

# 'GREATEST' CONCERT SEASON NEAR

## Full-Length Opera 'La Boheme' Opens 18th Musical Fete

Five outstanding events for the 1964-65 concert season are announced by the China Lake Civic Concert Association. With season tickets already at sell-out level, the world-renowned artists will find an enthusiastic audience awaiting each performance at the Station Theater.

The association's board of directors, headed by President Kenneth W. Heyhoe, has arranged a variety of talent which promises to make the 18th annual China Lake concert season one which will live long in the memories of station concert-goers.

Thursday, Nov. 19, 1964

The curtain will go up on the opening event Thursday, Nov. 19, when the Pacific West Coast Opera Company presents Puccini's "La Boheme" in a full-length English version. The pop-



SEASON HIGHLIGHT will be appearance of the Los Angeles Philharmonic Orchestra, under baton of Conductor Henry Lewis. Concert will be presented Sunday afternoon, April 25, 1965, as part of "greatest" season in 18-year history here.

Thursday, Feb. 4, 1965

The Vienna Boys Choir will make its third visit to China Lake on Thursday, Feb. 4, 1965. Always great favorites with audiences, the boys range in age from 8 to 14 years.

Each choir is a new group, and the present one will be the twenty-first to tour America under the auspices of impresario S. Hurok.

The program will include sacred music, folk songs and a costumed operetta.

Emperor Maximilian I ordered the organization of a boys' choir to participate in the performance of religious music in the Court Chapel of Vienna, in 1498. Ever since, the choir has been delighting the world with sacred and secular music.

Thursday, April 1, 1965

Pianist Gina Bachauer will pre-

was stranded in the Middle East by the outbreak of World War II, and remained there for the duration, entertaining Allied soldiers—and giving piano Paul of Greece.

Sunday, April 25, 1965

Climax to the concert season and highlight of the 18-year history of the China Lake association will come Sunday afternoon, April 25, 1965, when the Los An-

gels Philharmonic Orchestra plays on the station stage in signal recognition of the local audience as a segment of the Southern California music family.

Henry Lewis, traveling conductor for the orchestra, will be on the podium. He appeared here two years ago in concert with Marilyn Horne and the String Society.

"This will be our great concert season at China Lake," Heyhoe

said. "We have committed all our resources to obtain for our members a great symphony orchestra, a full-length opera, a famed vocal star, a fine pianist and a unique choral group. We believe no finer program could be heard even in the largest city."

## SHOWBOAT

FRIDAY SEPT. 11

"THE THIN RED LINE" (99 Min.)  
Keir Dullea, Jack Warden  
7 p.m.

(War Drama in Color) Tough veteran sergeant taunts young private on Guadalcanal into becoming an equally rugged combatant. By the author of "From Here to Eternity." It's brutal, almost too real! (Adults and Youth, Mature Children.)  
Shorts: "Golden Eggs" (7 Min.)

SATURDAY SEPT. 12

MATINEE  
"FOR THE LOVE OF MIKE" (84 Min.)  
Richard Basehart  
1 p.m.

Shorts: "Strange Companions" (7 Min.)  
"Sea Hound No. 7" (17 Min.)

EVENING  
"THE GOLDEN ARROW" (91 Min.)  
Tob Hunter, Rossano Podesta  
7 p.m.

(Adventure in Color) Youthful beggar, who is really the rightful ruler of Damascus, hurdles tests of strength and courage to win the throne and a beautiful princess. Arabian Nights in fun. (Adults, Youth and Children.)  
Shorts: "Sheep Wrecked" (7 Min.)  
"Toast to Portugal" (10 Min.)

SUNDAY-MONDAY SEPT. 13-14

"THE SHEEPMAN" (85 Min.)  
Glenn Ford, Shirley Maclaine  
7 p.m.

(Western Comedy in Color) Pity the poor (but quick on the draw) sheepman who settles down with his herd—right in the cattle country, and falls for a cowman's fiancée. A laugh for every thrill! (Adults, Youth and Children.)  
Shorts: "Invisible Mouse" (7 Min.)  
"AFM No. 623" (14 Min.)

TUESDAY-WEDNESDAY SEPT. 15-16

"ZULU" (138 Min.)  
Stanley Baker, Jack Hawkins  
7 p.m.

(Adventure in Color) The heroic stand of a small British garrison against thousands of fierce warriors encompasses many stories within a story. Based on history. Unusual action. (Adults, Youth and Mature Children.)  
THURSDAY-FRIDAY SEPT. 17-18

"BILLY ROSE'S JUMBO" (124 Min.)  
Doris Day, Stephen Boyd  
7 p.m.

(Musical in Color) A handsome driver joins a debilitated circus, falls for the owner's pretty daughter and tries to make the little Big Top successful. Lifting music of Rogers and Hart. (Adults, Youth and Children.)

## VAdm. Hayward To Confer Here 2 Days Next Week



VADM. J. T. HAYWARD

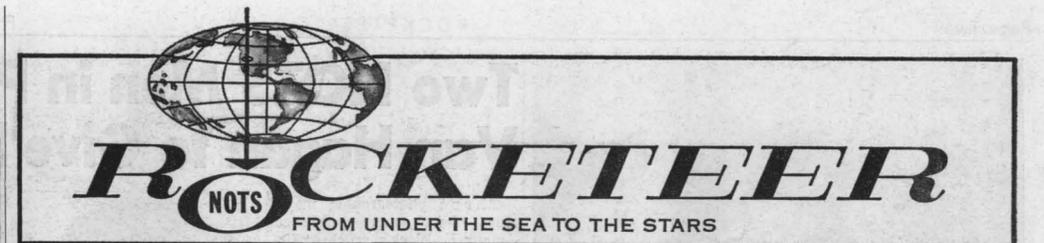
Vice Admiral J. T. (Chick) Hayward, Commander Antisubmarine Warfare, Pacific, will visit the Station next Tuesday and Wednesday to confer with top military and civilian personnel. He will arrive at 11 a.m. Tuesday and depart the Station at 3 p.m. Wednesday.

Admiral Hayward was the Station's first experimental officer. He began his tour here as a commander in Aug. 1944 and was promoted to captain in Jan. 1946 earning him his nickname of "Chick" for being the youngest captain in the Navy at that time.

During his tour here in the fall of 1945 he was assigned to make a six-week inspection tour of the atomic bomb damage at Nagasaki.

He served as experimental officer until Aug. 1947 when he was assigned to command the Sandia Base and Armed Forces Special Weapons Project at Albuquerque, N.M.

Admiral Hayward, one of the Navy's most decorated officers, was the first Navy pilot to fly the Navy's heaviest carrier-based plane, an AJ-1, designed to carry an atom bomb.



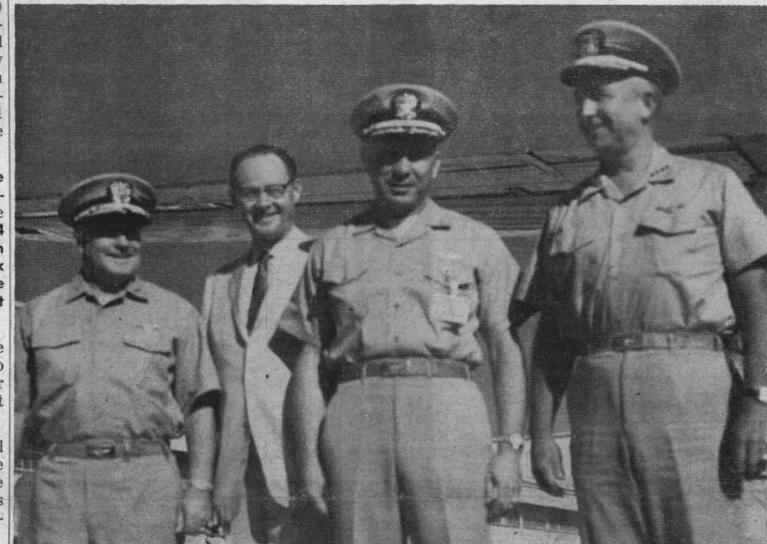
Vol. XIX, No. 38

NAVAL ORDNANCE TEST STATION, CHINA LAKE, CALIFORNIA

Fri., Sept. 11, 1964

## Another NOTS Scientific Breakthrough

# Test Ultrasonic Energy In Forming of Metals



REUNION AT NOTS between former ComNOTS, now VAdm. Paul D. Stroop (left), Dr. Wm. B. McLean, Technical Director, Capt. John I. Hardy, present ComNOTS, and Adm. Thomas H. Moorer (right), former NOTS Experimental Officer, occurred last week with

visit to China Lake of Admirals Moorer and Stroop. Adm. Moorer, now Commander-in-Chief, Pacific Fleet, and VAdm. Stroop, Commander, Air Force, Pacific Fleet, were touring key Southern California Navy and Marine Corps Installations.

## Dr. Langenecker's Findings Foresee Vast Potentials

The curious phenomena of ultrasonic energy is being used at NOTS as one of the science's newest metal physics tools.

Dr. Berwin Langenecker, head of Research Department's Metal Physics Branch, recently established that during intense ultrasonic irradiation, the forces necessary to plastically deform metals may be reduced by as much as one hundred percent!

These findings may eventually result in sound becoming one of man's most important tools in metals forming and treatment.

Uses Far Less Energy  
It has been found that this softening by macrosonic irradiation resulted from application of far less energy than that generally required to accomplish the same effect with conventional methods.

This implies potentially promising applications of high intensity ultrasound. For example, efficient macrosonic forming is practical, provided the acoustic energy is properly directed toward the deformation zone.

Devices permitting accom-



JEROME HINES

... popular Metropolitan basso.

ular story of student life and love in the Latin Quarter of Paris in the 1830's launched this group on a successful career five years ago.

Ann Machamer will sing the leading role of "Mimi," the poor Parisienne, with Marni Nixon as the flirtatious "Musetta." Richard Riffel and Lloyd Hanna will sing the roles of "Rodolfo" and "Marcello," with Robert Rogers singing the part of "Alcindoro."

Tuesday, Dec. 15, 1964

Metropolitan Basso Jerome Hines, after an absence of eight years, returns to China Lake Tuesday, Dec. 15. His new style of vocal recital to concert audiences throughout the country in the past two years includes conventional numbers during the first half of the program, with a change to arias in costume for the second half. The audience frequently witnesses his make-up changes from one character to another.

A graduate of UCLA, he majored in chemistry and received his MA degree there. A role in Gilbert and Sullivan's "Pinafore" before the footlights of the Los Angeles Civic Light Opera ended Hines' career as a scientist, and he left the stage as a rising star of the opera.



MME. GINA BACHAUER ... pianist due here April 1.

sent a concert in her grand style, Thursday, April 1, 1965. The little girl who dreamed of being a concert pianist from the time she received a toy piano at the age of five has been a favorite with American audiences since she made her debut at Town Hall in New York in 1950. A native of Athens, Greece, she studied under Alfred Cortot in Paris. On her first tour, she

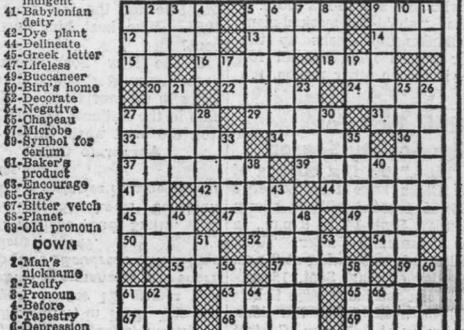
## CROSSWORD PUZZLE

Answer to Previous Puzzle

- ACROSS
- 1-Pain
- 6-Declare
- 9-Range of knowledge
- 12-South African of Dutch descent
- 13-Unusual
- 14-Poem
- 15-Printer's measure
- 16-Nobleman
- 18-Sailor (colloq.)
- 20-Prefix with 22-False pitch
- 24-Army meal
- 27-Drinks slowly
- 28-Observes
- 31-Affirmative vote
- 32-Lucid
- 34-Bark
- 36-A continent (abbr.)
- 37-Enriched
- 39-More
- 41-Babylonian deity
- 42-Dry plant
- 44-Delineate
- 45-Greek letter
- 47-Lifeline
- 49-Buccaneer
- 50-Bird's home
- 52-Decorate
- 54-Negative
- 55-Chapeau
- 57-Microbe
- 58-Symbol for centium
- 61-Baker's product
- 63-Encourage
- 65-Bray
- 67-Bitter vetch
- 68-Planet
- 69-Old pronoun

## DOWN

- 2-Man's nickname
- 3-Pacify
- 5-Pronoun
- 8-Before
- 10-Tapestry
- 11-Depression between mountains
- 7-Teutonic deity
- 8-Soak
- 9-Country of Asia
- 10-Man's nickname
- 11-Compass point
- 17-Hebrew month
- 19-Part of "to be"
- 21-Unclosed
- 23-Retain
- 25-Figure of speech
- 26-Scorched
- 27-Sieve
- 28-Egypt tale
- 30-Narrow opening
- 32-Tear
- 33-Meat from pig
- 35-Food program
- 40-Precipitation (abbr.)
- 43-Bigger
- 46-Residue
- 48-Follows prescribed food program
- 51-Symbol for tantulum
- 52-Title of respect (abbr.)
- 56-Scottish cap
- 55-Small rug
- 60-Organ of sight
- 61-Hebrew letter
- 62-Prefix not
- 64-College degree (abbr.)
- 66-Quiet!



For Use in Authorized Service Newspapers Only.

## Capt. Holmquist Visits; To Command Mugu NMC

Aboard the Station last Friday during the visit of Adm. Thomas H. Moorer, CincPacFlt, was Capt. Carl O. Holmquist, and his wife, Pat. The Holmquists were enroute to Pt. Mugu where

year, when he was assigned to take over command of the Naval Training Device Center, Port Washington, N. Y.

Capt. Holmquist served as Technical Officer here from Sept. 1961 until June of last



CAPT. CARL HOLMQUIST



LCDR. M. M. CALLAHAN

## LCdr. Callahan Reports Aboard

LCdr. Margaret M. Callahan, a 20-year veteran of the Nurse Corps, has reported aboard from the Naval Hospital, San Diego, to augment the Station's Hospital staff.

She relieves LCdr. Rita E. Duffin, here since July '62, who now goes to the Naval Hospital at Subic Bay, Philippines.

Prior to her San Diego Naval Hospital assignment, LCdr. Callahan served aboard the MST transport USS General W. A. Mann (TAP-112) on the Far East run from San Francisco to Honolulu, Manila, Okinawa, Yokohama, and Pusan.

During her off-duty hours in San Diego she attended San Diego City College.

## Navy Plans Area Wage Survey in LA

A wage-change survey of the Los Angeles area will be conducted "in the near future," according to information received by W. M. Blinkhorn, Head, Wage and Classification Division.

The Navy's Office of Industrial Relations, which authorizes area wage surveys for private industry, will undertake the survey to determine rates of pay for all ungraded Navy employees.

Ungraded employees at China Lake and Pasadena Annex may have their rates of pay adjusted if warranted by the wage survey data. The Rocketeer will announce the survey starting time as soon as it is officially ordered to begin.

## RAdm. W. H. Price Becomes Com11ND

Rear Admiral Walter H. Price, former Commander of the Long Beach Naval Station, became Commandant of the 11th Naval District Wednesday, relieving Rear Admiral M. W. White, who recently conducted the Commandant's annual inspection of NOTS facilities at China Lake, Pasadena, Long Beach and San Clemente Island.

Adm. White has been assigned to duties as Commander, Carrier Division 5.



DR. B. LANGENECKER

plishment of macrosonic forming have been developed here under Dr. Langenecker's direction.

Among these are units for ironing, curling, deep drawing, rolling and cropping of metals.

The applications of macrosonic hold forth more promise of delicate metal forming than any method previously employed.

Yet, its application to large (Continued on Page 3)

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

TO \_\_\_\_\_

CHAPLAIN'S MESSAGE

Talks With Teenagers

By Fr. Joseph A. Costa, O.F.M. CAP.



WHEN YOU'RE READY TO GO STEADY. Let's say your formal schooling is nearly at an end. Soon you will no longer have to depend on your parents. You will be able to get a job and support yourself.

You have also thought seriously about your vocation and decided that marriage is what God has planned for you — the state in which you can best work for your eternal and earthly happiness. There is no reason why you could not marry in two or three years if you chose to. So you could go steady any time you want.

Let me explain what I mean by going steady. It is when you and a person of the opposite sex go together regularly and do not date anyone else. You do not have to sign a formal contract to go steady. You do not even have to exchange pins or other signs of your agreement. For all practical purposes, you are going steady when you confine your dating, by accident or specific intention, to one individual.

Most persons take two steps to marriage. First, they date — play the field, attend a party with this one, a dance with another, go to a soda fountain or a coffee shop or spend an evening listening to pop records with a third. You don't think about getting serious. Dating is what you should be doing when there is no chance that you can marry soon. Dating merely means you are out for some good wholesome fun with no serious purpose in mind.

Going steady is step two. It means that you are narrowing down your choice. If your "steady" seems to have the qualities you are looking for in a mate, it is understood that you will marry each other. Somewhere along the line is engagement. That is when you both clearly understand that you intend to marry in the near future.

DANGERS OF GOING STEADY TOO EARLY. The progression I mentioned above may help you realize why we advise against going steady until you are ready to marry. As a result of going steady too young, many of today's young men and women are marrying before they are old enough to understand what their responsibilities will be as parents and husbands or wives.

When you start to go steady at fifteen or sixteen, you are increasing the odds that you will become a teen-age husband or wife. So before you go steady, it will pay you to think seriously of all the disadvantages you would put on yourself. These we will discuss in our next tete-a-tete.

Chaplain Odell Attending S.F. Executive Development Seminar

Attending an Executive Development Seminar for Navy chaplains at the University of California's Berkeley campus this week is Senior China Lake Chaplain Robert W. Odell (USN). He was selected by the Chief of Chaplains to join 10 Navy chaplains for the seminar, because of his highly effective educational experience.

The seminar is being conducted by Dr. Hubert Coffey, associate professor of psychology at Berkeley. Its goals are the sharpening of an individual's power of observation; the recognition of individual behavior patterns in a group situation, and the development of an attitude for cooperative endeavor. Chaplain Odell will visit the San Francisco Seminary campus, one of several graduate theological schools of the United Presbyterian Church U. S. A., before returning to China Lake Monday.



CHAPLAIN ODELL

The Rocketeer

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 Capt. John I. Hardy, USN Station Commander  
 "J. J." Bibby Public Information Officer  
 Jack G. Broward Editorial Advisor  
 Richard Grunenberg Editor  
 Budd Gatt Associate Editor  
 Frederick L. Richards Special Assignments  
 Bill Borgstorf, Sports DEADLINES  
 News Stories — Tues., 4:30 p.m.  
 Photographs — Tues., 11:30 a.m.  
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Christian Science (Chapel Annex)—Morning Service—11 a.m. Sunday School—11 a.m.  
 Protestant—(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 5:30 p.m. Sunday.  
 6 a.m. Monday through Friday, 8:30 a.m. Saturday.  
 Confessions—8 to 8:25 a.m., 6 to 8:30 p.m. Saturday; Thursday before First Friday, 4 to 5:30 p.m.  
 NOTS Hebrew Services (East Wing All Faith Chapel)—Every first and third Friday, 8:15 p.m. Unitarian Fellowship (Parish Hall)—Fellowship Meeting—Sundays, 7:30 p.m. Sunday School—10:45-11:45 a.m.

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.

Electronic Engineer (General), GS-12, Code 3522—Perform production engineering duties which include analysis of electronic subsystems for possible deficiencies in producibility, environmental conditions, and reliability. Will also perform necessary design work and prepare test plans for verification of the new design. Minimum of five years experience required with at least one year on magnetic components and two years in the specialized field of reliability.

File application for above with Dora Childers, Bldg. 34, Room 32, Phone 71392. Clerk Typist, GS-4, PD 18449Aml-1, Code 1760—Provides general office services for the Accounting Division. Acts upon routine correspondence requesting project data, technical studies and reports, and loan of documents. Reviews and coordinates incoming correspondence and other communication, etc. Required Experience: Two years progressively responsible experience in office-clerical functions. Must be qualified typist.

File applications for above with Janet Thomas, Bldg. 34, Room 26, Phone 71648. Deadline for filing is September 18. NAVY OVERSEAS VACANCIES Supervisory Accountant, GS-510-11, Keflavik, Iceland; Supervisory Receiving and Shipping Officer, GS-2101-9, Guantanamo Bay, Cuba. Deadline for filing is September 28, 1964. Cable Splicer (Communications), Guantanamo Bay, Cuba; applications accepted until position is filled. File applications for above with Navy Overseas Employment Office (Atlantic) Hdqtrs., Potomac River Command, Washington, D.C. 20390.

Unitarians

The Unitarian Fellowship will resume its Sunday school classes this Sunday, from 10:45 to 11:45 a.m., in the Parish Hall, northeast corner of Blandly and Hussey.

Classes will be held for children from age 3½ through high school.

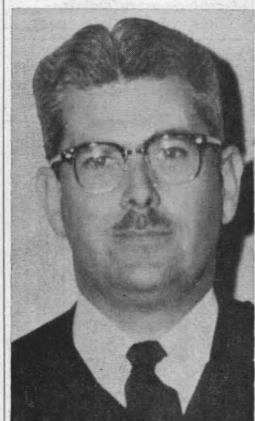
Persons wishing more information may contact Mrs. Susan Fisher, Ext. 76633.

Rev. John L. Reid Guest Sunday at Potluck Dinner

The Rev. John L. Reid, former pastor of China Lake Community Church, will show slides of his recent European trip at a potluck dinner and fellowship meeting in Richmond School auditorium Sunday.

Presently serving as pastor of the Community Presbyterian Church of West Covina, Rev. Reid was assigned here from 1953 to 1961.

The potluck dinner will begin at 6 p.m. Persons whose surnames begin with the letters A through L are requested to bring dessert and salad. Those



REV. JOHN L. REID

whose names begin with M through Z are to bring entrees. Single persons may bring relishes. All should bring their own table service and milk for the children. All members and friends of the Community Church are invited.

'DESERT PHILOSOPHER'

'Old Timer' --He's Just 32

By "POP" LOFINCK



I'm going to write some columns on interesting people on the Station—whom you haven't seen in the headlines lately—but they are important.

Many kinds of talent—tops in their field.

We need not look far for expert advice or authoritative information on many subjects. They are right here on the base.

Starting with Dr. Carl F. Austin, because his name begins with "A"—so no protocol or favoritism involved.

Dr. Austin is a research geologist in the Detonation Physics Group in the Research Department of the U.S. Naval Ordnance Test Station. He is an authority on explosives and their effect on rocks and earth. Lined-Cavity Explosive Phenomena.

Also he is an outstanding authority on Thermal-Geology—i.e.—underground steam and fumarole.

HE AND WIFE COLLABORATE IN WRITING

Carl has now published and presented over 40 technical papers and semi-technical magazine articles.

Magazine articles he and his wife Barbara have written together for mineral collectors include:

"Some Hazards of Underground Collecting" and "Oxidation — the Mineral Collector's Friend."

He has also written:

"Coso Hot Springs — A Guide to Geology in Action," for the Maturango Museum.

Austin got his BS in Mine Engineering and his MS and PhD degrees in Geological Engineering from the University of Utah, because there are a lot more mines in that area.

His thesis for his Doctor's Degree was on Geo-Chemistry of Darwin Mines and Darwin District. Took three years of research and writing to accomplish.

AUTHORITY ON MINING IN THIS AREA

He worked from time to time for the Anaconda Company, both as a Mining Engineer and Geologic Consultant and formerly lived at Darwin.

He taught Economic Geology and Mineralogy at New Mexico School of Mines, and taught classes in geology at China Lake for UCLA and Bakersfield Colleges.

He is an authority on mining in this area—on "what's there and how to get it out at a profit."

Carl has worked as a mine geologist and consultant for many mines in Western America and has also consulted in Europe.

He is listed in Who's Who in American Men of Science.

He came to China Lake from the New Mexico Bureau of Mines in 1961; although only 32 years old, he is qualified for the title of "Old Timer" in this area.

A SEASONED HIKER AND CAMPER, TOO

His dad moved to Kernville in 1916, and from the time Carl was six years old until he graduated from high school, he fished and hiked and hunted and camped in the Sierras every summer — with his parents of course.

From the Southern Kern River to the San Joaquin he has now hiked and packed over 1000 miles in the Sierras.

He also worked in the Pike Creek Mine near Bishop — so he knows the Sierra Mountains.

He still goes shooting every chance he can get away. His hobby is guns. Has several, including a 458 Magnum, for which he made the stock and assembled parts of different guns.

He has done much mine examination work to ascertain the value of the property.

Carl has conducted several groups to the boondocks. Last year there were 80 people in one group to Randsburg Wash area. And to Coso Hot Springs — there were 75 cars — around 150 people.

So, if you want authentic mineral or geologic information about this area, ask Carl.

There are two other geologic authorities on this base, Dr. Pierre St. Amand and Dr. Roland E. Von Huene. More about them in later columns.

Yom Kippur Services Tuesday, Wednesday

Yom Kippur services will be held Tuesday, Sept. 15, at 8 p.m. and on Wednesday, Sept. 16, at 10 a.m. in the East Wing of All Faith Chapel. The time for Yizkor services will be announced at the Yom Kippur services. All persons of the Jewish faith are cordially invited.

Insurance Cancelled

SecNav Notice 1741, dated Aug. 18, 1964, informs policy holders that insurance carried with Peoples Indemnity Insurance Co. of Conway, Ark., is cancelled.

The notice states that the company no longer reaches the financial responsibility of the laws of the State of California.

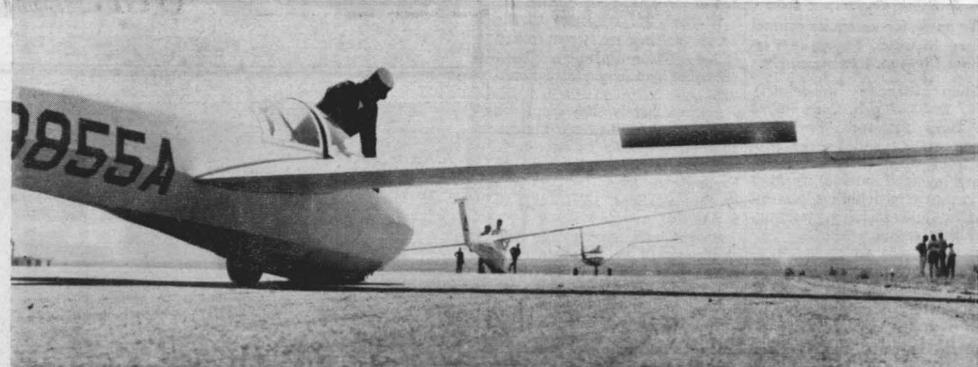
Cooler Weather Due; August High Was a Mild 106

This is September — the beginning of the fall season, and traditional time for the leaves to change color. To China Lake, September means temperatures drop to a mean of 78. The Atmospheric Studies Branch, Instrument Operations Division, reports that temperatures will rise to 100 or more only nine days (average) during the month. Winds will average Southwest at 8 miles per hour. In short, this is the time of the year when you can go outdoors, look around, and say: "Ain't it a beautiful day!"

In August, the Atmospheric Studies Branch recorded a high of 106; low, 55. There were 21 clear days, and 10 partly cloudy.

China Lake Men Place In Soaring Meet

McEwan, Drew Use Home-Built Gliders In Meet



LINING 'EM UP on the runway for the big Labor Day weekend Southern California soaring meet.

Two China Lake men, who built their gliders from kits, placed in the Southern California Soaring Championships Meet held at the Inyokern Airport over the Labor Day weekend.

Dr. William S. McEwan of the Research Department, who constructed his sleek Schweizer 1-26 in the local Soaring Club workshop, garnered 853 points to place third in Class II for craft with a wing span under 50 feet with a glide ratio of less than 26 to 1.

In his first day's flight he covered 44 miles landing at Olancha. The second day he covered 28 miles.

The research chemist, who started soaring in 1962, had as crew members his wife, Ethel, and his daughter, Shelley, a student glider pilot.

Drew Places in Class I Research Department's Charles Drew in a kit-built Breigleb BG-12A placed seventh in the Class I competition for gliders with no wing span restrictions and over a 26 to 1 glide ratio.

Cadets from the China Lake CAP Squadron 84, under the direction of Major Robert B. Thomas, assisted meet officials in traffic control, launchings, and tow line recovery.

First place winner in Class I was Fred Loeffler Jr. of San Francisco who covered 205 miles in his LM-1 from Inyokern to Hawthorne, Nev.

Graham Thompson of Los Angeles, flying a German-built KA-6R craft, won second place. His longest flight was to Bishop. Thompson is the fifth ranking soaring pilot in the U.S.

Downey's Jack Lambie on his first day's flight damaged his BG-12 glider landing in Renegade Canyon. The China Lake Soaring Club repaired the damage for him and he went out the second day to chalk up a 107-mile total to give him third place.

Fourth place winner was George Ulveges of Los Angeles in a BG-12B.

Class II Winners

Lynwood's Ray Poenneke nursed his Cherokee II glider to within seven miles of Hawthorne, Nev., covering 198 miles to take first place in the Class II event. His was the second

longest flight of the meet.

Lyman Beman of Canoga Park piloting a Schweizer 1-26 placed second.

Following Dr. McEwan to take fourth place was Lee Brody of Solano Beach in a Schweizer 1-26.

National Pilots Attend

Among the nationally known soaring pilots attending but not participating in the meet competition were Helen Dick, holder of the women's U.S. 250-mile goal-and-return flight record set at Inyokern; Bill Ivans, president of the Soaring Club of America; Paul Bickle, NASA director at Edwards AFB; Al Parker, Robert Brown, and Dave McNay, who directed the meet.

Bruce Beebe, 10th ranking soaring pilot in the U.S., was dogged by bad luck throughout the meet, scoring only 28 points.

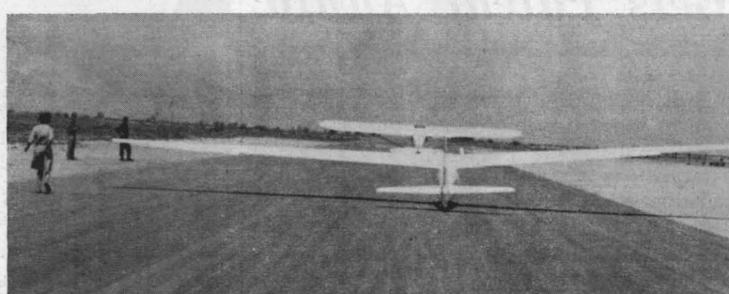
Twenty-one pilots participated in the three-day event.

Tow planes for the meet were furnished by Desert Aero Service, Inyokern; Selkirk Flying Service, Sunland; and the San Diego Gliding Club.

3-Man Aluminum Sub Capable of Operating At 15,000-ft. Depths

The Aluminaut, deep-diving, all-aluminum submarine, was launched last week, with Secretary of the Navy Paul H. Nitze witnessing proceedings.

Built by General Dynamics Electric Boat Division for Reynolds Metals Co., the Aluminaut is 50 feet long, and is designed to operate to a depth of 15,000 feet with a three-man crew. Only the Trieste bathyscaphe is capable of greater depth at present, and its underwater scope is quite limited. (From Hydrogram)



LINE GOES TAUT as tow plane takes Charles Drew's glider down runway.



DR. W. S. McEWAN, Head of Chemistry Division of Research Dept., is assisted by daughter, Shelley, prior to takeoff in his 1-26 glider on 44-mile flight.



CHARLES M. DREW, another glider enthusiast from NOTS Chemistry Division, also gets aid of Shelley McEwan in securing shoulder belts. His glider is a BG-12A.

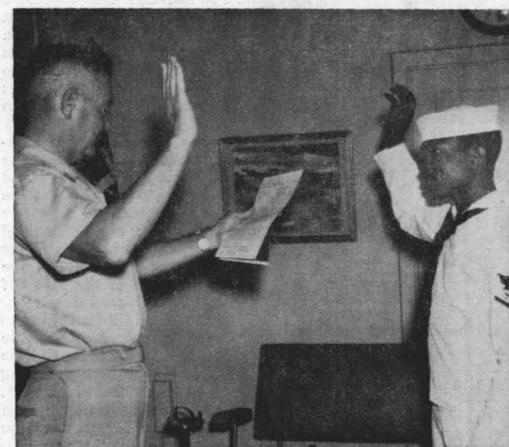
Two-Day PERT Course Slated For Sept. 21-22

A 16-hour course in Time and Resource Networking Techniques (commonly referred to as PERT) will be offered on Station Sept. 21-22. The course will be conducted by Robert Joyce, of Management Training Associates, in the Training Building, Room 107. Class begins at 7:45 a.m. and ends at 4 p.m.

Class size will be limited to 15. To enroll, send in one completed copy of NOTS Course enrollment form 11ND-NOTS 12410/28 to Code 654 by Wednesday, Sept. 16. Contact Evelyn Moors, phone 71359, for further information.



DREW COMES IN for a smooth landing after flight —Photos by Robert Hancock, PH3



GOING FOR 22-PLUS — Roosevelt Bray, SH3, takes oath from LCDr. L. B. Shults, CO, NOTS Enlisted Personnel, as he ships over for four more years which will take him over the 22-year mark when hitch is completed. Assigned to Commissary Store, he reported here in July from USS Kearsarge.

### PROMOTIONAL OPPORTUNITIES

To apply for vacancies contact Nancy Reardon, Pasadena Personnel Division, Extension 492.

Shop Planner (Machinist), \$3.57 to \$3.87 p/h, Code P8094 — Duty Station: Pasadena. Plans, routes and checks progress of work through shop. Work involved is metal working processes of machining, pattern making and molding, welding, and sheet-metal working.

Position will be filled either from certificate of eligibles, or by an employee who formerly occupied the same position or one of a higher level.

### Summer Time Is Picnic Time

Enthusiastic response to the Employee Service Organization (ESO) sponsored picnic has been received by the picnic committee.

Approximately 350 employees and their families have indicated their intention to attend.

The picnic will be held at Farnsworth Park in Altadena on Sunday, Sept. 13, from 1 to 6 p.m.

Sports and games for the children will be provided. The ESO will also provide hot dogs, potato chips and soft drinks.

Y'all come and join in the fun, fun, fun!

# NOTS Pasadena

VIRGINIA E. LIBBY — EXT. 638



MIKE TAIBI proudly exhibits his winning model, the "Star Duster 600" and trophy.

Congratulations are offered by Lt. (jg) Art Grosheider, USNR, NAS, Dallas, Texas.

## Mike Taibi Establishes A New National Record

At the ripe old age of 9, Michael G. Taibi, son of R. S. Taibi, Planner and Estimator in the Manufacturing and Products Engineering Branch, UOD, walked away from the 33rd National Model Airplane Championships with honors. Michael won first place in the Class "B" free flight, first place in R.O.W. (Rise Off Water) free flight, and third place in Class "A" free flight. In winning the R.O.W. contest, Michael established a new national record with a flight total of 12:42.5 minutes.

The yearly event, which is jointly sponsored by the Navy and the Academy of Model Aeronautics, was held in Dallas, Texas.

Michael was one of 22 contestants selected to visit the Naval Center at Pensacola, Florida. The group was flown from Dallas to Pensacola and given the red-carpet treatment beginning with afternoon swimming and an evening Luau.

The following day was spent aboard the aircraft carrier Lexington where the boys observed full size aircraft landings from the bridge. They were then escorted on a tour below deck to observe the machinery of an aircraft carrier.

Puts On Show Later that afternoon an about-face took place and the contestants put on a show for the crew, flying control line and free flight gas models, gliders, rubber powered models, etc. from the carrier deck, with a Navy launch standing by to retrieve any models landing in the water.

The activities were concluded that evening with a banquet at Mustin Beach Officer's Club.

Mike's trip came to a glorious end with a flight to Chicago where he rejoined his parents who had accompanied him to Dallas.

Young Taibi's first participation in the national meet was last year at Los Alamitos Naval Air Station, where he was the youngest contestant. At that time he won a trophy for third place in the 1/2A Free Flight Gas Powered Event and a plaque for fifth place in the Rise Off Water Gas Powered Event.

Builds and Flies Own Mike not only flies his little planes, he builds them and his father, Sal, has been designing free flight models since 1941. Many of his models have been manufactured for world-wide distribution since then.

Father and son eagerly look forward to next year's national event which will be held at Wilcox Grove Naval Air Station, Philadelphia.

During his nine years with NOTS China Lake and Pasadena, he has been associated with the Polaris program.

Victor H. Herberts, Physicist in the Missile Branch of UOD's Systems Operations Division, leaves the station this week to take up new duties as Physics teacher at Santa Fe High School.

During his nine years with NOTS China Lake and Pasadena, he has been associated with the Polaris program.

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## Gets Patent Award



D. J. WILCOX, Head, Underwater Ordnance Department (U) and Cdr. W. M. Place, Acting Technical Officer, (r) attended ceremonies to present a Navy Patent Award to Thomas G. Lang, Head, Hydrodynamics Group, and with NOTS since '51.

## Sixth Navy Patent Awarded to Lang

Thomas G. Lang, Head, Hydrodynamics Group, recently received a Navy Patent Award, his sixth such award during his 13 years at NOTS.

This most recent invention, "Propeller Stabilized and Controlled Torpedoes" relates to a new method of stabilizing and controlling torpedoes. No stabilizing fins, rudders or elevators are needed, since a pair of counter-rotating propellers, if adequately designed can perform all functions.

The advantages of a propeller stabilized and controlled torpedo are that cavitation is less likely and less power is required for propulsion. Adequate turn rates can be obtained by de-

flecting the propeller axis by only one or two degrees.

Tom has been associated with NOTS since 1951, the beginning of his federal service career.

During this period, he has received two Superior Achievement Awards for outstanding accomplishments in his field. He is currently doing research in hydrodynamics and is coordinator for the NOTS Dolphin Research Program.

A native Californian, Tom and his wife, Pat, presently reside in South Pasadena.

## Oh, My Goodness!



ELIZABETH A. FARINA



CYNTHIA A. LAMMENS

Now that we are terribly familiar with two names and two faces in the Supply Department, we shall once again make a valiant attempt to identify name with face. Well, girls, presuming a sense of humor is one of your virtues, a little publicity is nice (isn't it?).

# Test Ultrasonic Energy In Forming of Metals

(Continued from Page 1)

scale industry, such as metal rolling, presents several problems, two of which are: production of suitable macrosonic transducers and, a means of coupling or directing high-frequency acoustic energy to the deformation zone within the metal.

### Test More Intense Sound

To date, no difference has been found in the metal yielding results of sound frequencies ranging from 15 cycles to 1 megacycle. Yielding has been accomplished at all frequencies investigated.

Studies are being continued, however, using "more intense" sound at various frequencies.

As far as the investigations of effects of ultrasonic irradiation on metals properties are concerned, the research clearly shows that the structure of metals and the relationship of their properties can be affected.

This, according to Dr. Langenecker, is particularly promising in that it may ultimately allow "identification" of metal properties through the use of ultrasound.

Significantly, in experiments in which zinc and aluminum were treated with high-intensity ultrasound, the critical shear stress (i.e., yield point) for zinc was increased 500 percent and that of aluminum 300 percent.

Similar studies are being conducted with metals such as beryllium, low carbon steel and tungsten.

### Seek to Eliminate Defects

Langenecker's group is currently seeking answers to such questions as: How can defects which always occur in lattice structures of metals be affected by sound waves? And, how can these lattice defects be eliminated?

Using a NOTS developed metallograph, involving both ultrasonics and X-ray techniques, scientists are witnessing for the first time some of the initial interactions between high-intensity sound waves and lattice structures.

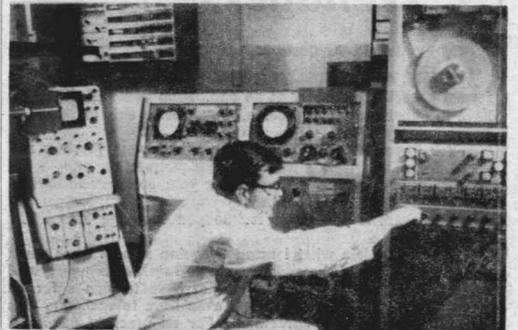
It has also been found that uncontrolled, high-intensity sound fields, such as those produced by large rocket motors, can often damage the structure of contemporary metals.

Thus, where sonic energy is concentrated, destruction may occur.

As a continuation of metal physics research, Langenecker's unit is investigating the combined effects of neutron radiation and intense ultrasonic radiation on metals using an advanced TRIGA reactor.

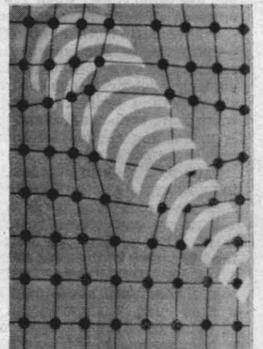
### It is the first time such work has been reported.

in the extremely complex field of high-intensity acoustics, a broad array of unknowns is under investigation. And, from these continuing searches a number of experiments, answers are being found, Langenecker reports.

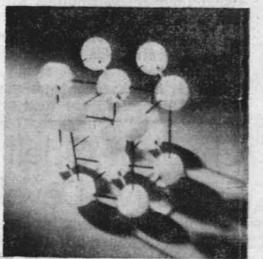


IN THE extremely complex field of acoustics, a broad array of unknowns is under investigation. From these continuing searches and experiments at China Lake NOTS lab, answers are being found.

HIGH INTENSITY ultrasound can create pressures and stresses that "affect" matter. Metal was softened for the first time (right) by the application of sound waves of 800 kilocycles, independent of outside temperature.



ANSWERS ALSO are being sought to such questions as: How can defects which always occur in lattice structures of metals be affected by sound waves? — And how can these lattice defects be eliminated?



OPENING DAY at Burroughs gives "Lola" (center) chance to meet fellow student, Bruce L. Wilson, 18. Costa Rican exchange student is living with family of Mary Lou Becker, 15, (left). —Photos by Lee Mascarello, PH2

## Exchange Student 'Lola' Is Costa Rica's New Teen Ambassador to the U. S.

Costa Rica's newest ambassador to the United States lugs textbooks instead of a briefcase. She's replaced diplomat Gloria "Lola" Navas Montero, 17, China Lake's newest American Field Service exchange student.

"Lola" arrived here from her home at San Jose last week and will live with the Raymond B. Becker family, 49-B Ashworth Pl., for the next year.

Included in the family are his wife, Lucretia, a member of the Burroughs high school faculty, and two daughters, Carol, 18, a freshman at Fresno State College, and Mary Lou (M'lu), 15, a sophomore at Burroughs this year.

Interviewed Tuesday at Burroughs, "Lola" admitted to being "a little frightened when I think of the responsibilities I have in this country."

"More than anything else, I want to attain the high standards my predecessors have set in visiting the United States."

The daughter of a lawyer, Rogelio Montero, who serves as Director of the English Laboratory in Costa Rica, "Lola" has a sister, Isle, 16, and a brother, Rog-er, 14.

Mrs. Becker said the family expected to experience some language difficulties with her newly "adopted" daughter. But, it turns out that "Lola" has taken English for seven years in her native schools.

"We'll have to watch ourselves with our own grammar, now," the home economics teacher said.

Compares Teen Lives How is teen-aged life in Costa Rica?

"I haven't been here long enough to assess the life in your country. But, I expect it will not be too different from that in Costa Rica," related "Lola."

In Costa Rica, however, teenagers observe a more conservative social life, "Lola" explained. This means no dates except on Sunday. And even then, girls learn to live with a chaperone at all times. Dates end by 10 p.m.

One other big difference, she continued, is that girls generally stick with one date... from the acquaintance stage on through marriage!

As all other members of the Becker household, "Lola" has assumed daily chores. Right now, she is furniture dusting.

Seven Letters A Day! She admitted to the prospects of becoming homesick in the months ahead. But, right now the dark-eyed Central American is averaging seven letters a day from friends at home!

If there is one thing most common to teen-agers in Costa Rica and the United States, what is it?

"The Beatles! They're positively the greatest!" raves "Lola."

The mop-top group from England is as "big" in Costa Rica, according to "Lola" as in the rest of the world.

Choosing her words carefully, Burroughs high school's newest senior thinks her greatest value is in the area of communications.



HOME ECONOMICS teacher, Mrs. Lucretia Becker, gives her "adopted" daughter a tour of classroom kitchen.



BUILDING HIS FUTURE as a career Navyman was Dennis L. Bunch, AE3, as he took oath of allegiance for six more years last week. NAF Executive Officer, Cdr. Denman Knight officiated while bluejacket's wife, Mary, witnessed ceremony.

## Mich Lab Model To Be Featured At Desert Fair

The 14th annual Desert Empire Fair hoists its pennants atop the main tent in Ridgecrest next Wednesday for a five-day run of fun, frolicking and fantasy.

A new NOTS 20-ft. model of Michelson Lab will be one of the feature exhibits under the "Big Top" in addition to local hobby, handicraft, and art displays.

Nightly entertainment is slated for the "Big Top."

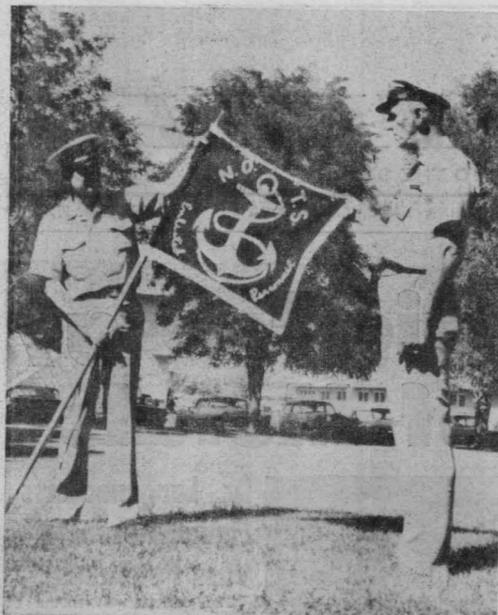
Local schools will close at 2:30 p.m. Friday, Sept. 18, for a "Kid's Day" schedule of pet show, bike parade, auto show and carnival-midway activities.

The final activities in the annual queen contest are to be held Friday evening under the canvas, replete with the pageantry of coronation.

The Fair Parade, scheduled for Saturday, will have actor Glenn Ford serving as Grand Marshal. Scheduled to start at 11 a.m., the colorful event will include bands, floats and equestrian units.

Turtle races, Liar's Derby and other special events are planned for Sunday, following a chuck-wagon breakfast at 7 a.m. Activities continue through the day, with the closing hour set at midnight, Sept. 20.

Helicopter rides, model airplane contests and demonstrations and nightly variety entertainment on stage under the "Big Top" are included in the galaxy of activities on tap.



HAND-PAINTED FLAG was presented by LCdr. Lou B. Shults, CO, NOTS Enlisted Division, last week to Donald M. Smith, QMCM, unit's senior enlisted man. Emblem was designed and painted by skipper and sewn by Chief Smith.

### Gold Paint on Field Of Navy Blues: Flag

A tattered pair of discarded Navy Blues ... some gold paint ... a length of tassel. Put 'em all together — as was done last week — and you have a flag.

"Spirit is the most important element, though," pointed out LCdr. Lou B. Shults, CO, NOTS Enlisted Division.

The 200-man unit didn't have a battalion emblem until last week.

The skipper, an ex-enlisted man who rose through ranks to win his commission, believes a unit's Esprit de Corps is linked to "identity," and its emblem is the focal point of its efforts.

That was his motive in designing and hand-painting the anchor insignia and lettering his unit's name on the piece of trouser leg from a discarded

### Four Field Trips Scheduled For Museum Members

Four more field trips, for members only, have been scheduled by the Maturango Museum.

On Sept. 26, Dr. Pierre St. Amand of the Earth and Planetary Sciences Division will conduct an "Earthquake Tour" through the China Lake area which abounds in tremor evidence. The all-day safari will begin at 7 a.m. from the bus departure lot outside the main gate.

Sometime in October, George Sutherland will lead a tour through Panamint Valley to tell the history of that area.

Hank Wittenmyer will direct a "geography - plus" tour to Randsburg Wash and Mojave B Range in November.

And in December, Curator Sylvia Winslow will take members and their families to some of the ancient lake benches in the China Lake region.

The Museum board of trustees also announced that the 1965 membership drive is on. Anyone paying dues between now and the annual meeting next January is eligible for membership privileges through January, 1966.

## Two NOTS Men in Print; Van Hagan to Give Report

Three photographic magazines have now published Arthur E. Block's article, "The Airborne Camera Capsule," since June of 1963.

Block, Head of the Photographic Section, UCD, NOTS Pasadena, learned that the August issue of Industrial Photography published the capsule story, which previously had been printed in the Society of Engineers Journal and in the Industrial and Commercial Photographer in London, England.

The universal airborne camera capsule described in the article was developed to obtain photographic coverage needed for better flight-test documentation. Design and modifications, type of camera equipment, timing device, and electrical system are described.

The capsule has been flown at speeds up to Mach 1 without need for excessive trim adjustments. Pilots' comments have been favorable, and the photographic coverage obtained has been good.



ARTHUR E. BLOCK



C. E. VAN HAGAN

The isolated scientist who can work productively alone, cut off from his colleagues, has virtually disappeared — a fact that has been increasingly apparent since the end of World War II.

With this observation, NOTS' Charles E. Van Hagan, Head, Information Department, will introduce a paper to be presented at the Tenth Annual meeting of the Western Section, Operations Research Society of America. His subject will be: "The Generation of Effective R&D Reports."

Co-sponsored by the Operations Research Society of Japan and the University of Hawaii (College of Business Administration), the meetings will be held Sept. 14-18 in Honolulu, with Van Hagan presenting his paper on the final date. The occasion also will mark the first International Meeting of the Society.



W. H. THIELBAHR

### Thielbahr Paper In S-R Journal

William H. Thielbahr, aerospace engineer in the Materials Research Branch of NOTS Propulsion Development Dept., had his article, "Thermal Stresses in an Orthotropic, Edge-Grain-Orientated Cylinder," published in the Journal of Spacecraft and Rockets.

The paper tells how the severity of present-day, high-temperature environments has resulted in a search for materials that can maintain structural integrity at high temperatures. The anisotropic materials have received much attention because of their highly directional properties. Some pyrolytically deposited (orthotropic) materials have exhibited increased strength at high temperatures, but, because of their anisotropic nature, severe thermal stresses can also develop. An understanding of these thermal stresses becomes important if these materials are to be used in structures that must perform in high-temperature media.

In his article, Thielbahr provides the engineer with the equations necessary to determine the thermal stresses in an orthotropic, edge-grain-orientated material that takes the shape of a long, hollow cylinder.

### Teach Course On Law Enforcement

A course in the introduction to law enforcement has been added to the curriculum of the Desert Division of Bakersfield College.

Dean Omar H. Scheidt announced that the class, Police Science 51, is being held on Tuesdays and Thursdays from 8 to 9:30 p.m.

The course offers a study in the philosophy and history of law enforcement and includes an overview of crime and police problems as well as a survey of professional career opportunities. Instructor for the course will be Chief George Whaley of the Ridgecrest City Police Department.

### New Barber Shop Hours

The Station Barber Shop will be open from 9:30 a.m. to 6 p.m. starting Monday, Sept. 14.



RED CROSS AWARDS — Three members of the local Red Cross were presented awards last week by Capt. John I. Hardy. Participating in ceremonies (l-r) Capt. Hardy, William R. Parham, field director; Mickey Strang,

### pair of enlisted men's blues.

Donald M. Smith, Master Chief Quartermaster and the unit's senior enlisted man, handled the sewing chores with the aid of his wife, Frankie.

In presenting the new flag last week, the NOTS skipper added a few words that weren't emblazoned on the flag.

"It is only an emblem at this point. To make it meaningful, you'll have to demonstrate the values it represents," he noted, turning it over in brief ceremonies.

The flag will be carried by the guideon at all formal ceremonies in which the NOTS unit participates, LCdr. Shults said.

recipient of welfare aid certificate; Carol Chatterton, 20-year Red Cross service pin; Virginia Langland, welfare aid certificate; and Capt. Leon Grabowsky. Parham succeeded A. L. Pendergrass as field director.

## 52 Couples Enjoy 'Moonlight Bowl' Event on Weekend

BY DICK ZINKE

A novel mixed doubles bowling event was enjoyed last Friday and Saturday evening at the China Lake alleys by 52 couples.

The top mixed doubles teams divided the prize fund with Fred and Vivian Dalpiaz taking first place, scoring a 1241 series. Fred shot three fine games of 225, 211 and 184 scratch for a 620 total.

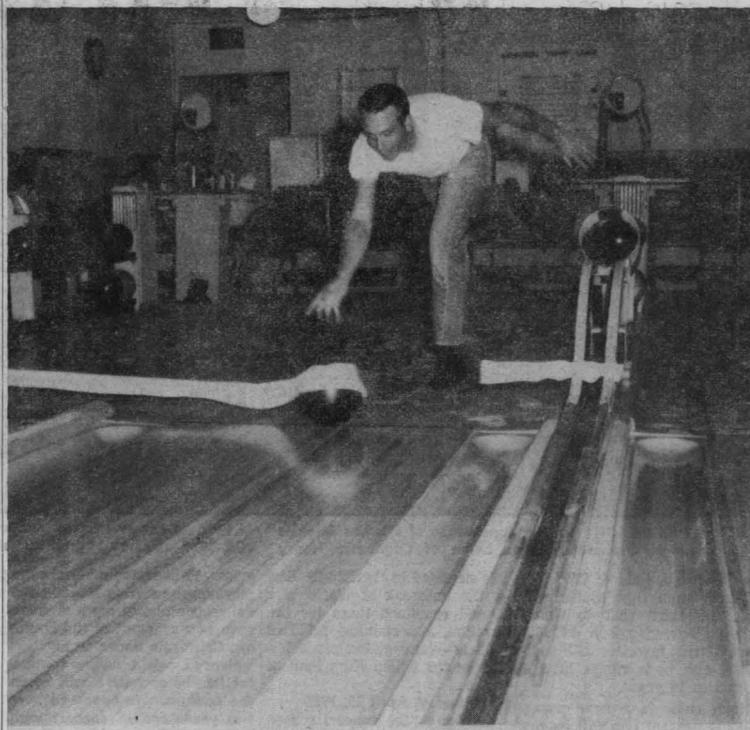
Not far behind, other prize-fund winners were: Paula and Carl Valdez 1226; Pat and Bill King 1186; Sue and Andy Husek 1177; Mary Jane Clark and Del Prescott 1167; Jean and Mike Crom 1166; Melba and Jim Poore 1155; Vivian Dalpiaz and Tom Zurn 1143; Lavon and Chuck Roulund 1130.

This event, and other tournaments have been so successful that similar programs are planned for the future. Watch The Rocketeer for announcements.

The awards for the California State Tournament winners will be mailed on or about Oct. 1 to the men who entered from this area.

All winter leagues are getting under way this week and next. We urge all league secretaries to prepare news items before leaving the alleys.

## 'New' Military Bowling Alley Opens



BREAKING THE TAPE to inaugurate the renovated Military Bowling Alley is Alvin G. Crowe, AK2. Lanes have new Telescopes and a seating section for spectators.

### Lanes Resurfaced, New Equipment, Seats Installed

With new equipment glistening and older portions renovated, the "new" Military Bowling Alley opened Wednesday night with appropriate ceremonies.

The interior has been repainted, spectator stools have been replaced by a seating section, the four lanes have been re-surfaced, new Telescopes and ball-returns have been installed and the snack bar has been refurbished, Manager George Whiddon, AK1, proudly announces.

The alleys are in the building behind the Post Office and Malt Shop in Bennington Plaza.

Bowling is open to all military. Bowling balls are furnished free, and shoes rent for 10 cents.

Four leagues competed last year, and Whiddon is anticipating an increase in activity this fall season, particularly with the "new look" at the place now.

### Finny Thought

Fish isn't brain food. Some people eat fish on Friday, and then do the silliest things over the weekend.

## Scene and Heard

(AFPS Weekly Feature)

The Durango Kid and the Lone Ranger and those other guys who could ping a silver dollar at 100 paces probably couldn't hold a candle to Bill Blankenship, who isn't a cowboy but today rides herd on the nation's pistol shooters.

Blankenship is a 34-year-old Army sergeant stationed at Ft. Benning, Ga. He kicked off the 1964 National Rifle and Pistol Matches held recently at Camp Perry, Ohio, by winning his fifth straight national pistol championship.

The sergeant's notches long ago made it necessary to lengthen the handle of his pistol. His long list of firsts includes the national scoring record—2654-151, set last year at Camp Perry. He is one of the few shooters to hold distinguished badges for both rifle and pistol. He is the only triple distinguished marksman in the Army. No other shooter in history has ever won the national pistol championship more than three times in succession.

As a Detroit policeman Blankenship won the crown in 1940 and '41 and then took it again in 1946 after the matches were suspended four years because of World War II. With a string of five straight behind him, there is no reason to believe he won't stay top gun for a long time.

Blankenship admits that being on top for such a long time means pressure, but he says he tries not to worry about his many challengers, and that's okay because the Lone Ranger didn't sweat it too much, either.

"I try not to pay too much attention to the scores that the others are shooting during the matches because I must shoot against myself," the Army Marksmanship Unit instructor said.

Who are these people zeroing in on Blankenship's record? Look no further than the Air Force, Navy and Marine Corps, whose members always make their presence felt at Camp Perry. Blankenship's winning score this year was 2642-112, not too far short of his record but enough that it gave his biggest challenger a breath of hope. In second place was Air Force Capt. Thomas D. Smith, of Lackland AFB, Tex., who fired 2639-132. In third place was Petty Officer First Class Donald L. Hamilton, of Weymouth, Mass., who shot a 2635-112 score.

Meanwhile, the parallel to that "who'd-that-masked-man-say-he-was" stops here. After Blankenship cleans up the opposition he doesn't leave silver bullets lying around for puzzled people to bite on because, if for no other reason, it's bad for your teeth.

### Deep-Sea Cores Dated 20 Million Years Old

Scientists from the Institute of Marine Science, University of Miami, have succeeded in drilling 186 feet into the ocean floor at a depth of 2000 feet at a Caribbean site southwest of Jamaica. Working from the ships Sumarex and Gerda, they have obtained deep-sea sediments dating back some 20 million years. (From Hydrogram)

### 'Riffifi' First For Film Society Season

"Riffifi," the first offering of the China Lake Film Society's 1964-65 season, will be shown Monday, Sept. 14, at 8 p.m., in the Community Center. There will also be a showing at 8 p.m. Tuesday evening, Sept. 15. Season and half-season tickets will be available at the door, beginning at 7:30 p.m. Contact Larry Mesple at Ext. 72600 or 71436 for further information.



SAILORS BE AWARE — With a nautical-but-nice look, a pert Californian models her choice in swim wear, an outfit called "Fleef's In."

### SPORTS QUIZ

1. Who was the last playing manager in the major leagues?
2. Jimmy Carter held the world's lightweight boxing title three different times. He lost the title for the last time in 1955. Who beat him in that bout?
3. The New York Yankees have the most single club victories in the world series. What club in the National League has won the most world series?

Answer to Quiz

1. Solly Hemus, when he managed the Cardinals and played in 24 games, mostly as a pinchhitter, in 1959. The last player in over 125 games who was a manager was shortstop Lou Bourdeau with the Indians in 1949.
2. Wallace (Bud) Smith.
3. The St. Louis Cardinals with six victories in nine appearances.

## Looking Into the Pro Grid 'Crystal' Pigskin

(Part One—AFPS Football Series, 1964)

The way professional football is played today, the only thing certain is that nothing is certain. It has been the pro format for a decade and was never more evident than last season.

In both the National Football League and the newer but firmly established American Football League, the 1964 forecast again points to a season with tight division races, volatile offenses, interesting defenses, packed houses and the "guarantee" that somebody will upset somebody every weekend.

It's the uncertainty in the leagues that breeds excitement and indicates another record year at the gate. There are the favorites, of course, but who wants to predict the Chicago Bears a sure-winner in the NFL, or the San Diego Chargers a shoe-in in the AFL?

NFL (EASTERN) — Meet me in St. Louis, Louie, because it could be the Cardinals' year. With a bevy of backs like Crowe, Gault, Childress and Triplett, St. Louis depth has the other six division clubs worried. The Giants, as usual, will go as far as Tittle can take them, but New York now has defensive troubles. A dark horse: the Washington Redskins, whose trades have given them a new look. A team with Brown on it is always a threat, but Cleveland needs more than Jimmy. Dallas is another club deep in talent and could go all the way. Pittsburgh has a sure toe in Lou Michaels, not much in the way of a consistent offense. The "new" Eagles won't be the patsy they were in '63.

NFL (WESTERN) — Can the Bear offense take the pressure off the fantastic Bear defense, the biggest single factor in Chicago's '63 championship? The Packers don't think so, mainly because they lost twice to the Bears last year and have made moves to see it doesn't

happen again. Baltimore, with Unitas, and Detroit, with its great linemen, are not to be counted out. Mira's arm should pitch the 49ers into prominence, but not this year. Minnesota and Los Angeles are low in experience.

AFL (WESTERN)—San Diego to repeat, but certainly not as easily. Oakland won one game in '62, finished 10-4 last year. Indications are that the Raiders should show more improvement. Kansas City, the AFL's puzzle club, has the horses and good rookies. Lowly Denver traded like mad in the off-season.

AFL (EASTERN) — A toss-up, and that includes the New York Jets. Says Jet Coach Weeb Eubank, "We don't have a lot of fancy names, just good ball players." Buffalo, with Cruncher Cookie, and Boston, with its fine passing game, are the co-favorites, but New York and Houston certainly are not headed for embarrassment. The Oilers, though they lack consistency, are long on explosiveness.

### Navy Night Tickets On Sale Monday

"Navy Night at Disneyland" tickets will go on sale at the Community Center on Monday. These tickets are available to Naval personnel, their dependents and guests. This event is scheduled for Sat. Oct. 24 from 7:30 p.m. to 12:30 a.m. Admission to the Park will be by "Navy Night" tickets only priced at \$3 each for all persons over three years of age.