEAL BEACH facilities are test ranges. Also at Long Beach is a staging area for Polaris missiles on their way to San Clemente Island for testing.



NEW VARIABLE DEPTH FACILITY at San Clemente Island has removable platforms enabling test firing of Polaris from various depths. High speed underwater cameras mounted on camera towers extending from the ocean floor to 10 feet above the surface record trajectory data.