

Pearson, Rinehart Co-Author a New Book On Metals

John Pearson, Head of the Detonation Physics Group, Research Department, and Dr. John S. Rinehart, Professor of Mining Engineering and Director of the Mining Research Laboratory at the Colorado School of Mines, are co-authors of the book "Explosive Working of Metals" recently published by Pergamon Press (London) and distributed in this country through The Macmillan Company.

This 350-page book treats the theory and practice of the many metal working operations available or under study in the rapidly developing explosive metal working industry, a field which Mr. Pearson has pioneered at this Station during the last 12 years.

Written in two parts, the book first treats the theoretical aspects of explosions in air, water and soil, and their effect on metals; it then discusses the practical use of explosives in the forming, sizing, flanging, cutting, hardening, compacting, and welding of metals.

Pearson and Rinehart have co-authored many other publications including an earlier book "Behavior of Metals Under Impulsive Loads" published by the American Society for Metals in 1954 and by the Foreign Literature Publishing House (Moscow) in 1958.

Acey-Ducey Club Slates Christmas Party

The Acey-Ducey Club will hold its annual Christmas party on Thursday, Dec. 19. Music for the event will be furnished by the "Californians," a 10-piece band, starting at 9 p.m.

Time to Enter Christmas Home Decorating Contest

The annual China Lake-Ridgecrest Christmas Home Decorating Contest will again be co-sponsored by the China Lake Community Council and the Ridgecrest Chamber of Commerce.

Entrants may enter only one of the four categories — door, window, outside yard or the sweepstakes. Each of the three categories (door, window and outside yard) will have a first, second and third prize of \$25, \$15 and \$10 respectively. The sweepstakes category which requires door, window and outside yard decorations will have only one prize of \$50.

Preliminary judging will be conducted Friday, Dec. 20 between 6 and 11 p.m. Final judging will be conducted by three judges on Saturday, Dec. 21.

Each entry will be judged on artistic merit, originality, ingenuity and lighting techniques.

All entries must arrive at the Ridgecrest Chamber of Commerce office no later than 5 p.m., whether they are mailed or personally delivered. All residents are invited to participate. Any questions may be directed to Richard Frederick of the China Lake Community Council or Ralph Nuckolls of the Ridgecrest Chamber of Commerce as co-chairmen of the contest.

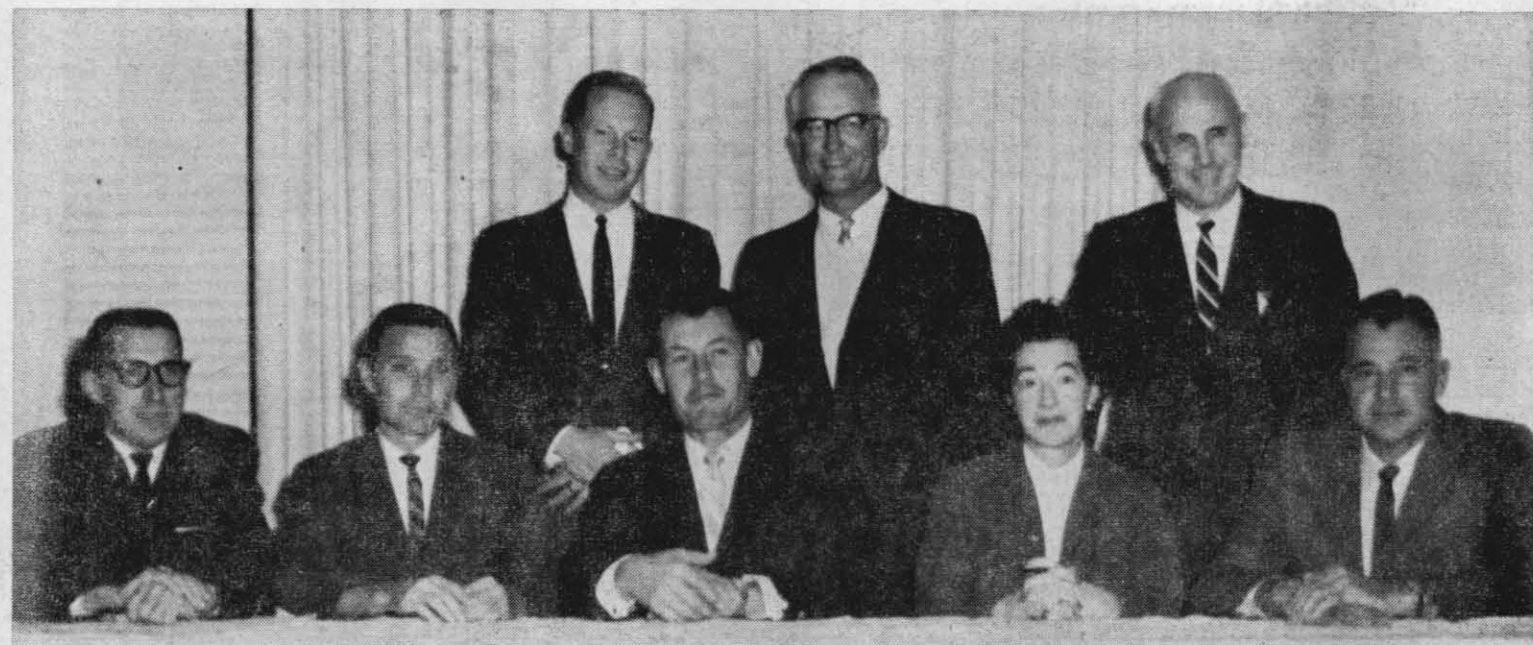
1963 Christmas Home Decoration Contest Entry Blank

I will have an entry in the following division of the Christmas Home Decoration Contest, sponsored jointly by the Ridgecrest Chamber of Commerce and the China Lake Community Council.

- Check one:
() Door Decoration
() Window Decoration
() Outside Yard Decoration
() Sweepstakes (requires door, window, and outside yard decorations).

Name _____ Phone _____
Address _____

Entries must arrive at the Ridgecrest Chamber of Commerce office, 230 W. Ridgecrest Blvd., not later than 5 p.m. on Dec. 19. Judging will be done on Dec. 20 and 21 from 6 to 11 p.m.



COM ADVISORY GROUP—Three new members were elected to the Advisory Group of the Commissioned Officers' Mess (Open) at the annual membership meeting Tuesday evening. Seated (l-r) are new members Dr. William Simecka, Leroy Riggs, and Cdr. Lee Clapp with current members Maura McCreery, Cdr. Jack Speciale, and (standing, l-r) Dr. Ronald Von

Huene, Hal Turner, and Bill Hampton. Other members not present for picture were LCDr. Marv Warner, Harley Tillitt, LCDr. Bill Abney, and Bard Monson. Retiring members are Lt. Col. "Tex" Ritter, John DiPol, Maj. "Tex" Montague, and Dr. Pierre St. Amand.

Funeral Services for Sturgeon Tomorrow At All Faith Chapel

Funeral services for Jack E. Sturgeon, Test Department employee, will be held tomorrow at 9 a.m. at the All Faith Chapel.

The Rev. W. D. Davis of Inyokern will conduct the services. Interment will follow in Desert Memorial Park.

The veteran Station employee died early Wednesday morning in the Trona Hospital following a heart attack.

Dorman B. Eaton of New York, a leader in the civil-service reform movement, was the first president (now called chairman) of the Civil Service Commission under the 1883 Civil Service Act. He is also credited with having drafted legislation which became the Act.

SHOWBOAT

FRIDAY DEC. 13
"GUN FIGHT AT COMANCHE CREEK" (90 Min.)
Audie Murphy, Colleen Miller
7 p.m.
(Western in Color) Detective attempts to smash outlaw gang that forces men to join it and then double-crosses them when the price on their head gets high enough. Bullets in Colorado! (Adults and Young People).
SHORT: "High Seas Hijacker" (7 Min.) "Leaping Dandies" (10 Min.)
SATURDAY DEC. 14
--- MATINEE ---
"JALOPY" (63 Min.)
Bowery Boys
1 p.m.
SHORT: "There They Go Go" (7 Min.) "African Jungle No. 10" (16 Min.)
--- EVENING ---
"THE CASTILIAN" (129 Min.)
Caesar Romero, Frankie Avalon
7 p.m.
(Adventure in Color) The legend of Fernon Gonzales is depicted as the Spanish people divest the shackles of weak-kneed rulers and prepare to fight invasion of the Moors. Action Galore! (Adults and Young People).

SUNDAY-MONDAY DEC. 15-16
"SINGING IN THE RAIN" (103 Min.)
Gene Kelly, Debbie Reynolds
7 p.m.
(Musical in Color) Two silent film stars latest picture flops as sound comes to the screen so it's dubbed and changed to a musical. Production numbers and lifting tunes — this is a classic. (Adults and Young People).
SHORT: "Claws in Lease" (7 Min.)
TUESDAY DEC. 17
"20,000 LEAGUES UNDER THE SEA" (127 Min.)
Kirk Douglas, James Mason
7 p.m.
(Adventure in Color) Scientist Captain Nemo and the Nautilus sink an expedition trying to locate a sea monster and takes prisoners to his undersea lab. This Disney film of Jules Verne's story is a must for young and old. Superb excitement. (Adults and Young People).

WEDNESDAY YOUTH CONCERT DEC. 18
Lee Lockhart "Sounds of Music"
3:30 p.m.
"20,000 LEAGUES UNDER THE SEA" (127 Min.)
Kirk Douglas, James Mason
7 p.m.
THURSDAY-FRIDAY DEC. 19-20
"LAST TRAIN FROM GUN HILL" (94 Min.)
Kirk Douglas, Anthony Quinn, Caroline Jones
7 p.m.
(Western in Color) A mayor finds the slayer of his wife is the son of an old friend who is now a cattle baron. Suspenseful battle of emotion until the showdown gun blasting duel.
SHORT: "To Beep or Not to Beep" (7 Min.) "The Devil Take Us" (Safety First - 17 Min.)

Aetna, Blue Cross Agents Here Dec. 16-18
Howard Keenan, Aetna Insurance representative, will be at the Community Center on Monday and Tuesday, Dec. 16-17, from 9 a.m. to 4:30 p.m. for consultation.
John Shelley, Blue Cross representative, will be at the Community Center on Wednesday, Dec. 18, from 1 to 4 p.m. for consultation.

Santa Was Once a Slim Jim; Americans Fattened Him Up

New York (AFPS) — Santa Claus wasn't always the fat jolly-looking old man that he is now. The original European version of St. Nicholas was a tall, thin, angular man on an equally spare horse.

The early English settlers in the American colonies gave him a "new look" when they adopted the Dutch version of "Saint Nicholas" whose name was later contracted to "Santa Claus." Years later, in 1882, Clement

Moore, a professor of divinity in a New York theological seminary, wrote his famous poem, "The Visit from Saint Nicholas."

It is believed that he did most to bring to life the tradition of the merry Santa Claus with a sleigh, reindeer, twinkling eyes, ruddy cheeks, a nose like a cherry, and a round little belly that shook with gay laughter as the beloved Saint held his rotund sides.

CROSSWORD PUZZLE
ANSWER TO PREVIOUS PUZZLE
ACROSS
1-Equality
4-Shakespearean
9-Containing
12-Poem
13-Benefit
14-Macavity
16-Testify
17-Checked
19-Ingross
21-Inquire
22-Word of sorrow
24-Number
25-Finocchio
28-Distance measure (pl.)
29-Weaken
31-Stitch
32-Click beetle
34-Part of "to be" (colloq.)
37-Hindu symbol
38-Compass point
40-Post for portrait
42-Equality
44-Govern
46-Heavenly body
48-Crony (colloq.)
50-Possessive pronoun
51-Negative
53-Lure
55-Climbing device
58-Passageways
61-Beverage
62-Raises
64-Period of time
68-Obscure
69-Wealth
71-Covered cloth
DOWN
1-Steel container
2-Fruit drink
3-Amend
4-Rage
5-Open to view
6-Parent (colloq.)
7-Goddess of healing
8-Census of olives
9-Graded
10-Exist
11-Wander
15-About idly
16-Assault
18-Doctrine
19-Affirmative
22-Extent
23-Openwork fabric
27-One defeated
28-Garment
30-Weaken
32-Armed conflict
35-Knock
38-Noses
41-Kind of bicycle
43-Rodent
45-Servant
47-Ward
49-Gain knowledge
52-Fixed period of time
54-Unmarried woman
55-Young boy
56-Mohammedan name
57-Female ruff
58-Before
59-Weaken
63-Cooled lava

Report New TV Relay Station Ready Next Week

The new microwave relay station on "B" Mountain, assuring vastly improved television reception in this area, probably will be in operation some time next week.

If tests now being made on the system progress as planned, the changeover should be complete prior to Dec. 20, William R. Hattabaugh of the Public Works Dept. reports.

Collins Radio Co. of Dallas, Texas, has the responsibility to install and check out the system and to demonstrate its ability to meet NOTS' general performance specification.

All seven channels — 2, 4, 5, 7, 9, 11 and 13 — will be available for Indian Wells Valley residents. Tests will continue until all channels have been checked out completely.

Viewers are asked to be patient during these tests because some of their programs may be interrupted briefly. However, every effort will be made to reduce off-air time to a minimum consistent with adequate field tests, Hattabaugh said.

The prime reason for the TV system modification is to eliminate existing interferences with other television transmissions in the communities to the north and east of China Lake.

The secondary reason is to improve present transmission quality and improve maintainability and reliability of the system.

A subsequent article will provide residents with recommendations regarding their present antenna systems. Meanwhile it is recommended that antennas be left just as they are.

NOTS Public Works Department personnel are being assisted in the work on "B" Mountain and on Laurel Mountain by men from the Collins Radio Co. A field supervisor from that company will also be here to take part in the testing phases.

When all installation and testing is completed, the new system is expected to increase the broadcast signal to the entire area by nearly 100 percent.

ROCKETEER FROM UNDER THE SEA TO THE STARS
Vol. XVIII, No. 49 NAVAL ORDNANCE TEST STATION, CHINA LAKE, CALIFORNIA Fri., Dec. 13, 1963

Laud Divers For Work On Key NOTS Projects



TYPICAL OF OPERATIONS performed by NOTS divers is work involving a KG underwater cutting torch which uses hydrogen-oxygen and air for burning.

From POLARIS And SUBROC to 'Angels of Mercy'

By NOVA SEMEYN (NOTS Pasadena)

"The work at NOTS is like nowhere else in the country," Diving Officer Lt. (j.g.) James E. McDole observes, recalling especially the work done on POLARIS and SUBROC.

On the SUBROC program, recently announced in the national press, divers assisted with underwater test facilities and recovery work at San Clemente Island.

They have provided support to the POLARIS program from its beginning—through installation of underwater facilities and its continuing maintenance.

Big Job on Translator
Most recently recalled was the work on the Translator. This unusual structure was designed for moving the submerged launch vessel at various horizontal velocities during Polaris missile test firings.

"We had to clean-up and remove some existing underwater range equipment," McDole said, "modify the existing launch pad structure, install and secure the 90-ton Translator structure."

"Also install the launch vessel, and go through final calibration tests."
During the 47 days of installing the cross-flow facility, the divers made 724 SCUBA dives and 80 dives in deep sea rig (Hard-Hat gear).

In a commendation to McDole and his men, Captain C. Blenman, Jr., ComNOTS, said: "The professional competence and individual skill of the diving personnel has been manifestly demonstrated in accomplishment of this task. It is noteworthy that precise placement of this complicated facility, with its 200-ton superimposed load would have been difficult even on shore."

Variety of Projects
This was but one job noted. The diving crew provides support to all NOTS projects involving underwater work, be it an engineering task, welding, burning, or explosives, to mention a few.

At Long Beach, the diving involves recovery of torpedoes as well as sound equipment evaluation. At Morris Dam, torpedoes that have been fired from the Variable Angle Launcher are recovered.

At San Clemente Island, underwater repairs to rigging and launch facilities at the POP-UP site must be maintained, projects supported, and recompressed.

(Continued on Page 4)

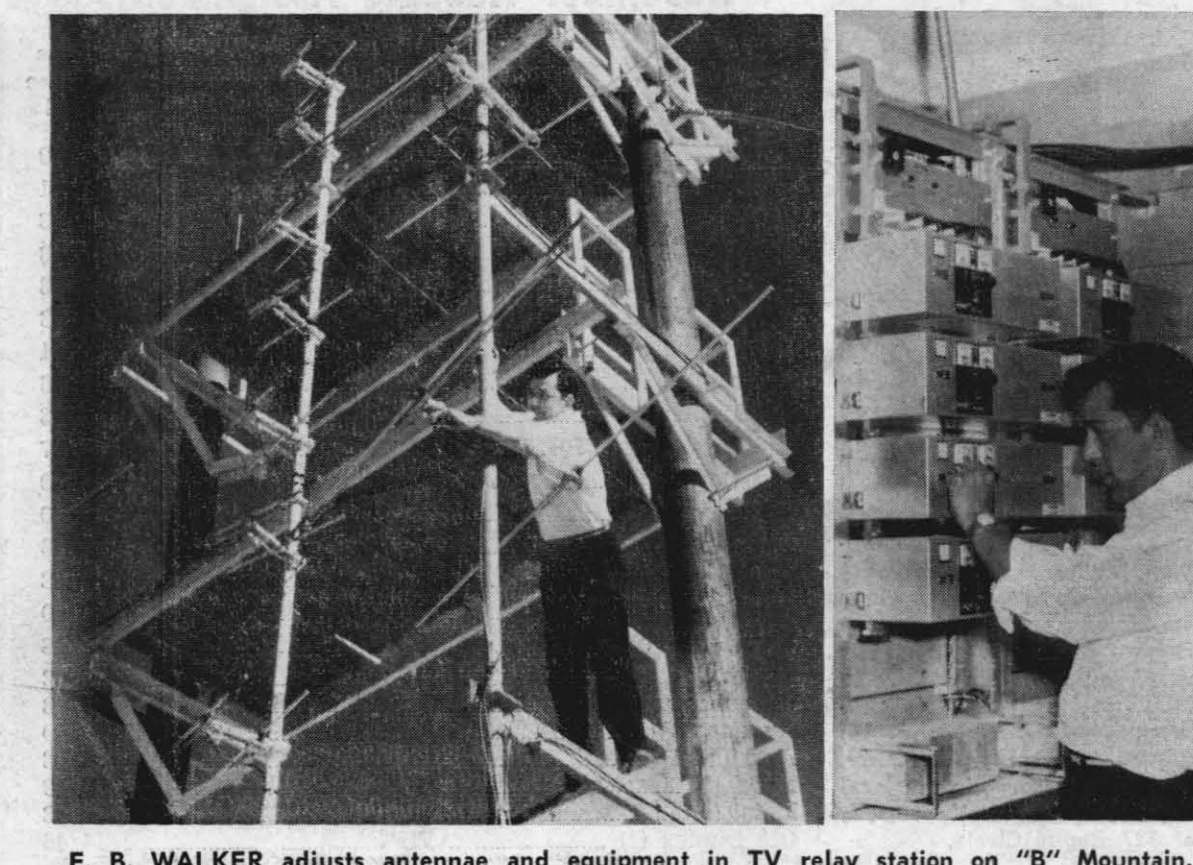
President Kennedy Medallions To Go On Sale Next Week

Because of the great demand for President Kennedy Medallions, commemorating his visit to NOTS, the Maturango Museum has arranged for another stamping of the medallions.

The new stamping should be completed next week, K. H. Robinson, president of the Maturango Museum Board of Trustees, announced.

Advance reservations for the medallions should be made by calling the Museum, Ext. 723683, on Saturday and Sunday from 2 to 5 p.m., or on Tuesday from noon to 4 p.m.

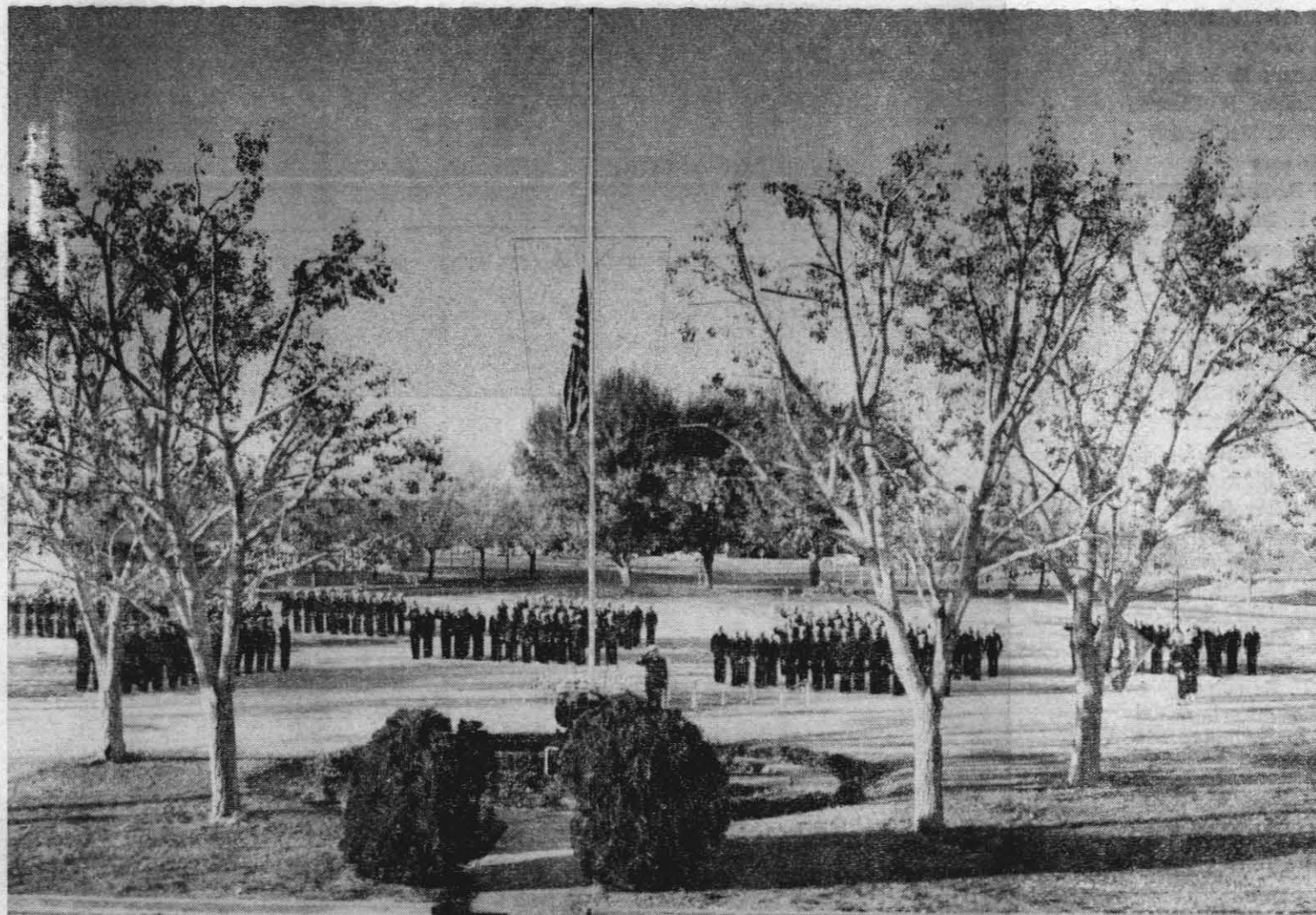
If received on time, the medallions will be sold — at \$1 each — on Friday, Saturday and Sunday, Dec. 19, 20 and 21, at the Museum from 2 to 5 p.m.



F. B. WALKER adjusts antennae and equipment in TV relay station on "B" Mountain.

From _____ PLACE STAMP HERE
TO _____

Autumn Air Adds Snap to Inspection



Three Enlisted Men Presented Awards by CO

Mother Nature "dressed ship" in the Mojave Desert last Friday morning for the year's final personnel inspection of NOTS' 300 officers and enlisted personnel.

Inspection officer was Captain Charles Blenman, Jr., Com-NOTS, who presented three awards to enlisted men Jesus Luevaneos, CS1, Lee Mascarello, PH2, and Ray B. Penwell, MT2.

NOTS personnel participating in the intramural football competition as members of the NOTS-VX5 grid team were given special trophies and praised for their "spirit of competition."

Luevaneos and Mascarello drew letters of commendation from the command for "distinguished performance of duties." Penwell was 1963's final "Blue-jacket of the Month" selection and last weekend travelled to Bakersfield as a guest of the Chamber of Commerce.

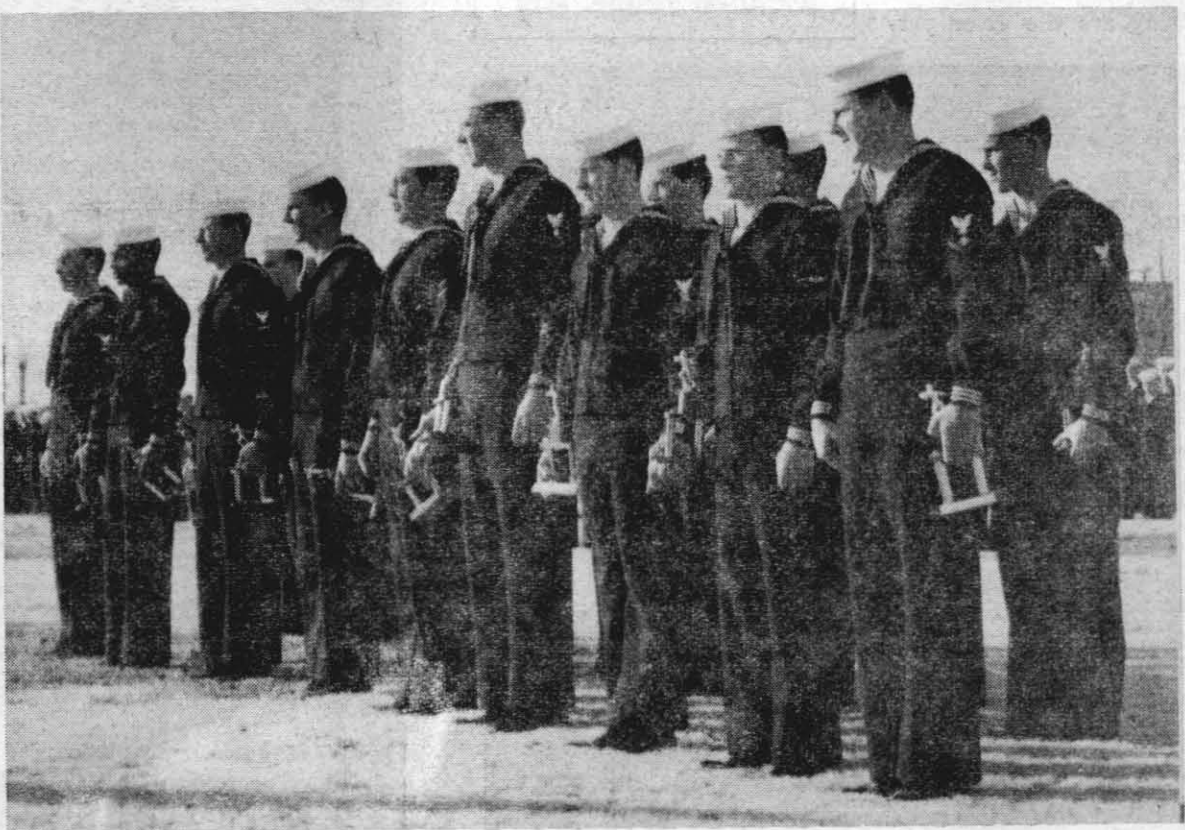
Participating in the ceremony was the NOTS Seaman Guard drill team that served as a color guard unit for the inspection.

PORTRAIT OF PATRIOTISM was painted by lens of photographer who covered Command's final inspection of 1963 last Friday morning across from Administration building. In-

spection formation of some 300 officers and men from NOTS served as a backdrop to colors at half-mast during 30-day period of mourning for the late President Kennedy.



CERTIFICATE OF MERIT and handshake from Capt. Blenman went to Ray B. Penwell, MT2, Command's "Bluejacket of the Month."



NOTS FOOTBALLERS participating in Command's intramural competition were presented trophies as a gesture of appreciation from

NOTS. Men from NOTS teamed with those of VX-5 for a combined squad that won co-championship honors.

VAdm. Schoech Reports on Naval Material Support

Following is a memorandum from VAdm. W. A. Schoech, Chief of Naval Material, which was directed to the Chiefs, Bureau of Naval Weapons, Bureau of Ships, Bureau of Supplies and Accounts, and Bureau of Yards and Docks:

For all personnel in your bureau and in their activities.

As most of you already know, the Naval Material Support Establishment was activated today at the direction of the Secretary of the Navy. Our initial pattern of operations is set forth in documents now in the hands of Bureau Chiefs and designated project managers.

With the gaining of experience and as adequate personnel become available for full staffing, our new organization will progressively assume its full responsibilities as set forth in General Order No. 5. We should attain this goal by July 1, 1964. You will remember that in a

memorandum dated June 11, 1963, I set forth to the Bureau Chiefs my personal feelings and philosophy regarding the purposes and modus operandi of our new organization. After five months of intensive organizational work, my staff and I, with the complete cooperation of the Bureau Chiefs and our Secretary's staff, have confirmed the soundness of the concepts expressed in that memorandum.

The material bureaus, each under the command of its respective chief, will continue to operate largely as they have in the past, but they in turn will be under the supervision and command of the Chief of Naval Material. He, under the Secretary of the Navy, will be respon-

sive directly to the Chief of Naval Operations and the Commandant of the Marine Corps for providing material support needs.

It is well known that our bureaus for many years have provided our Fleet and Marines with ships, aircraft, and weapons second to none. This praiseworthy accomplishment has been due in large part to the outstanding skills and dedication of you who have manned these bureaus and their activities all over the world.

With a continuance of this same fine performance on our part in the days ahead, plus the improved coordination and clarified lines of authority and responsibility inherent in our new organization, we have every opportunity for success. It is up to us—the challenge is ours!

I am proud to have worked with many of you for the last 20 or more years, and I am both privileged and happy to join you again.

Presents Analysis of Viet Nam Society

A Station lecture by David Pack of the Weapons Planning Group on "An Analysis of the Political, Economic and Social Aspects of Unconventional Warfare in Viet Nam" was scheduled for 9:30 a.m. today in Conference Room A of Michelson Laboratory.

Pack led a group of 12 members of the Brigham Young University faculty representing the fields of economics, anthropology, political science, history and geography in a study, begun late in 1960, of the Viet Nam society.

November Temps Above Normal, But 9 Days 'Froze'

Temperatures in November were above normal, with a mean of 54.5 and average maximum and minimum of 69.9 and 39.1, the Atmospheric Studies Branch of NOTS Instrument Operations Division reports.

Extreme temperatures were 82 and 29.

There were nine days with freezing temperatures. The average is seven. Precipitation amounted to 0.41 inches. Average is 0.33.

Temperatures continue to drop in December to a mean of 44 and average maximum and minimum of 59 and 30. Days with freezing temperatures increase to 21.

The record low, observed at the Instrumentation Lab, G-1 Range, was two degrees above zero, set last December.

Films and Speakers Ready For Wednesday's Weather Modification Program

Plans neared completion today for next Wednesday's 90-minute technical presentation of NOTS' efforts in the field of weather modification.

The program will start at 3 p.m. at the Station Theatre.

The theatre's 16 mm. sound projector will be used to show the Cyclops I film and other movies pertaining to the weather modification program. A 2x2 slide projector also will be used.

Joel Trimble of the Test Dept. is coordinator and will also act as master of ceremonies. Al Christman of the Technical Information Dept. will coordinate the filming.

As a technical presentation, the program is open to all Station employees, Station residents and the general public, too. Each automobile entering the Station will be given a special pass by the guard and be directed to the theatre. Upon completion of the program, off-Station visitors will deposit these special passes upon leaving the Station.

William Hampton, Technical Presentations Coordinator, is handling this phase.

Following is the agenda for the entire program:

- 3:00 P.M. — Introduction
- 1. Welcome and introduction — Joel Trimble, Test Department.
- 2. Cyclops I movie — 14 minutes.
- 3. Break — to permit late comers to be seated.
- 4. Dr. Wm. B. McLean — speaking for NOTS.
- 5. Dr. Pierre St. Amand — speaking for Research Department.

3:30 — Discovery of Pyrotechnic Generation of Silver Iodide.

Dr. William G. Finnigan — Research Department, Code 5056.

3:40 — Presentation of Research into Pyrotechnic Generation of Hydrosopic Material.

Dr. Lohr A. Burkardt — Research Department, Code 5052.

3:50 — Development of Propellant Grain for Generation of Silver Iodide.

Ronald F. Vetter — Propulsion Department, Code 4571.

4:00 — Development of Air-P.M. Airborne Dispensing Hardware.

John B. Burmeister — Engineering Department, Code 5521.

4:10 — Instrumentation for Recording of Meteorological Data.

Joel Trimble — Test Department, Code 3045.

4:20 — Seeding of Cumulus Clouds, Fog Dispersion, etc.

Cdr. Paul Jorgensen — Research Department, Code 502.

4:30 — Other Aspects of Weather Control.

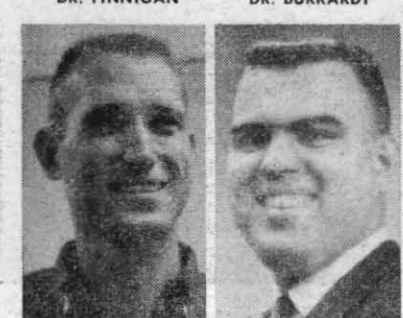
Dr. Pierre St. Amand — Research Department.



DR. MCLEAN



JOEL TRIMBLE



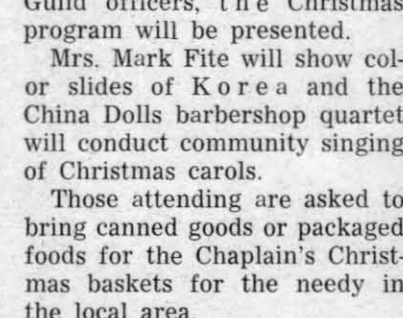
DR. FINNIGAN



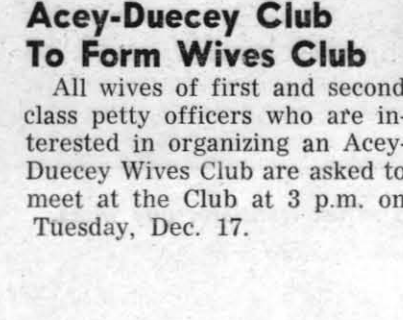
DR. BURKARDT



J. B. BURMEISTER



R. F. VETTER



CDR. JORGENSEN



DR. ST. AMAND

Waiter Said, 'President Kennedy . . . Sleep'

NOTS Couple Tell How News of Assassination First Reached Moscow



Harley E. Tillitt and his wife, Sylvia, had attended a ballet performance in the Kremlin Palace of Congresses on the evening of Friday, Nov. 22, following a day-long tour of Moscow educational institutions.

By 10:30 p.m., they were seated in the dining room of the Berlin Hotel, enjoying their dinner. An orchestra played dance music and there was the usual chatter of conversation in several tongues as a backdrop to this occasion.

Waiter Tries to Tell Them
A waiter approached the table, struggling for words in English that would convey his message of grief to the China Lake couple.

"President Kennedy . . ." he stammered, gesturing with his hands to indicate "sleep."

"This is how we got our first news that something had happened to the President," recalled Tillitt, who returned with his wife to China Lake last Monday, following a three-week tour of educational institutions in Scandinavia and the Soviet Union.

Tillitt, Associate Head of the Station's Test Department, accompanied his wife, who is principal of Murray junior high school, on the tour which was made by 90 American educators.

Lights Were Dimmed

"I remember that the lights were dimmed in the dining room shortly after the initial news broke in the hotel," continued Tillitt. He and Mrs. Tillitt returned to their room, joining other Americans staying at that hotel in a search for more information.

"Someone found a radio which we tuned in on a BBC broadcast, but the information was skimpy. One of those in the group tried the American Embassy, but all we could learn that night was that something had happened to President Kennedy."

"We spent the balance of the evening trying to piece together some facts from the fragments of news we had heard," he continued.

In the immediate days to follow, the band of American educators continued their tour on to Leningrad. They were able to watch the funeral ceremonies via Telstar transmission, "only through the kindness of a woman who worked in our hotel."

Offers Condolences
He recalls how she ushered him and his wife into the room of a permanent resident who had turned on the television set and offered her condolences through gestures of kindness.

It was not until the educators reached Finland, seven days after his death, that the full news of President Kennedy's assassination was disclosed through the U. S. Ambassador to Finland, Mr. Carl Rowan.

"There's no feeling quite like it . . . we were seven thousand miles from home . . . surrounded by peoples whose political, social and cultural beliefs are widely separated from our own.

He told of those who would state, simply, "It was a deep loss to America. But, an equally great loss to the world."

Rename Range Command Conference

The Commanders of the National and Service Ranges agreed to adopt the word "Council" in lieu of "Conference" as the name of the Range Commanders' organization, which hereafter will be referred to as the "RANGE COMMANDERS COUNCIL" vice Range Commanders Conference.

The word "Council" was selected because it denotes an assembly of a permanent group elected or appointed to constitute an advisory body for consultation, advice and discussion.

The Range Commanders Council was established in 1951 for an interchange of related information among the Range Commanders of the National Ranges (Atlantic Missile Range, Pacific Missile Range, and White Sands Missile Range) and the Service Ranges (Air Force Flight Test Center, Edwards AFB; Air Proving Ground Center, Eglin AFB; and the Naval Ordnance Test Station, China Lake) to aid in range support and development.

Women's Guild to Hold Meeting On Tuesday

The winter quarterly meeting and Christmas program of the Women's Guild of the Protestant Congregation of the All Faith Chapel will be held in the East Wing of the Chapel at 7:30 p.m. Tuesday.

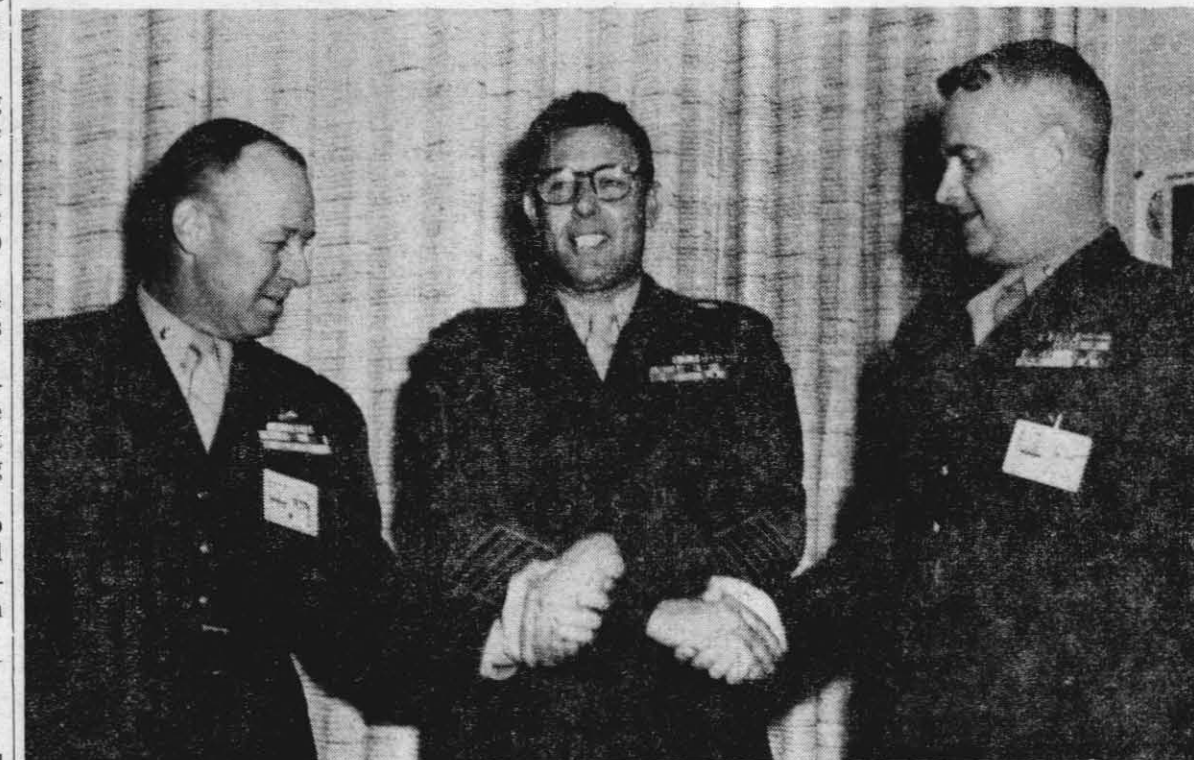
Following the election of 1964 Guild officers, the Christmas program will be presented.

Mrs. Mark Fite will show color slides of Korea and the China Dolls barbershop quartet will conduct community singing of Christmas carols.

Those attending are asked to bring canned goods or packaged foods for the Chaplain's Christmas baskets for the needy in the local area.

Acey-Duecey Club To Form Wives Club

All wives of first and second class petty officers who are interested in organizing an Acey-Duecey Wives Club are asked to meet at the Club at 3 p.m. on Tuesday, Dec. 17.



RETIREES AFTER 22 YEARS—M/Sgt. Ben A. Tidwell is congratulated by Lt. Col. D. L. (Tex) Ritter, NOTS' Marine Liaison Officer, and Maj. Robert Walker, Sidwinder Project Officer, on his retirement after 22 years with

the Marine Corps. Tidwell came to NOTS in July 1960 and has worked with both the Sidwinder and Chaparral projects. Tidwell has accepted a position with Associated Aero Science and will remain in the area.

DIVERS SEE DUTY AT SCI, LONG BEACH, MORRIS DAM

Some Hard-Hat, But Most Are SCUBA Dives

(Continued from Page 1)

tion facilities maintained.

Duty By Rotation

The men form two teams, rotating duty with a week at the Island, then a week at Long Beach. The Long Beach crew provide support for the Long Beach Sea Ranges and Morris Dam while their counterparts cover the Island needs.

"Ninety-five percent of our diving is SCUBA," McDole said. SCUBA stands for Self-Contained Underwater Breathing Apparatus. All of the diving at Morris Dam is Hard-Hat. That's the suit weighing a total of 190 pounds.

Just to give you an idea, here's how a Hard-Hat suit runs: Helmet, 54 pounds; belt, 83 pounds; suit, 18 pounds; and shoes, 35 pounds.

Though their work exposes them to the many perils of the deep, safety-consciousness can be summed up by Capt. Blenman's remark in his commendation: "There was no hesitation in working long hours . . . as long as diving time was not exhausted. Only through your outstanding knowledge of the problems and dangers involved in work at depths from the surface to over 150 feet was the installation (of the Translator) completed without a single serious accident or injury . . ."

'Angels of Mercy,' Too

Divers at SCI have often played angels of mercy as well. During the past four years, they

have been credited with saving the lives of 12 sports and commercial fishermen by fast action in getting them into recompression facilities.

Three such chambers are maintained on the Island. One ashore, another on the monitor barge, and a portable one on an LCM.

The average diver at NOTS has had about 15 years total military service, about 10 years of that time in diving. NOTS has six Master Divers, two Explosive Ordnance Disposal Divers, and the rest are all First Class Divers.

About the Divers
Diving Officer McDole reported to NOTS Pasadena, in July, 1962.

He entered the Navy in 1947 in a 2nd class diver's school on the USS Florikan. Subsequent sea duty has been aboard the USS Ajax, USS Jason, USS Jicarill, USS Badoeng Straits, USS Pandemus, and the USS Petrel.

He has completed training in several specialized schools during his military career including the Salvage School at Bayonne, N.J., Deep Sea Diving School at Washington, D. C.,

Explosive Ordnance Disposal School and Special Weapons Disposal School at Indian Head, Md.

In 1960, he received his commission while serving aboard the USS Yorktown en route to Pearl Harbor. Following his commission he was transferred to Limited Duty Officer School at Newport, R.I., then to the USS Petrel as First Lieutenant, Diving Rescue and Salvage Office, previous to being assigned to NOTS.

Wins Many Commendations

Lt. McDole has received about 25 letters of commendation for

diving feats, including the Navy Unit Commendation awarded him for participating in rebuilding marinerways in Adak, Alaska. Each of the 24 divers on that undertaking completed 750 diving hours on the project.

Lt. McDole was one of 26 divers assigned to salvaging parts of the Royal Dutch Airline DC-8 that plunged into 105 feet of water 13 miles off the coast of Lisbon, Portugal in May 1961. Ninety-five percent of the aircraft was recovered for purposes of investigation.

An expert in his field, so what does he do for recreation? Skin

dive, of course, often with his wife Susan joining him.

The McDoles have two children—Lisa, 8, and Mike, 7.

Asst. Diving Officer Lt. (jg) Robert H. Warren reported to NOTS Pasadena last February after a 30-month tour aboard the Attack Cargo Ship USS Thuban based at Norfolk, Va., where he served as Ship's Boatswain with duty in the Mediterranean and Carribean.

Served With Armed Guard

Lt. Warren began his Naval career in 1941. During World War II, he served with the Armed Guard in San Francisco on Treasure Island and in the Admiralty Islands.

Other foreign duty was with the Chinese Training Command at Tsingtao, China, during the years 1946-47.

For eight years, he was attached to Submarine Squadron 4 and Mine Evaluation Detachment at Keywest, Fla., where he also attended the Underwater Swim School for SCUBA. Previous to this, his diving career had its beginning at the Deep Sea Diving School in Washington.

Lt. Warren and his wife, Evelyn, have three children—Bobby 14, Judy 13, and Lori Ann 1½.

They Worked on Translator

Following are the diver per-

sonnel who participated in the Translator installation:

Diving Officers

Lt (jg) James E. McDole
Lt (jg) Robert R. Warren
CWO-4 D. J. McCafferty

Master Divers

Edmond B. Bennett BMCM
Clifford F. Buhl SFCA
Leslie C. Lamar BMCS
Frank J. French BMCS
Harold H. Stubbs BMC
Alvin M. Worthen BMCA

First Class Divers

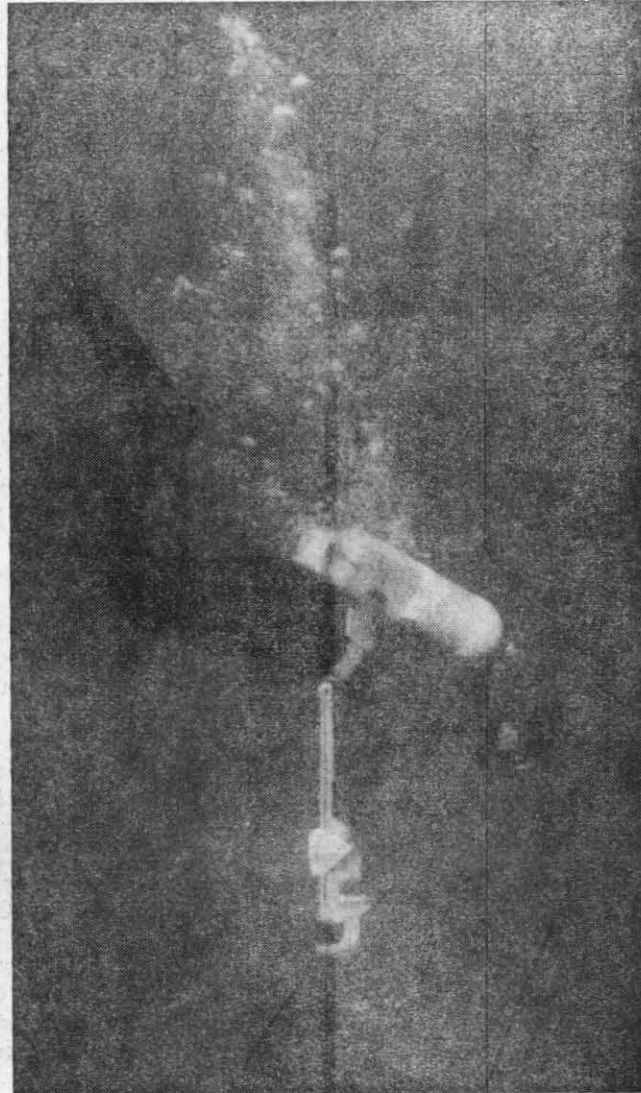
Francis T. Allen BM1
John A. Barr HMCA
Paul H. Benson EN1
William R. Blewett SF1
Robert W. Carroll BM3
Terrence M. Gallagher QMC
Jim A. Grills SK2
Albert W. Holmes HMCA
Herbert G. Jones HM1
Joseph A. Lussier ENCA
John N. Maxwell DC1
William P. Romaine EN1
Ernest B. Schwartz DCCS
William R. Slaughter BMCA
Edgar G. Smith ABF1
Richard Villasenor BM1
Bill F. Weeks DC1
John H. Willoughby BMC
William H. Williamson HM1



NAVY DIVER Paul H. Benson cleans rail of POP-UP Translator track.



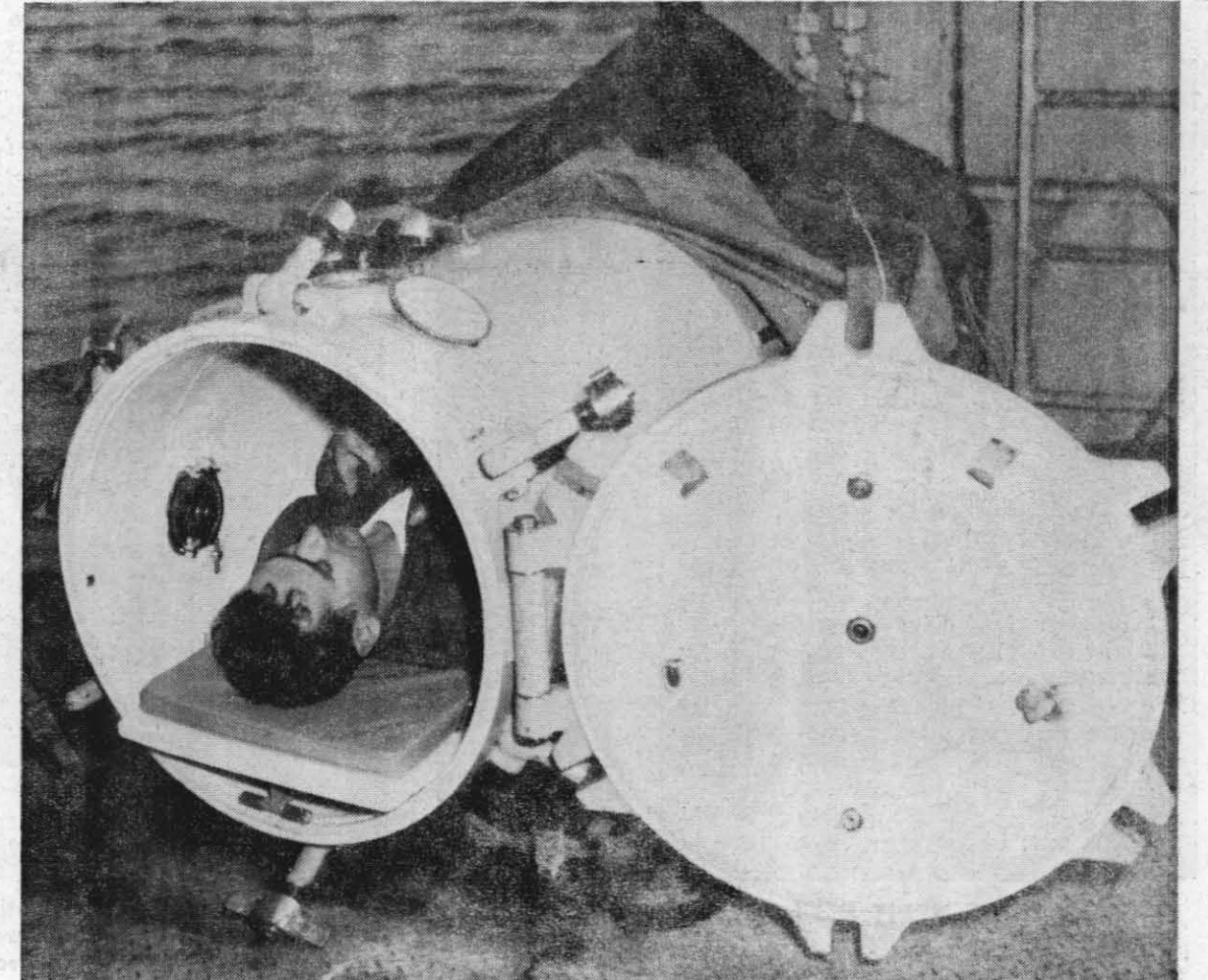
INSPECTING the launcher cableway.



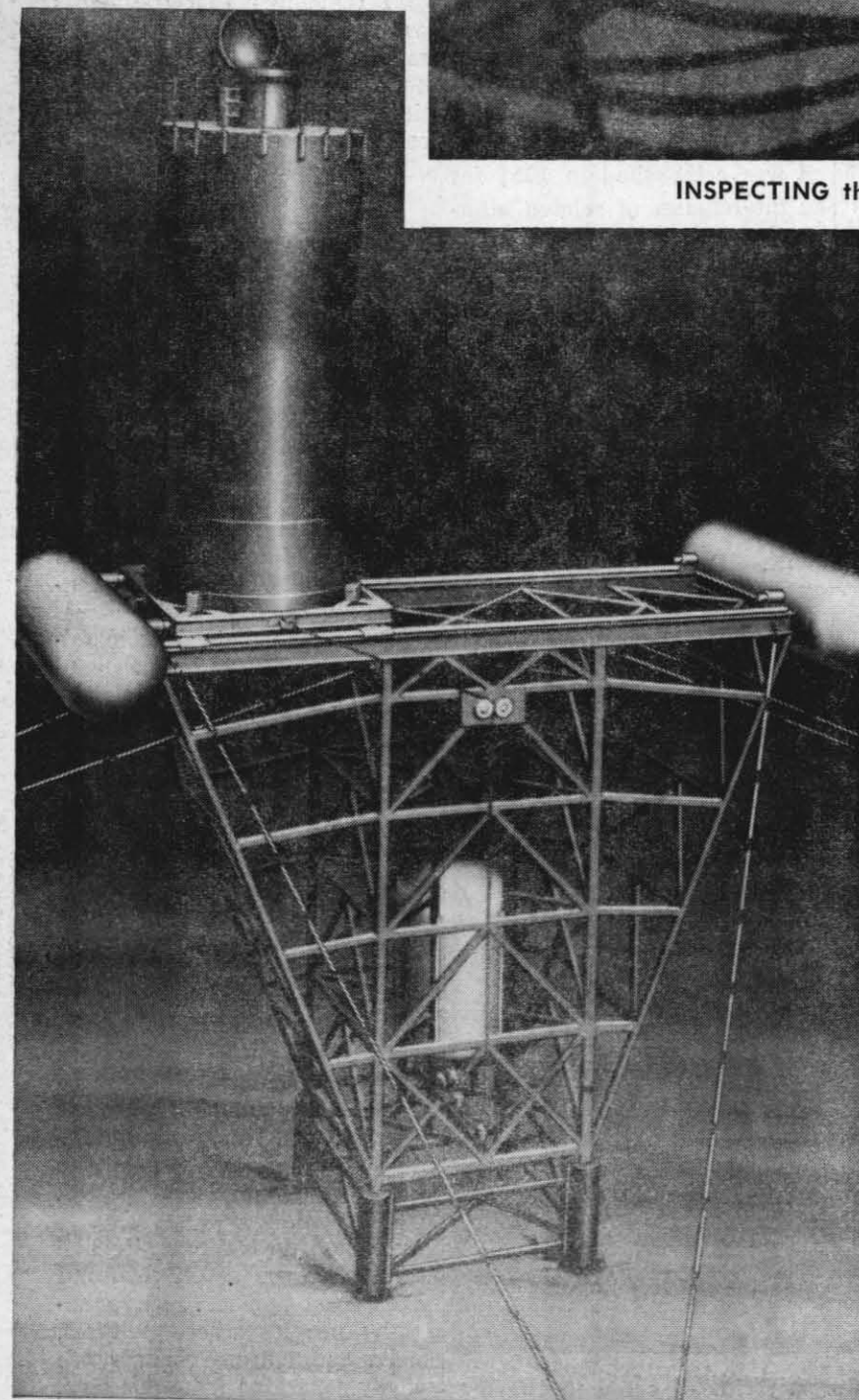
J. A. LUSSIER descends to the translator.



LT. (jg) JAMES E. McDole, Diving Officer, says "The work at NOTS is like nowhere else in the country."



DEMONSTRATING use of portable recompression chamber aboard LCM is Navy diver Joseph A. Lussier. It provides emergency treatment for caisson diseases (bends, etc.). Two larger double-lock chambers are maintained at SCI, one ashore, one on barge.



POP-UP TRANSLATOR on which Navy divers played a major role in its installation at San Clemente Island.



NAVY DIVER William R. Blewett uses big wrench to adjust translator guy wires.



RELAXING BETWEEN DIVES, most of the men enjoy fishing. Left to right are Navy divers Leslie C. Lamar, John H.

Willoughby, Terrence M. Gallagher and Herbert O. Jones. Ninety-five percent of their diving is SCUBA.



LT. (jg) R. H. WARREN is Asst. Diving Officer

Underwater Photos
By Roy V. George,
Others By
Richard Teunis AN