

Forty-five Corona Employees Presented Awards in Ceremony

Forty-five employees of the Naval Weapons Center Corona Laboratories received monetary awards in a program at the Laboratory Friday morning, December 1.

Eighteen had submitted beneficial suggestions which are estimated to total \$24,000 in savings for the year. Twenty-six shared 18 awards covering 28 inventions related to the research work being done at the Laboratory. One, Jewel Dean Stebbing, was given a Quality Step Increase in recognition of her outstanding performance for the year.

to lab for a precision grid for printed circuit layouts.

The other 17 were: Constance E. Crawley, Billie D. Litz, T. Boyd Taliaferro, Roy Apple, Earl F. Marx, Bernard N. Stout, David A. Schriener, Daniel K. Tillmanns, Lauren R. Lott, Garth B. Anderson, and Howard M. Forrester. Others were: James H. Bennison Jr., Jay Dee Ward, James C. Chambers, Rodney Albertson, Barry S. Todd, and Norbet E. Tackman.

Welcome Aboard



L.T. GEORGE W. GRAFT has begun his new work with Weapons Planning Group after reporting to NWC last Friday from the USS Dale, where he was Fire Control Officer. Lt. Graft is a native of Billings, Montana, and a graduate of the University of Nebraska with B.S. degrees in Physics and Math. Oil painting is his off-duty interest. He brings his wife Shirlene and son Jay, 9, to their new home at 309-A Fowler.

Others were: Erwin I. Abadie, Dewey A. Roos, Charles R. Hamilton, Warren R. Hoelzen, and Alvi n E. Henderson.

The most valuable beneficial suggestion award was made to Harold G. Watson of the pho-



TAKING TEN — Members of the Greater Bakersfield Chamber of Commerce, Military Affairs Division with Naval Weapons Center golfers take a brief break during their round of golf on the China Lake Golf Course recently. From left, Cdr. J. D. Eden, Capt.

Charles Lee, Phil Crowell, Dick Griffin, Paul Meyers, Ed Richardson, LCDr. Ed Ruess, and Don Fraser. Approximately 20 visitors attended the Annual Home and Home Golf Match. During their stay here they received a short briefing on NWC mission.

SHOWBOAT

FRIDAY DECEMBER 8
"THE AGONY & THE ECSTASY" (136 Min.)
 Charlton Heston, Rex Harrison, Diane Cilento
 7:00 P.M.
 (Spectacular) The historic conflict between Michelangelo (Heston) and Pope Julius II (Harrison) is a fascinating story of ancient Rome. The famed works of art complete with scenes of the Pope's warring armies. It's a BIG film. (Adult, Youth, Very Mature Children.)

SATURDAY DECEMBER 9
MATINEE
"LASSIE'S GREAT ADVENTURE" (103 Min.)
 David Ladd
 1:00 P.M.
 Shorts: "Aqua Duck" (7 Min.)
 "King of the Carnival" No. 1 of 12 (20 Min.)

EVENING
"THE SPIRIT IS WILLING" (100 Min.)
 Sid Caesar, Vera Miles
 7:00 P.M.
 (Comedy) Poor Sid rents a seaside house that is haunted by three rolicking ghosts who really give him a bad time when his rich uncle arrives in a new yacht. What a way to spend a vacation—with a ghost in every closet! (Adult.)
 Short: "Think or Sink" (7 Min.)

SUNDAY-MONDAY DECEMBER 10-11
"A GUIDE FOR THE MARRIED MAN"
 (92 Min.)
 Walter Matthau, Ingeborg Berg, Robert Morse
 7:00 P.M.

(Comedy) When a married man gets roving ideas, and his philandering next-door neighbor coaches him on the art of "cheating" it is bound to end up in a roaring laughfest. The instructions include visual skits done by Lucille Ball, Jack Benny, Polly Bergen, Joey Bishop, Art Carney and Jane Mansfield. Don't miss! (Adult.)
 Short: "Zoom and Bored" (7 Min.)
 "Where in the World" (9 Min.)

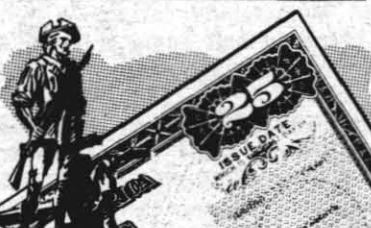
TUESDAY-WEDNESDAY DECEMBER 12-13
"THE DIRTY DOZEN" (151 Min.)
 Lee Marvin, Ernest Borgnine
 7:00 P.M.
 (War Adventure) Don't miss this superb, slam-bang, thrill packed story of an Army Major chosen to lead 12 condemned, or long term, prisoners on a mission to destroy a German High Command rest resort. Comedy and tragedy mingle with mayhem as the tough patrol carries out orders. One of the best films of the year! (Adult, Very Mature Youth.)

THURSDAY-FRIDAY DECEMBER 14-15
"HOUR OF THE GUN" (101 Min.)
 James Garner, Jason Robards
 7:00 P.M.
 (Western) Wyatt (Garner) Earp and Doc (Robards) Holiday win the showdown at the O.K. Corral and then have to face Ryan's murderous rustling mob, which has been plaguing Tombstone territory. A rough, tough, man's western. (Adult, Mature Youth.)
 Short: "Pink Fink" (7 Min.)

Camera Club Print-of-the-Month



PRINT-OF-THE-MONTH selected by the China Lake Photographic Society was made by William E. Carlson, a graduate of Burroughs High School, during the 1966 Bakersfield Junior College stage play "Life With Father." Fascinated by identical period costumes worn by the Chapman brothers, Carlson arranged an informal composition under available flat stage lighting and recorded the scene on 120 Verichrome Pan film with his Yashica-Mat twin lens camera. Carlson didn't realize it at the time, but he had all the elements necessary to produce a modern version of an 1839 daguerreotype.



Buy U.S. Savings Bonds

CENTER LIBRARY LISTS NEW BOOKS

A complete list of new books is available in the library.

- Fiction**
 Bodsworth—The Sparrow's Fall.
 Brand—Max Brand's Best Stories.
 Farris—When Michael Calls.
 Shannon—Rain With Violence.
 Strindberg—Scapegoat.
- Non-Fiction**
 Crosby—Bing and Other Things.
 Dayan—Israel Journal: July 1967.
 Edwards—Flying Saucers—Here and Now.
 Lilly—Mind of the Dolphin.
 Pourade—The Explorers.
 Tedder—With Prejudice.

From _____

TO _____

STAMP

CROSSWORD PUZZLE

Answer to Previous Puzzle

ACROSS

- Soft food
- Commemorative disk
- Jump
- Ventilate
- Get up
- Native metal
- Spirited horses
- Stings
- For shame!
- Scorches
- Genus of maples
- Pronoun
- Wants
- Distant
- Animal coat
- On the ocean
- Prefix: not
- Bank employees
- Greek letter
- Hind part
- Simple
- The sun
- Ancient chariot
- Registered nurse (abbr.)
- Snips
- Chairs
- Pigeon pea
- Outer shell (pl.)
- Color
- Swiss river
- Consumed
- Female sheep
- Change color of
- Waste matter
- Openwork fabric

DOWN

- Dance step
- River island

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SPECIAL FEATURE
 U. S. SEAPOWER
 —ON THE MOVE
 An address by
 ADM. T. H. MOORER
 Chief of Naval Operations
 See Pages 4-5

New Rocket-Powered Shell Boosts Reach of Fleet Guns

'RAP' Round Meets New Warfare Demands

The age of missile weaponry will soon bring new power to that "old-fashioned," standard U.S. Navy weapon, the five-inch gun, as the China Lake-developed Rocket Assisted Projectile (RAP) project moves closer to the production line.

The RAP rounds, in both 38 and 54 calibre, look like ordinary five-inch rounds. But each one carries a rocket motor packed with a new, high-performance solid propellant which boosts the round much farther than the gun would ordinarily fire—as much as a third farther. Code 45 is the project managing agency for RAP.

Through its greater range, RAP will offer American destroyers a large increase in safety by allowing them to keep farther offshore, a way from enemy batteries. The destroyers represent the bulk of the Navy's five-inch gun strength, and are important in support of Viet Nam operations.

RAP-carrying destroyers will soon be firing deeper missions in support of amphibious assaults, according to the Propulsion Development Department. Such missions would include harassment fire on troop movements and supply lines, and neutralization fire against enemy units located miles behind the beach.

Motor is the Key

Research and development first began here on the RAP concept back in 1962, and accelerated as combat and Amer-

ican involvement in Viet Nam increased. Joining NWC in the RAP program are Dahlgren Naval Weapons Laboratory, maker of the warhead, and Naval Ordnance Laboratories at White Oak, who are developing a new proximity fuze.

RAP is really made possible by its fast burning, shock resistant propellant.

"This is the Center's principle contribution to the RAP round," says Earl G. Love, head of Code 45's Program Management and Integration Group. The propellant is a high-density, high-impulse type, using the well-known Teflon, plus Viton, as a binder, and is so tough that it withstands the 18,000-G load of the gun firing and the 12,000 G's of radial acceleration produced by the gun's rifling, with negligible deformation.

A key to obtaining maximum range is the unique igniter,

which delays motor ignition until the round is at the optimum point on its trajectory, according to Bob Dillinger, head of Propulsion Components Branch.

Upon ignition, the RAP motor provides a substantial increase in velocity, which gives the increase in range.

The igniter device, actuated by the gun's high chamber pressure, incorporates a percussion primer and 23-second pyrotechnic delay column. The motor is a booster type, providing high thrust for about two seconds.

Two of the leading development people in the RAP program here are Irv Witcosky, program manager in Code 4503 and Howard Payne, Code 4573, project engineer in charge of motor development. In addition to the RAP round, the Center

(Continued on Page 3)



LOADING A RAP — Ordnanceman W. H. Smith loads propellant into a RAP round under the eyes of Bill Koch, mechanical engineering technician. Fuel and motor easily take 18,000 G's of 5-inch gun launch, plus 12,000 G's of spin through the rifling. High-impulse fuel burns for about two seconds, 23 seconds after launch. Howard Payne of Code 4573 is project engineer for motor.



EXTRA MUSCLE FOR THE FLEET — Irv Witcosky, project manager for RAP, shows test-launched propellant extrusions to Earl Love, head of Code 45's Program Management and Integration Group. RAP 5-inch round was fired from gun with negligible deformation to tough, high-performance

propellant. Cutaway model shows (l-r) unique igniter, propellant, warhead and old Army-type proximity fuze, to be replaced with new type, especially for use by the Fleet. Calibre 38 (shown) and 54 RAP rounds average a third greater range due to the unique igniter system.

Fellowships Open To Center People For Graduate Work

The Daniel and Florence Guggenheim Foundation will provide at least nine fellowships for the 1968-69 academic year for study in rocket propulsion, flight structures, and space flight. The fellowships are tenable at the Guggenheim Laboratories for the Aerospace Propulsion Sciences at Princeton University, at the Guggenheim Jet Propulsion Center at the California Institute of Technology, and at the Guggenheim Institute of Flight Structures at Columbia University.

The fellowships pay tuition and provide a stipend of up to \$2400. They are open to all engineers and scientists qualified to pursue graduate study. Preference will be given those under 30 years of age.

(Continued on Page 3)

China Lake Community Council -- The Voice Of A Community

Council Strives To Promote Civic Improvement - Community Betterment

BY BOB MCKNIGHT

Typical of any accomplishment, success of Community Council endeavors depends on the skill and competence of its members. Within the China Lake Council, a geographic base is preserved in the election of directors, to provide the potential for representation for areas with unique problems. Directors are involved, however, in many joint activities with other groups, both on the Naval Weapons Center and in the outlying area.

The Community Council is, today, a formally incorporated body whose purpose lies primarily in promoting wide-spread interest in community improvement and civic affairs. The President of the Council, currently Kenneth D. Miller, is by NWC policy established as a voting member of the Community Policy Board with the executive officer and associate technical director.

Two directors of the Community Council are also, by policy, established as members of the Community Hearing Board. In its hearing of citations for violation of administrative regulation that pertain to the community, the Hearing Board serves as a first appeal level. The Policy Board similarly serves as a second level of appeal, and is responsible for hearing individual problems.

Operation of the Community Council can be traced back through activity of the Employee Welfare Association established in 1945. The Council, incorporated in 1952, provides means for participation in the more complex problems which arise by residents of the community affiliated with the Naval facility.

In more recent years, the Board of Directors of the Council has established a comprehensive committee structure. "Standing" committees, such as the Executive, Ways and Means, Education, Community Improvement, Housing, and Recreation committees, are supported by "task" committees which study and report on affairs of special interest. This approach for gaining accurate, detailed, and factually complete information permits all to become fully aware of facts without needless and confusing duplication of effort.

Members of the Council are elected representatives. Your ideas and suggestions can be presented to the director for your precinct, can be mailed to

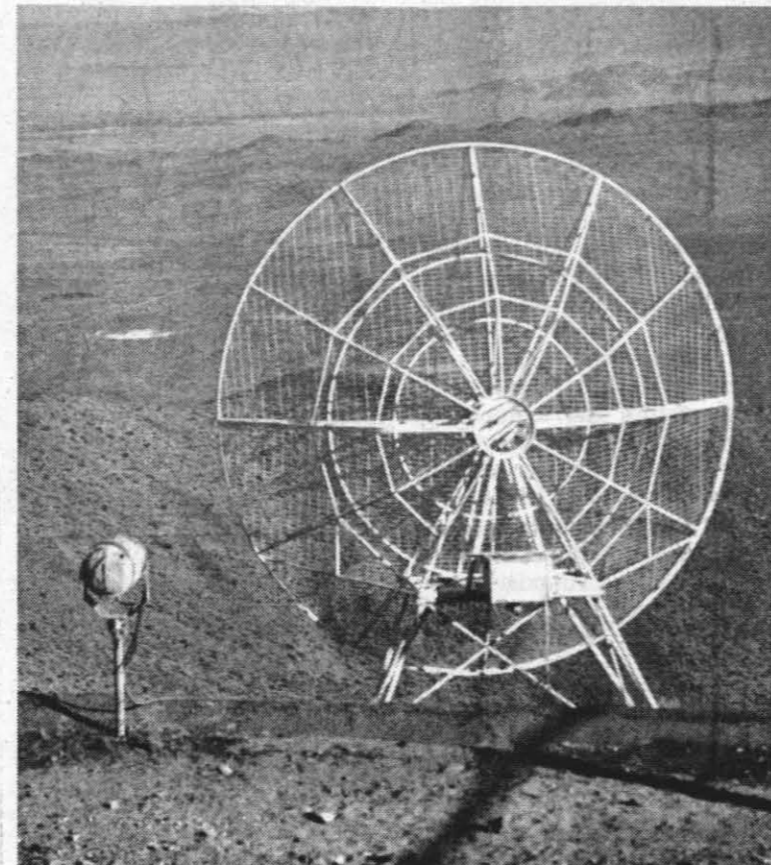


COMMUNITY COUNCIL IN SESSION — The Community Council meets in regularly scheduled sessions each second and fourth Tuesday of the month at the Community Center. Serving to voice sentiment of constituents to groups most fitted for effective action, the Council has participated in many efforts toward civic betterment. O. A.

Imer, Larry Mason, Mrs. Wardna Abernathy, and Warren Stelzmler, with other directors of the Council, hear a petition for a recreational area near Vieweg School. The petition, signed by more than 300 parents, was presented by Don Cooper and Wallace Bruce, in behalf of boys. Directors are involved in joint activities with other groups.



HOUSING LIMITING FACTOR TO COMMUNITY GROWTH — Housing as a limiting factor to community growth was rated a major problem in the Ridgecrest/China Lake area, following discussion at the Town Hall Meeting Tuesday evening, November 14. The China Lake Community Council invited representatives of China Lake, Ridgecrest, and Kern County, to participate in an open session of the Council as a special panel for a "grass-root" exploration of issues and answers with people of the community.



PLANS DISCUSSED — At the recent Town Hall Meeting plans were discussed to improve the TV Booster Station. Shown above is one of the TV antennas used to boost the signal into the Indian Wells Valley.

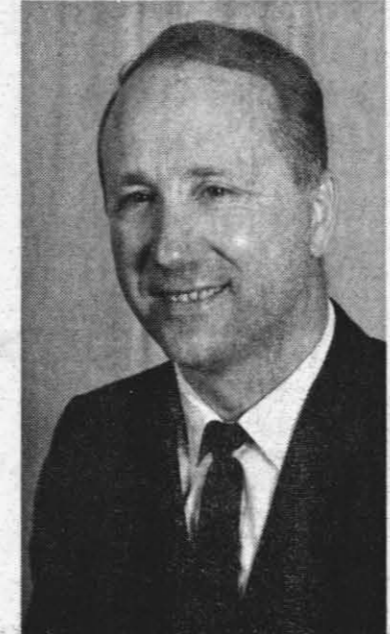


BOYS BUILD A BALLPARK — Assembling a petition signed by more than 300 parents, boys of Capehart "B" area asked the Community Council to help them obtain a playground. With assistance from the Public Works Engineering Division, Maintenance Control Division and the local Naval Reserve Seabee Unit 11-2, the boys cleared

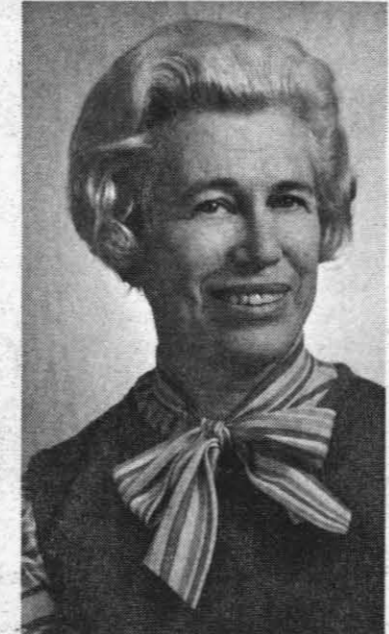
the area and prepared the site. Soon after the first of the year a sprinkler system and lawn will be installed. Hal Harney, Director on the Community Council, coordinated activity as an assistance to the boys. Wallace P. Bruce and Donald W. Cooper are the boys sponsors. Members of the Council are elected representatives.



MUSIC FOR A VALLEY — Harold L. Washmuth, who spearheaded a financial drive for an FM radio station for the Indian Wells Valley, discusses operating status at a recent meeting of the Community Council. The FM Translator project has been a long-range and interesting project of the Council for several years.



KENNETH D. MILLER
President



RUTH SCHUYLER
Vice President



WARREN STELZMILLER
Treasurer



HAZEL CAMPBELL
Secretary



WARDNA ABERNATHY
Director

the Council, or can be presented in person at Council meetings.

The FM Translator

With a very high antenna, one can pick up FM Stereo without any booster in several places in the Indian Wells Valley. Reception, however, may change in quality from time to time, and may be affected by weather or other factors. FM Stereo sound does come into the Valley by means of a unique system, permitted by the Federal Communications Commission (FCC) and experimentally developed here in China Lake.

Known as an FM Translator, the system receives signals high on Laurel Mountain from Mount Wilson, and re-broadcasts FM Stereo into the Valley with the maximum power permitted by the FCC for the experimental equipment. The FM Translator project has been one of the long-range plans of the China Lake Community Council for several years.

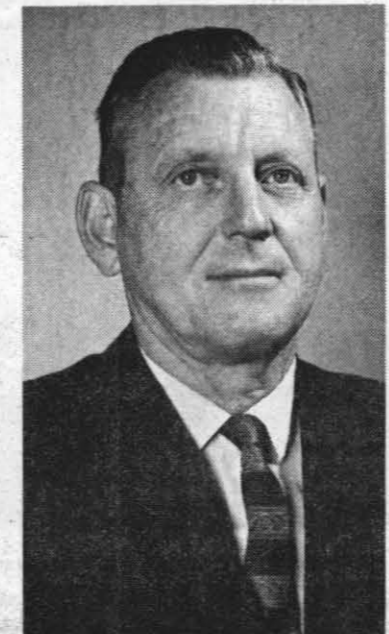
Initial coordination for the project was given by William Hattabaugh, former President of the Council. Required equipment for system installation was procured through a fund-raising drive sponsored by the Council in 1966. The drive, led by Harold Washmuth, developed a fund of nearly \$2200 for equipment and operating expenses. Small sums needed for modifying equipment have also been provided by the Council. Through efforts of Hattabaugh, the station is now experimentally licensed by the FCC, and is on the air.

Gypsy Wheels

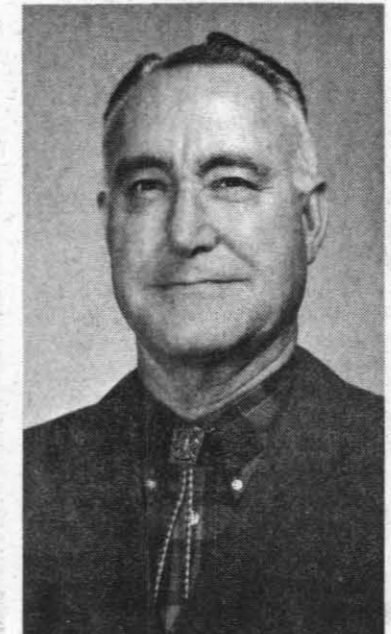
Across the country, many groups have been formed to promote safe family recreation. At China Lake, the care and feeding of motorcycles, when used for family exploration of the interesting countryside, has been studied with great interest.

Because training and experience contribute so much to safe handling, a course has been set up in the dry lake area to help members of the family learn techniques in motorcycle operation. The practical experience exercises, and certain class sessions on motorcycle safety are taught by members of the Gypsy Wheels and Sand Blasters Clubs.

The China Lake Community Council provided funds to get Snell-approved safety helmets for those taking the course.



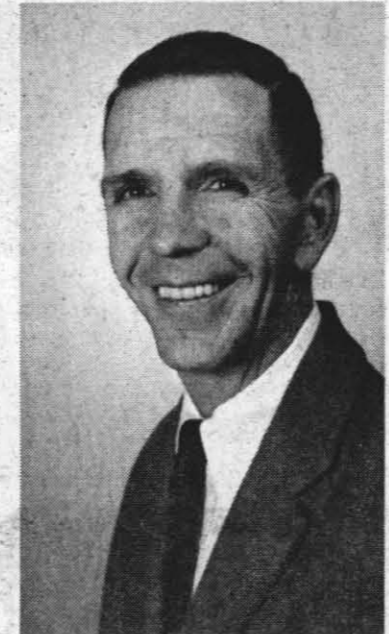
O. A. IMER
Director



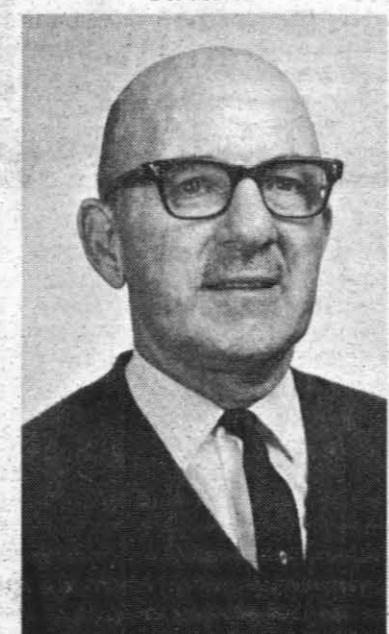
HAROLD E. HARNEY
Director

COUNCIL MEETS

The Council meets the second and fourth Tuesday each month at the Community Center at 7:30 p.m.



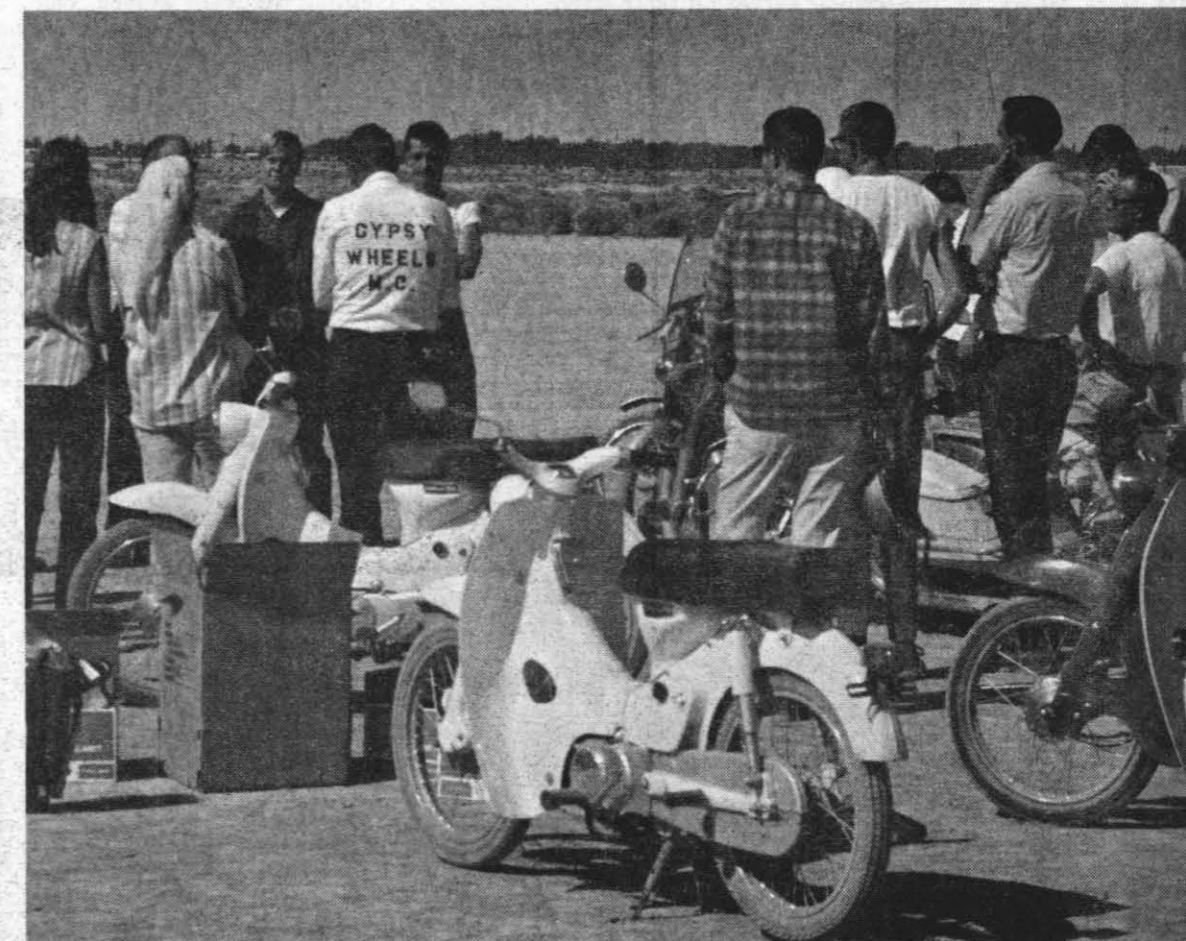
R. K. MCKNIGHT
Director



LAWRENCE MASON
Director



BEAUTY PAGEANT WINNER — Miss Wendy Sorenson, chosen Miss Ridgecrest - China Lake in May of this year, discusses plans sponsored by the Community Council and the Ridgecrest Chamber of Commerce. Miss Sorenson has spoken before the Kiwanians of Ridgecrest, and has appeared at the Military Ball at March Field near Riverside, California, in recent weeks. Successful competition in the Kern County Beauty Contest next Spring could lead to the Miss America title in Atlantic City.



SAFE RECREATION KEYNOTE — To preserve pleasure by adequate training in the safe handling of motorcycles, the Gypsy Wheels Club trains members of the family on a prepared course in the dry lake area.

Skill in handling vehicles is taught as a necessary requirement for safety. The Community Council provided funds to get Snell-approved safety helmets for members receiving instruction in the course.

Center Fellowships Deadline Date Advanced to February 1

The spring deadline for applying for NWC (NOTS) Fellowships, formerly April 1, has been advanced to February 1, effective this year, to coincide with the deadline for WEPCOSE Awards, per a recommendation recently made by the Education Committee for Ordnance Sciences. The change was made to permit both sets of applications to be considered at the same time and to allow earlier notification to be given successful NWC applicants than has been possible in the past.

Approximately 20 NWC Fellowships, two Senior NWC Fellowships, and five WEPCOSE Awards are scheduled to be available to Center employees again this coming academic year for support of graduate study. Some of the present NWC Fellows plan to apply for extensions of their fellowships; however, an estimated eight fellowships are expected to be available for assignment to new applicants.

The WEPCOSE Program is sponsored by the Office of Civilian Manpower Management and provides advanced training in weapon control systems engineering and operations research. Ten schools currently offer the training. Five of these are located on the west coast; namely, Stanford University, University of California at Los Angeles, University of California at Berkeley, California Institute of Technology, and the University of Washington. The

awards are normally limited to an academic year of two semesters or three quarters, but may be extended to cover a full calendar year if the planned course of study warrants.

Costs, including salary, tuition, and certain supplementary expenses, are paid out of a central Navy fund. Candidates nominated by this Center join others from other west coast participating Navy activities the early part of March for interviews and examinations. Final selection is made by a special WEPCOSE committee. The Center, in the past, has had from three to five employees in this program each year. This present year there are four.

NWC Fellowships are sponsored by the Naval Weapons Center and are funded partly by a central Navy fund and partly by the Center. The costs covered are approximately the same as for WEPCOSE Awards. NWC Fellowships are available for support of any kind of advanced technical academic training that is urgently needed by the Center. Applicants are expected to designate schools in the western United States. An exception will be allowed if there is strong justification for choice of another school.

Employees interested in applying for NWC Fellowships or WEPCOSE Awards should contact the Education Director (Code 015) for further information and application forms.

Christmas Opera Slated In NWC Chapel Dec. 9-10

"Amahl and the Night Visitors," Gian-Carlo Menotti's short Christmas opera, will be presented Saturday, December 9 and Sunday, December 10 at 8:30 p.m. in the All Faith Chapel.

The free performance, sponsored by the Chapel, will feature Bart Moore as the crippled boy, Amahl, and Ann Gilmer as his impoverished, widowed mother.

The three kings who visit them on their journey to Bethlehem will be played by Warren Kirk, as Kaspar, Jim Lewis, as Melchior, and Wayne Carpenter, as Balthazar. Mark VanBuskirk will act the part of the kings' page.

The story unfolds as Amahl's mother realizes that for guests, the kings, bear gold and other gifts for the Christ

child, whom they have never seen. In desperation she tries to steal some of the gold so that her child need not starve.

When the page catches her in the act, the kings kindly explain the nature of the child they are seeking, and the mother agrees that such a child deserves all their gifts.

Amahl also wishes to send him something. He offers the kings his only possession, his wooden crutch, and his crippled leg is miraculously healed.

Organ accompaniment for the opera will be provided by Joan Fowler. Mary Lou Jones will play the piano. The chorus of shepherds is directed by Dovie Leonard, and dances were choreographed by Joan Leipnik. Florence Green is in charge of costumes.



DANCING FOR KINGS — Maelo Pickett (left), Joan Leipnik and Wilma Zeutzius are among shepherds who dance to entertain the three kings during Menotti's "Amahl and

the Night Visitors." The short Christmas opera will be presented Saturday, December 9 and Sunday, December 10 at 8:30 p.m. in the All Faith Chapel.

Youth Activities Sponsors Hoop Leagues for Boys

Youth Activities is sponsoring two Basketball Leagues for boys ages 10 through 14 who have parents assigned to or working at Naval Weapons Center.

The Elementary League is for boys in the 10 through 12 age group; the Junior League for the 13 and 14 age group. Monday, January 1, is the determining date for eligibility in either league. Boys who are playing on a high school varsity team are not eligible for the League.

Registration fee is \$2.50 and can be paid at the Youth Center, weekdays after 2:30 p.m. and Saturdays after 1 p.m. Uniforms will be issued on a first-come basis and according to numerical sequence of paid registration fees.

It has been estimated, according to Youth Center officials, that there will be six teams in the Elementary League and four in the Junior League with 12 boys per team. Games will be played in the Center Gym Saturday mornings or evenings at 6 p.m.

Tomorrow night at 7 p.m. tryouts will commence for placing boys on the teams in the Center Gym. Boys who cannot be present should contact the Youth Director at Ext. 72909.

NAACP Holds Rummage Sale Over Saturday

Stacks and racks-full of new, near new and top condition merchandise will be on sale tomorrow morning at a rummage sale in the former New Hope Baptist Church building, sponsored by the Indian Wells Valley Branch of the National Association for the Advancement of Colored People.

Items on sale will include clothing for men, women, children and infants; handbags, belts and other accessories; kitchenware and other household goods.

NAACP ladies will serve home-made cake, coffee and punch to shoppers. The sale will begin at 9 a.m. and continue through 6 p.m. The location is at the corner of Kay and Reeves Streets, a block east of the American Legion Hall along Inyokern Road and a block south of Inyokern Road at Reeves.

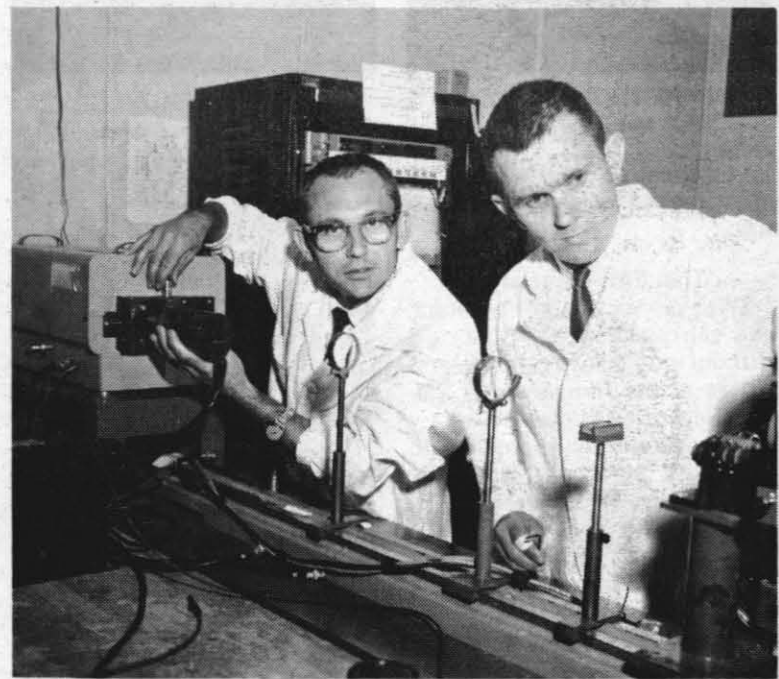
Research Scientists Simplify Measurement of the Ultraviolet

Dr. Hubert H. Caspers and Dr. Howard E. Rast of the Naval Weapons Center Corona Laboratories have disclosed that by using a phosphorescent cell in a photomultiplier, the instrument will respond to ultraviolet rays that could not be detected by an ordinary photomultiplier using a glass window. Their disclosure was recently published in an article in Applied Optics.

The photomultiplier is an electronic device that measures the intensity of light. When exposed to light, the device emits electrons which are accelerated by an electric field. Thus, by measuring the current of discharged electrons, the intensity of the light can be determined.

Photomultipliers may be used to determine how specific materials absorb and emit light. The resultant knowledge is important to the design and manufacture of electronic components used in missiles.

The two scientist - authors have received several requests for reprints of their informative article — two of which came from foreign countries.



NAVAL RESEARCH SCIENTISTS — Dr. Hubert H. Caspers (left) and Dr. Howard E. Rast conduct light measurement with photomultiplier. Photomultipliers may be used to determine how specific materials absorb and emit light.



HEADS FOR THE GOOD LIFE — Rex Nichols of the print shop, departed NWC Corona Laboratories recently for Portsmouth, New Hampshire and a new position at the Portsmouth Naval Shipyard.

Call Of The Wild Beckons Nichols

The call of the wild and the desire to be near his in-laws proved too much for Rex Nichols of the print shop at Naval Weapons Center Corona Laboratories, who with his wife and two children left recently for Portsmouth, New Hampshire. He is transferring to the Portsmouth Naval Shipyard.

Nichols had been given a fishing camp in the wilds of Maine a few years ago, and he says that is a strong attraction to a man who likes to fish. He has been to the camp a number of times when it was previous-

ly owned by his father-in-law. It is located on Grand Lakes, a chain of lakes in the New Brunswick country. The nearest town is 50 miles away. A dirt road leads to the water's edge, and the last five miles are traversed over water, Nichols said. The cabin is in timber lands and is leased from the lumber company.

Nichols, who is 30 years old, was born in Indiana but grew up in Norco, is making the cross-country trek with his family traveling in a camper, and pulling a trailer loaded with furniture.

S. Seapower -- On The Move

which exercise almost the entire spectrum of Navy capability in limited war.

There are at least three other main reasons for the inevitable increase in the influence of seapower in our immediate future. One is the wide variety of future military strategies being developed which lend themselves to the use of the oceans. These strategies are not static. Strategies today, a product of our constant learning through the evolution of science and history, must, to be effective, run the entire gamut. That is, we must be prepared or almost any contingency in any environment in any area of the world.

In taking this large view, there is an awakening to the advantages of the ocean areas. They are away from our population centers, yet they are in proximity to all major population concentrations in the world. The oceans provide the only area wherein potential conflict does not involve the civilian populace. The oceans, contiguous to the lands of those who would choose not to be our friends, provide to a strong naval power the means of sealing off and combating the enemy under the water, on its surface and in the air in his own backyard — far away from American shores.

In this world of micro-second communication, supersonic transportation and weapon delivery, the world grows smaller by the minute. As long as three-quarters of its surface is covered by water, any war must necessarily include a wet war — waged in support of our Army, our Air Force, and our Marine Corps.

As our technology continues to leap forward, new ways of utilizing the oceans continue to present themselves. As contributors to the Navy's forward movement, I have mentioned our technical expansion, our performance in Vietnam and just a suggestion of the strategic options which are and will open to the sea. Next among the prime movement factors or indicators of increased seapower need and utilization is the acute shrinkage of overseas bases available to U.S. forces. Coupled with this is the impact

of the British reduction in their naval presence in the Middle East and the area east of the Suez.

It is a simple matter of record that at the end of the Korean War in June, 1953, the United States had the rights to use a total of 551 major overseas bases. In December, 1966, our total bases numbered 179 — a decrease of 372 major bases or almost 70 per cent. A current case in point is the recent conflict in the Middle East. As you know, in that instance it developed that the air bases that had been available to us around the littoral of the Mediterranean became either unavailable for political reasons, or were of minimal use because of the distance factor. As it evolved, the only forces that could be put into position immediately were sea-borne forces and with the nationalism of newly emerging nations being felt all over the world, it is quite clear that as time goes on the availability of bases which we have come to rely on for routine military missions and possible contingencies is going to continue to be diminished.

What this means to me is that we are going to have to take another look at the way we have been operating our military forces and as always, be ready to adapt to change. It is quite clear that such an examination might readily dictate the movement of more of our military capability to sea. It is, I think, well known that the deployment of Naval forces on the international oceans cannot be equated with the basing or operating of land environment, that is, air and ground forces, within the sovereign territory of another nation or state. The contrast between the two is that our President always has the power and authority to move naval forces as he desires to influence, to persuade, to assist, or, if necessary, to intervene for the protection of lives and property of Americans and foreign nationals. Sea forces can avoid intrusion upon the domestic affairs of another country while still providing the security, protection, and strength desired in a specific geographic location.

I have but two factors left to tick off — one of which, is perhaps the most telling in its impact on the future course of world events. I refer to the almost explosive expansion of the Soviet Navy and Merchant Marine.

Many people still think of the USSR as a predominantly land power with her military strength vested mainly in large armies. This was true at the close of World War II, and it was essentially true even ten years ago. Since then, however, the USSR has made a massive investment in both her Navy and her Merchant Marine. The result today that the Soviet Union is a major maritime power. Their force of nearly 400 submarines is the largest in the world. It is no secret that one of the U.S. Navy's highest priority efforts is to develop and maintain the capability to counter this threat. Soviet surface ships have been equipped with modern missile systems which provide them with extended offensive weapon ranges and improved defensive capability. These ships are appearing on the high seas in the vicinity of our naval task forces and are ever-increasing the extent of their operations and their visits to other than Soviet ports.

It is obvious, that for military purposes at least, our assumptions concerning Soviet capabilities must be based upon that which we can see and measure, rather than estimates of their intentions. Furthermore, it can be assumed that Soviet military capabilities reflect their strategy and therefore must give us some indication of their political aims. By any measuring stick, they are today the second largest seapower in the world. In ten years the Soviet Union with dedication of purpose, large outlays of funds, and with priorities equivalent to or even surpassing their space program, has transferred itself from a maritime non-entity to a major seapower.

This new power is dramatically evidenced in their ever-increasing naval presence in the Mediterranean. Soviet naval

forces there just prior to the Middle East conflict had grown to 25 to 30 ships. At that time this was the largest number of Soviet naval ships ever deployed into the Mediterranean. The conflict of the Middle East apparently presaged a significant augmentation of Soviet naval forces to the Med. Shortly after this conflict Soviet naval strength increased to 35 or 40 ships and has remained at this level. This rather formidable force is comprised generally of four to six submarines, approximately 14 surface combatant ships, and 10 to 12 auxiliary and support ships. The number of their intelligence collecting trawlers has also increased. Certainly, there is nothing covert about the Soviet activity at sea, in fact, the Chief of the Soviet Navy has stated, "In the past our ships and naval aviation units have operated primarily near our coast, concerned mainly with operations and tactical coordination with ground troops. Now, we must be prepared for broad offensive operations against sea and ground troops of the imperialists on any point of the world's oceans and adjacent territories."

In the Mediterranean, it is apparent that the USSR is implementing these policies. Other recent speeches have highlighted the importance of warship visits to far ports to develop relationships and strengthen the authority and influence of the Soviet Union.

It is clear that the challenge of our free use of the seas is here for all to see. Our Navy must stay on the move if we are to maintain the quality, valuable depth of experience, and sufficient numbers necessary to counter the Soviet challenge.

Taken in combination, it is readily apparent to me that: The expanding state of the art of our technology, The spotlight on the Navy's accomplishments in Vietnam, The necessary evolving of new strategies, The diminishment of overseas bases, The Soviet's decision to meet us at sea with an enormous merchant fleet and modern navy

all dictate that U.S. seapower must stay on the move! We will stay on the move because we have the dedication and desire, because we have the know-how and capability, and because the interests of our country demand it.

With this overview, one must conclude that the Navy, with your help, must exploit all technologies in order to retain a favorable position on the high seas.

With ever-increasing costs of production and the narrow time frames of the future we can no longer afford the luxury of three or four prototypes from which we choose the best. We will have to insure such integrity of design that we learn at an early stage and can meet the deadline in the end. The team effort between the military and industry — and the taxpayer, must be greater than ever before. We cannot operate on a sustaining basis in the oceans of the world without the very best equipment. We cannot meet the challenge of competitive forces of other countries unless our management procedures and workmanship blend with our technology to such an extent that we can produce hardware at acceptable cost and on timely schedules.

Our achievements are yours. Your achievements are our country's, the power base of democracy on which the security of the free world depends.

I look forward in great anticipation and enthusiasm to our continued work together in the future. Let us ensure that the U.S. maintains seapower supremacy.

NEXT WEEK'S
SPECIAL FEATURE

**TWO WASHINGTON
CORRESPONDENTS
INTERVIEW
ADM. T. H. MOORER**
Chief of Naval Operations

Corona Children Get Rare Treat Playing Firemen

Nine youngsters from the Corona Unified Schools visited the Fire Department at the Naval Weapons Center Corona Laboratories on Monday morning last week.

The emotionally handicapped boys from the first, second, and third grades had a fine time climbing over the fire trucks, and operating the hose nozzles.

Mrs. Carole Herrick, instructor for the group from the Norco area, arranged the trip and accompanied the boys. Mrs. Evelyn Haffer, vehicle driver for the school district, also helped Chief J. L. Rabourn and his fire fighters show the school tots a good time. Field trips of this nature are part of the therapy training.



KID'S DREAM — Eager boys from a special class in the Corona School System get a real live chance to squirt a fireman's hose.

Here Fire Captain K. R. Mackings of the Naval Weapons Center Corona Laboratories sees that each lad gets his turn at the hose.

Livestock Danger Pointed Out To Highway Drivers

Watch for livestock on the highways. This is open range country. There may be more cattle in the area during the fall and winter months. The cattle are brought down from the mountains to the lower levels to graze. You may find them wandering onto the highway and loose animals create a special driving hazard.

Traffic Safety Division suggests one solution to the dangers of livestock on the highway. Slow down at night or when there is limited visibility for any reason in areas where you may find livestock on the road. The reduced speed will give you more time to react to an emergency condition and you might even avoid hitting a cow.

Adm. T. H. Moorer, CNO, "U."

An Address by Adm. Thomas H. Moorer, USN, CNO, at the National Security Industrial Association 24th Annual Dinner, September 28, 1967, in Washington, D.C.

President McFarlane, Chairman Joyce, Distinguished Guests, Ladies and Gentlemen:

This is what I would believe would be labeled on Capitol Hill as my maiden speech in Washington since I assumed the duties of Chief of Naval Operations nearly two months ago. It is an honor and pleasure to make my podium debut before the members of the NSIA, for it is your ability, to look ahead, and to schedule and deliver on time the many thousands of complex items which we in uniform require, that makes you a partner in the most effective military industrial team in the world today.

I am sure that all of you came here expecting the new CNO to talk about the Navy. You will not be disappointed. U.S. Seapower is on the move! And I feel rather strongly about it. Tonight I would like to impart some of my feelings to you — tell you why I think the Navy's value and importance is accelerating — with the thought that each of you might better evaluate the requirements of the Navy together with their effect on you as an industrialist and you as an American citizen.

As background, let me begin my talk with statements in the form of conclusions that express some of the Navy's beliefs and disbeliefs. Then I hope that the remainder of my talk will demonstrate in part how these beliefs serve to support our overall use of seapower. First, the Navy does not believe in a single strategy or a single weapons system. Rather, we believe that the military posture of the United States must be flexible enough to respond quickly — by the discriminate and selective use of force to the degree any particular situation dictates.

The Navy does believe that the coordinated combat power of all the United States Armed Services must be projected over-

seas in any type of conflict. We fully recognize the Navy's role in the support of the other Services in this matter.

The Navy believes that the United States must maintain at the ready the capability for causing unacceptable damage to a potential adversary no matter what preemptive action he may choose to take against us.

The Navy believes that for many reasons, including diversity and security, a good portion of our nuclear delivery system should be seabased.

The Navy believes that, so long as we maintain adequate deterrence, limited wars of all types are more probable than general war and that our readiness for nuclear war must not and need not be incompatible with a readiness for limited war.

The Navy believes that wars are never fought strictly according to a preconceived and documented plan. The capability for a rapid adjustment of forces, plans, and tactics for the unexpected must be retained.

The Navy believes in maintaining mobile streamlined forces that can operate at sea on a self-sufficient sustained basis and that can be tailored for a specific task. Task forces incapable of rapid alteration are not acceptable.

The Navy believes that the roles of all the armed forces are played best if they are coordinated, and that the combined strengths of the Army, Navy, Marine Corps and Air Force forces employed in concert is far greater than the sum of these separate strengths.

Finally, the Navy believes no matter how complex or how awesome you build the weapons of war that man is still the vital element of our defense team. Men make decisions — men fight battles — men win wars.

These then are some of our beliefs. Control and use of the seas for the benefit of the United States and her allies are basic to this philosophy, which incidentally has long endured.

Nevertheless, a few short years ago some people, perhaps blinded by the flash, considered the hydrogen bomb to be the total solution to future world security and wrote the Navy off as an effective force. Some — outside of the Navy — felt that the ultimate evolution of seapower had occurred during World War II and put forth the theory that no significant military action could be expected to take place at sea in the "modern" future.

Even further doubt occurred on the part of some with the advent of the missile age — but only for a moment. For it was at this time that the Navy with your help produced the Polaris weapon system. I need not tell those of you in this audience that besides being a complex and sophisticated industrial marvel, Polaris is, to this moment, the most invulnerable deterrent weapon in the U.S. armory.

Polaris is only part of the story. Concurrently, other weapons systems for other purposes were designed, programmed and produced. For this, we must credit the incredible technology of American industry as well as the Navy — a technology capturing the public imagination. The variety and speed of accomplishment of this team in developing and perfecting myriad weapon systems — has been impressive.

Most of you are familiar with these weapons, now almost too numerous to enumerate.

The A-4 Light Attack Jet that entered service in 1956 and today has perhaps flown more combat missions over North Vietnam than any other single type of aircraft. The F-4, probably the finest fighter aircraft in the world and the front line fighter of all the U.S. armed forces.

These then are some of our beliefs. Control and use of the seas for the benefit of the United States and her allies are basic to this philosophy, which incidentally has long endured.

The A-6 Intruder, the first completely all-weather attack aircraft ever used in combat.

The SH-3A Helicopter, mainstay of both the Navy and the Air Force in the search and rescue of our pilots.

The Navy missile family stretches the imagination: SEAWINDER and SPARROW in the air; for air to ground the 2.75 rocket, the ZUNI, the BULLPUP, the SNAKEYE, and the SHRIKE, just to name a few. It is significant that all of these were developed by the Navy before South Vietnam and almost every one was on hand in useful quantities when the war started. That's a record that you and those of us in the Navy are tremendously proud of.

This is just a suggestion of the modern technology which I referred to as a primary reason for our Navy being on the move. There is not sufficient time here tonight to discuss the effect of the tremendous advances in electronics, propulsion, nuclear physics, and the data systems which coordinate our command and control.

Our operations in Vietnam are obviously another large indication of the Navy's present course and speed. Typical of our efforts there are our air and land striking forces.

When it became necessary to launch air strikes into Vietnam, the first ones were flown from aircraft carriers. And when it became necessary to land additional combat troops in the Spring of 1965, the first ashore were our Marines from the 7th Fleet Amphibious Forces. Why? Simply because they were there; they were ready; they were operating on the free oceans, and they could be used immediately at the sole direction of our Commander in Chief. As the need for air power increased faster than we could build airfields, there was only one way to fill the need. More carriers. So we went from three deployed in the Western Pacific, to four, and then to five. And we're still keeping five deployed with three in continuous combat. During these last two years of combat operations in Southeast Asia, almost half of all the combat missions over North Vietnam have been flown from the decks of Navy aircraft carriers.

Beneath the Navy wings is the gunfire support of our SEA DRAGON surface ships, to be joined later by the battleship NEW JERSEY; the surveillance and inspection activities of our MARKET TIME forces; the peace - keeping operations of our River Patrol Force; and the pressure on the Viet Cong exerted by our Riverine Assault Force.

The Navy Seabees are nearing completion of their part in the largest construction program ever undertaken in the history of the world—one billion dollars in airfields, petroleum facilities, roads, wharves, hangars, barracks—everything that can be built by man.

Ashore in Vietnam, including our Seabees, we have over 30,000 Navy officers and men, hospital corpsmen, chaplains, dentists, and doctors — the total variety of skills needed to sustain and maintain our troops ashore.

Off-shore is the Navy's seafight. The backbreaking, frustrating and often dull task of delivering the trucks, aviation fuels, the food, the ammunition, the heavy equipment, and all the construction materials. It is a 10,000 mile life line which delivers one long ton per month per man to the half million U.S. and allied soldiers in Vietnam. It is still true that about 98 percent of everything going into Vietnam goes by ship. Not only is it the Navy's job to get people and supplies to Vietnam, it also has the responsibility of making sure that no power — or combination of powers — can interrupt this flow of material. Knowledge of this seafight has, I think, brought home to a great many Americans and people of other countries just how vital open sea lanes are to a maritime nation such as the United States — and to our forces and allies overseas.

I've mentioned two reasons why the Navy is on the move — our superb technology and the accomplishments of our forces in the Vietnam conflict

Postdoctoral Research Associates Join Mich. Lab Chemistry Div. Staff

Three National Research Council Postdoctoral Research Associates, Doctor's Michael A. Schroeder, David M. Forkey and Thomas G. Archibald, have

joined the Research Department, Chemistry Division staff (Code 5056) at Naval Weapons Center Michelson Laboratories. Dr. Schroeder, born in Little Falls, New York, received his Bachelor of Science degree from Union College in Schenectady, N.Y. and his Ph.D. from Johns Hopkins University. Dr. Ronald A. Henry is his research advisor. Dr. Schroeder resides at 71 Parsons Road on the Center.

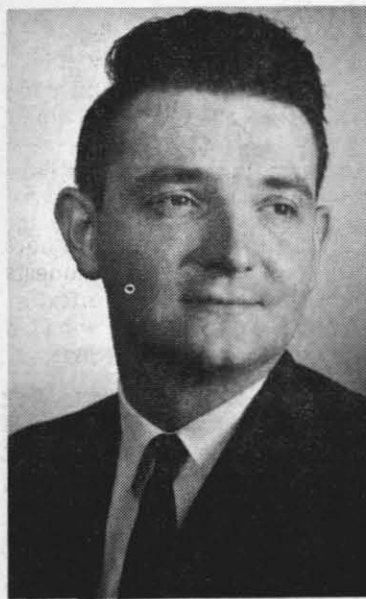
Dr. Forkey was born in Minneapolis, Minnesota and earned his B.A. degree at St. Olaf College in Northfield, Minn., and his Ph.D. from the University of Washington, in Seattle. His research advisor is Dr. Wayne Carpenter. Dr. Forkey and his wife, Delores, live at 406-A Tyler.

Dr. Archibald has a Bachelor of Science degree from Davidson College in Davidson, North Carolina. He received his Ph.D. from Tulane University, New Orleans, Louisiana. He and his wife, Dorothy live at 210-B Mitscher at NWC. Dr. Archibald was born in Penn Yan, New York. His research advisor is Dr. Arnold T. Nielsen.

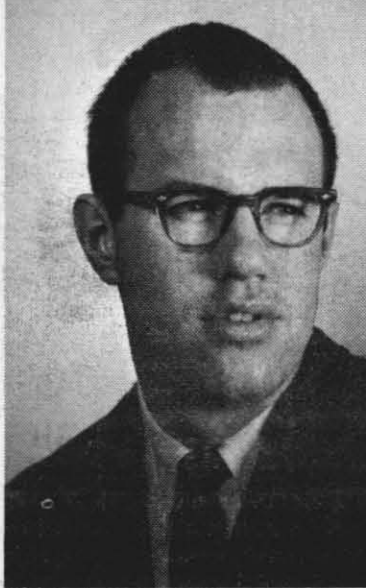
One-year postdoctoral appointments are awarded to the top applicants selected nationally after a review of all applications by a board of the Office of Scientific Personnel, National Research Council, National Academy of Sciences, National Academy of Engineering.

Associateships are open only to citizens of the United States who have completed the requirements for the Ph.D. or Sc.D. degree at the time of entering upon the associateship; the candidate must also have demonstrated superior ability for creative research.

Each research associate works in close association with a research advisor of the permanent research department staff in Michelson Laboratories.



DR. M. A. SCHROEDER



DR. DAVID M. FORKEY



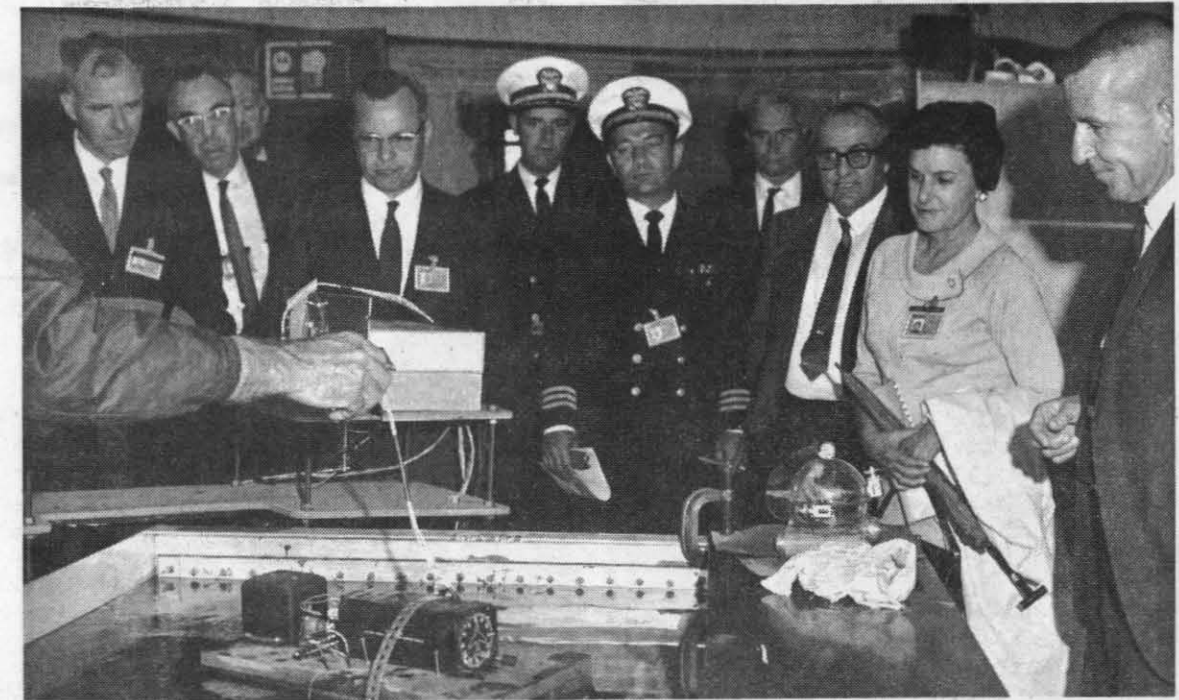
DR. T. G. ARCHIBALD

AFGE MEETING

Lodge 1591, American Federation of Government Employees (AFGE), representing all employees of Naval Undersea Weapons Center, San Diego Division and NELC, also at San Diego, will meet Thursday, December 15 at 4:15 p.m. in building 7 (upstairs behind the dispensary).

Information on bills which now confront Congress and are of immediate importance to the individual will be discussed during this meeting.

AFGE will assist in any problems individuals may present or they may be discussed with one of the members or officials.



FIRST-HAND LOOK — Approximately 25 visitors representing NWC Corona Laboratories, Pasadena and San Diego attended the Technical Department Head's meeting at Naval Weapons Center recently. During their stay, Will Foreman (right), "Deep View" vehicle project engineer, showed the

group various undersea programs currently in progress at China Lake. Viewing a special projects demonstration are: (left) C. J. Beatty; L. Freinkel; A. J. Tickner; D. J. Wilcox; Cdr. G. R. McFadden; Cdr. C. J. Tetrick; W. E. Hicks; D. A. Kunz, and Carney Kraemer, Public Affairs Officer, Pasadena.



COLLEGE FACULTY GETS WHIRLWIND TOUR — The California Polytechnic College was well represented at Naval Weapons Center recently when 18 faculty mem-

bers spent two days receiving briefings and tours of the Center. Capt. R. Williamson II, Executive Officer, NWC, welcomed the faculty during their arrival to the Center.

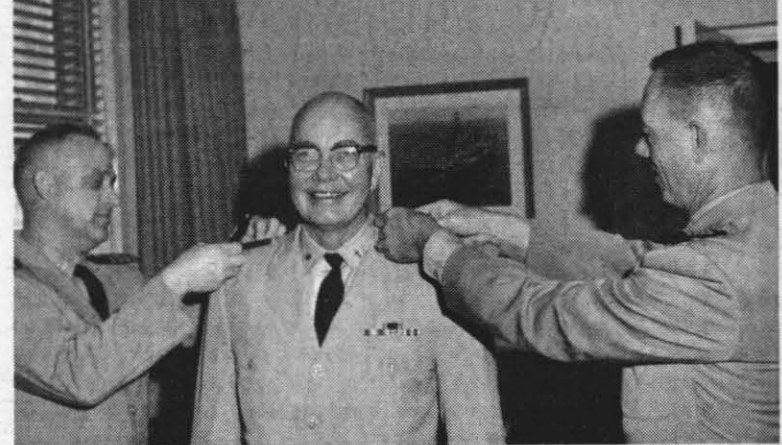
Dr. D. Pilipovich Main Speaker For Monday Nite Meet

Dr. Donald Pilipovich, principal scientist at Rocketdyne, will discuss the chemistry of interhalogen fluorides at the Mojave Section of the American Chemical Society meeting Monday, December 11 at the Hideaway Restaurant in Ridgecrest. Dinner will be served at 7 p.m. and the meeting will start at 8 p.m.

As a principal scientist investigating oxidizer and fluorine chemistry at the Research Division of Rocketdyne, a division of the North American Rockwell Corporation, Dr. Pilipovich is well qualified to present the aspects of the reactions of the halogen fluorides. Acid-base interactions in complex formation and condensation reactions will be discussed. The preparation, properties and reactions of chlorine fluorides, particularly ClF and ClF₃, will be illustrated.

Before coming to Rocketdyne, Dr. Pilipovich worked at the Florida Engineering and Industrial Experiment Station and in the fluorine laboratory at the University of Florida as a Research Associate.

DISNEYLAND, USA—A special highlight of Disneyland's 1967 holidays which Magic Kingdom Club members can enjoy at real savings is the premiere of Disneyland's Fantasy on Parade.



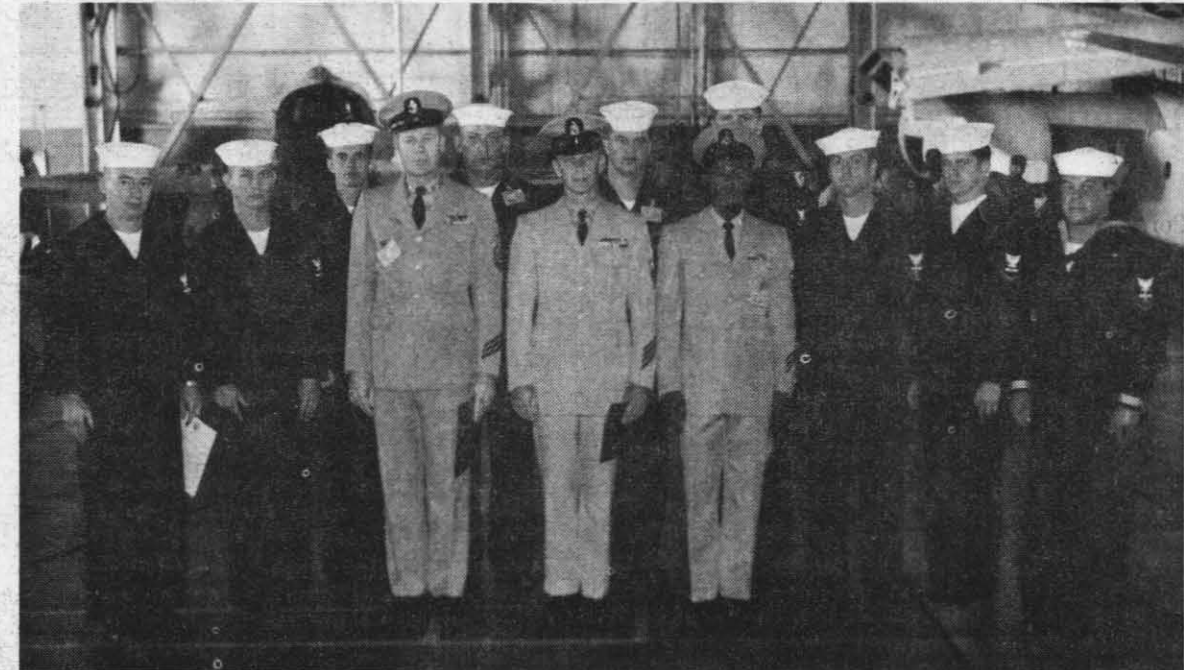
CHAPLAIN PROMOTED — Captain R. Williamson II, (I) Naval Weapons Center Executive Officer, and Captain M. R. Etheridge, NWC Commander, have the privilege of pinning new shoulder boards on Chaplain Jude R. Senieur signifying his recent promotion to Commander.



WACOM PREPARATIONS—Deciding what to wear to the Christmas formal at the Officers' Club Friday, Dec. 15, are (l-r) Mary McMullen, Marty Gingell and Sherri LaPierre. A Buffet Dinner of prime rib and lobster tails will be served from 6 to 9 p.m., and dancing to Big Jay McNeely and his band, with two girl singers, will be from 9 p.m. to 1 a.m. Tickets are available at the Club at \$5 per person.



NAVY UNIT COMMENDATIONS — Captain R. F. Schall, Naval Air Facility Commanding Officer, congratulates AKC William T. Doremus (I) and AE2 D. E. Scott after presenting them the Navy Unit Commendation Award during recent morning quarters. Doremus earned his award while serving aboard the USS Midway with Air Wing Two which was conducting operations off the coast of Viet Nam. Scott received his award for service aboard a WV Squadron equipped with C-121 aircraft.

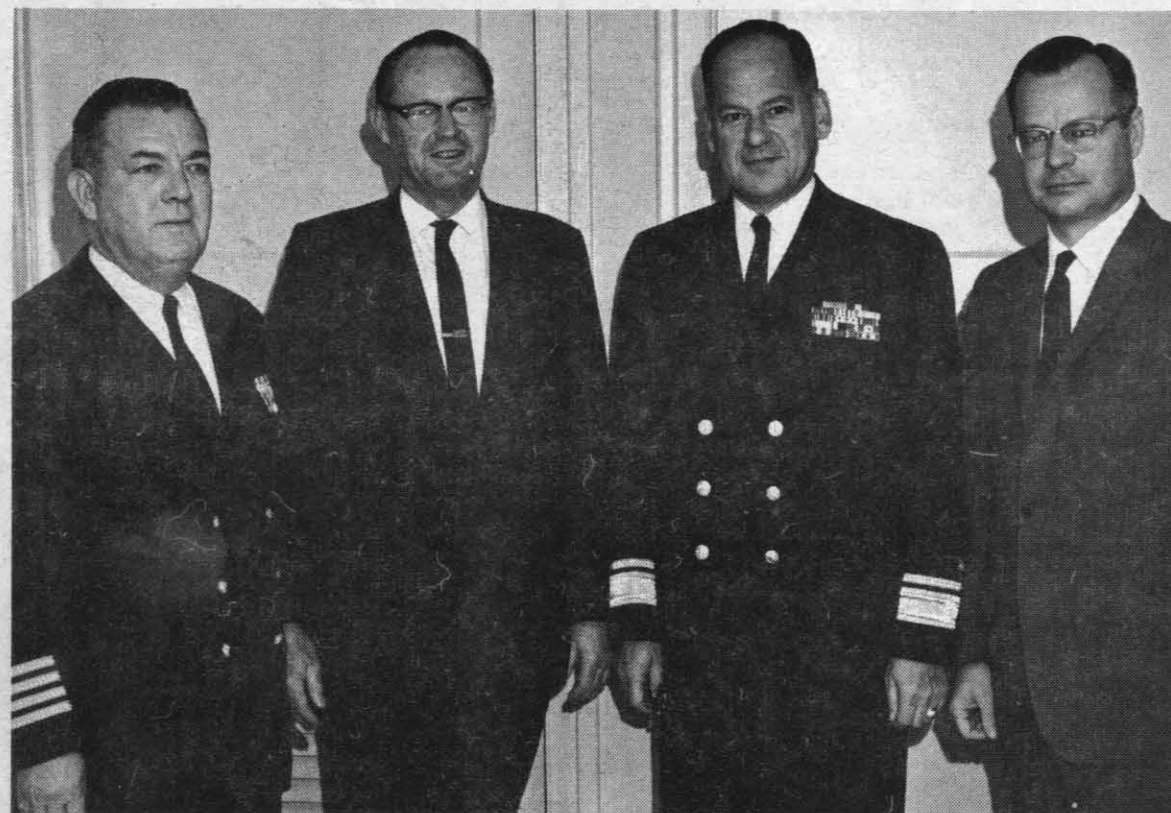


NAF ADVANCEMENTS IN RATE — Naval Air Facility advancements in rate who were congratulated by Captain R. F. Schall, NAF Commanding Officer are: front row, (l-r) ADJC Donald R. Sibley, AOCs Billie E. Whorton, and AOC Earnest Tighe. Back row (l-r) are airmen and their new ratings: ADR2 Chester L. Pope, ABH3 John L. Andrews, ADJ2 James L. Rairigh, AO2 Gary R. Pebbles, AO2 Robert A. Benson, PR1 Donald R. Shipley, AO2 William J. Gross, AMS2 Walter F. Lucas, and ADR2 Tommy J. Jay.



NAVAL UNDERSEA WARFARE CENTER

PASADENA, CALIFORNIA



RADM. ARTHUR R. GRALLA VISITS CENTER — Admiral Gralla, Commander, Ordnance Systems Command was hosted last week at the Center by Capt. G. H. Lowe and Dr. W. B. McLean. Pictured above as they began a tour of Naval Weapons Center,

from left: Capt. Lowe, Dr. McLean, RADM. Gralla and Dr. J. Wilcox. Briefings of various projects being developed here were given by Dr. McLean, W. E. Hicks, D. Cazen, D. A. Kunz, J. H. Jennison, J. H. Green, A. J. Tickner, L. Z. Maudlin and C. G. Beatty.

Center PAO Takes Part in Chaplains' Public Affairs Conference in SD

The first West Coast Seminar for Ecclesiastical Public Affairs saw almost 100 Navy

Chaplains and others, including representatives of the Center PAO meet in San Diego to discuss the ways and means of telling the Navy Chaplain story with the aid of the PAO.

ESO AT LARGE ATTENTION: NUWC SAN DIEGO

Don't forget December 15th — The NUWC Christmas Dance. We would like to see you up here. Place: Veterans of Foreign Wars Hall, 250 East First Street, Azusa. Time: 8:00 p.m. to 1:00 a.m.

The group were welcomed to the base by RADM Marshall E. Dornin, commandant, Eleventh Naval District, and the spiritual navigator for the series of meetings was Captain Roland W. Faulk, CHC, USN, District Chaplain, Eleventh Naval District.

Among the speakers at the conference were: Captain Kenneth W. Moorehead, USN, Director, Plans Division, Office of Information, Washington, D.C.; Commander Wendel R. Begg, CHC, USN, Ecclesiastical Public Affairs, Chaplains Division; LCdr. R. Garcia, USN, PAO, COMTRAPAC; and Lt. LaTourette, USN, Asst. District Public Affairs Officer. Lt. LaTourette also acted as moderator for panel discussions.

Strikers Hold 2-Game Lead

BY RAY HANSON

The Strikers continue to hold a narrow two-game margin in the standings of the NUWC bowling league. Having won 28 and lost 16, the league leaders (Elayne Colson, Cindy and Al Lammens, Jerry Aragaki, and Lyle Emerick) are presently menaced by Sam's Group and the Minimax, both with 26-18 records and tied for second place. The Tanglefoots occupy third place (24-20), with the Charismas a half-game back in fourth (23.5-20.5). In all, 10 games separate the first 11 teams and it looks as though the championship will go right down to the wire.

High scores for the 11th week of play are as follows: team series, Sam's Group, 2993; team game, White Tornadoes, 1054; men's game, Ward Herrick, 675; women's series, Di Anderson, 623; women's game, C. Gebhard, 231. The men's handicap series score is unavailable, owing to a scoring mixup.

The 16-inch guns of U.S. battleships used during World War II and Korea fired projectiles weighing 2700 pounds each.

During the morning session there was a presentation of the film about Chaplains' activities in Viet Nam. "For Thou Art With Me." Don Trapp, Religion Editor of the L.A. Times addressed the Chaplains also.

Christmas Choir Is Now Preparing Holiday Program

The Christmas Choir at the Center is already deep in its practice program making ready to give its usual number of delightful carol recitals throughout the area. The group sounds off every noontime in Building 7. There is still time for interested singers to get into the choir. Merton Welch, leader of the singers, is enthusiastic about them and says he expects some fine vocalizing at their public appearances.

Thirty Rotarians Hosted by Capt. Lowe See Center Facilities

Thirty members of the Pasadena Rotary Club (shown in photo at left in Simulation Lab.) spent an afternoon last week visiting the Center with Capt. G. H. Lowe as their host. Capt. Lowe is also a member of the Pasadena Rotary. The CURV film was viewed by the entire group. The DSSP program (large object salvage) and SEALAB were described to the group by H. R. Talkington. They then were divided into two groups for a tour of the facilities. The areas which they visited were: Simulation Lab, with L. Z. Maudlin; Chemistry Lab with Dr. J. W. Hoyt; Numerical Control with F. A. Anderson.

To Report NUWC News Call VIRGINIA E. LIBBY Extension 438 - Code P1905

PROMOTIONAL OPPORTUNITIES

To apply for positions contact Christine Marchand, Pasadena Personnel Department, Ext. 278. A current SF-58 must be submitted when applying.

Machinist, WB-11, \$3.53 to \$3.83 p/h. Engineering Department, Product Engineering Div., Mfg. & Prod. Engr. Br., Code P4523 — Sets up and operates various types of machine tools and performs benchwork as required for the manufacture, modification, or repair of a variety of mechanical parts and assemblies.

Motion Picture Production Specialist, GS-9, or 11. Engineering Department, Technical Information Division, Motion Picture Production Branch, Motion Picture & Audio-Visual Production Section, P4532 — Edits and performs cameraman duties in producing technical, instructional, and informational film reports. As a group leader is involved in directing, writing, editing, and all aspects of motion picture photography. Duty station: San Diego.

Writer (Motion Pictures), GS-11. Engineering Department, Technical Information Division, Motion Picture Production Branch, Motion Picture & Audio-Visual Production Section, P4532 — Writes scripts for technical, instructional, and informational film reports and audio-visual presentations. Duty station: San Diego.

Personnel Research Specialist or Psychologist (Engineering), GS-13. Conformal/Planar Array Project Office, Code D351, San Diego Division — Directs systems support group and is responsible for studying functions of a large scale surface sonar system. Develops detailed plans for interface coordinating of all design and analysis support functions such as human factors and human engineering, personnel and training, and logistics. Incumbent must be a qualified professional scientist, possess extensive experience and background in the specialized area of man-machine functions of sonar and sub-systems. Must have two to four years in the management and operation of large scale projects.

Operations Research Analyst, GS-12. Systems Analysis Group, D14 Performs systems studies dealing with engineering aspects of future undersea weapons systems. Must have broad knowledge of ASW technology and be familiar with ASW operations. Duty station: San Diego.

Budget Specialist, GS-7 or 9. Central Staff, Plans & Programs Staff, Management Data Processing Group, Code D117 — Responsible for providing financial staff services to the San Diego Division, NUWC, and other management levels at Pasadena. Primary functions include budget formulation, review, coordination and execution, cost analysis and reporting. The equivalent of a Bachelor's Degree in Business, Public Administration or a related field is required. Must understand the principles and methods of budget administration, and be capable of establishing and maintaining effective personal relationships with personnel at several levels of the Center organization.

Center Is Host To Washington Visitors

Visitors to NUWC last week included Cdr. C. A. K. McDonald, Special Assistant (Sub to ASSTSECNAVRESEDEV and Cdr. D. L. Keach, Ocean Engineering and Development Branch, NavMat. They met with Center personnel for a tour of the facilities and a briefing by division heads.

Clark Stenographer, GS-3 or 4, Ocean Technology Department, Code P25 — Acts as assistant to the Department Secretary and as Alternate Division or Branch Secretary as required. Performs secretarial duties including taking and transcribing dictation, preparing memos, correspondence, etc. Position will be filled at the GS-3 or GS-4 level depending on the qualification of the applicant.

Clark Typist or Clerk Stenographer, GS-3 or GS-4, Ocean Technology Department, Ocean Systems Division, Advanced Systems Branch, Code P2511 — Performs secretarial duties for the Advanced Systems Branch including preparation and typing of technical reports, official correspondence, memoranda. Also responsible for preparation and submission of travel orders, and itineraries, stub requisitions, work requests, filing and other clerical functions of the section.



Public Works Men Finish Mammoth Erector Set Job

Cables pulled taut when Public Works Department riggers signalled a crane operator to lift away not long ago in the PW compound. The load was a 31-ton simulated bay structure to be tested by NWC.

Designed by the engineering division of Public Works, the 62,000 pound web of steel reinforcing bar took 800 man hours to lay out and assemble in the PW metal shop. All of the one inch and three-eighths inch rebar used in its construction is hand-tied, said Melvin Blagg. No welds were used in putting together the structure, added his assistant Jim Elliott.

It took about a dozen men in the metal shop a little over six weeks to assemble the 44-foot long test structure that stands 15 feet high and 20 feet wide.

After it was lifted onto the trailer bed of a low-boy, the massive steel network was secured and trucked to a test site.

CL Roofs Slated For Repair Job By PW Contract

Deteriorating roofs on 306 China Lake housing units are the targets of a \$186,000 repair contract now being developed by the Public Works Department, announced Lt. John Fabarik, Assistant Public Works Officer, this week.

He said a design contract is now underway, with a construction contract expected to get work started in eight to ten months.

"Our funds have been so limited that we have been able to repair only the worst roofs — cases so bad that the roofs actually pose a safety hazard," he explained, and added that the high overhead cost of using Public Works Shop forces makes the longer-term contract approach necessary.

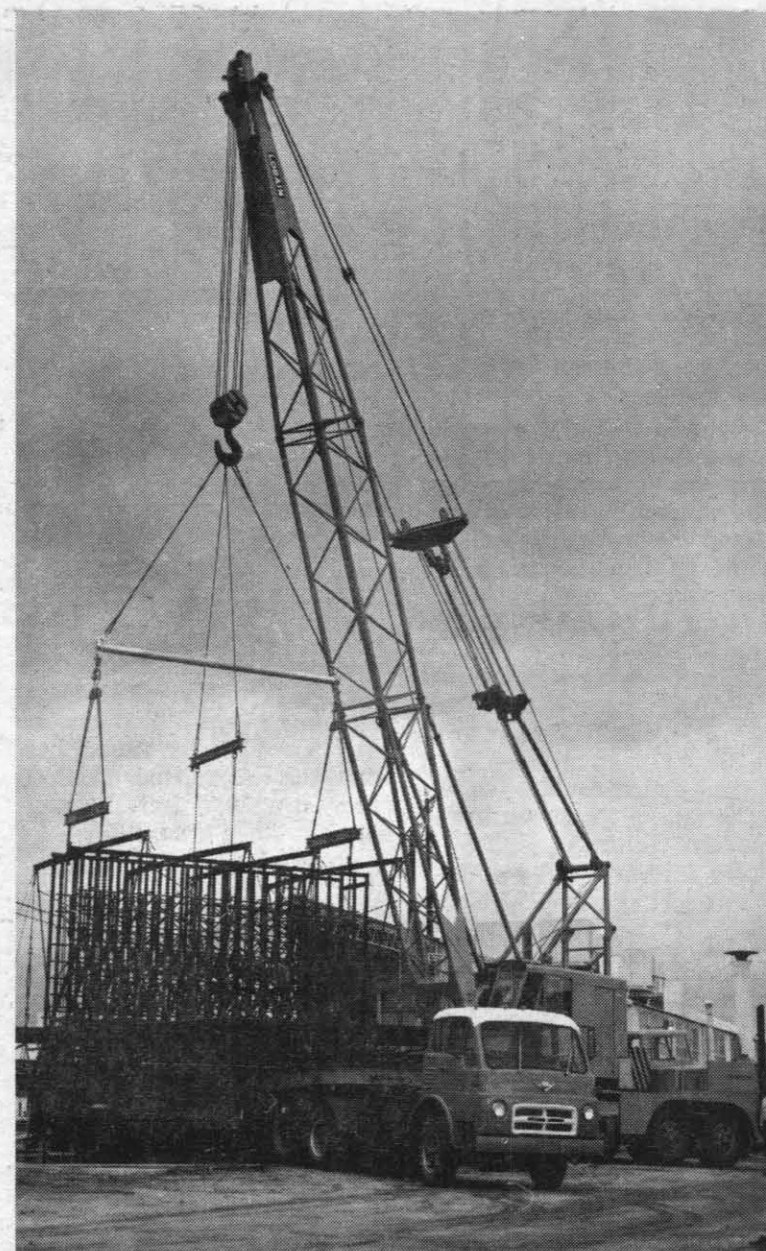
Now slated for work under the coming contract are 100 old Wherry units, 100 old Normac units and 106 old apartments.

Also in progress at Public Works are two contracts for 600 gas wall heaters and a \$75,000 contract for additional sewers for the Wherry housing area.

'RAP' Combines Unique Features

(Continued from Page 1) is also responsible for developing gun mount modifications, and ballistic tables for the fire control system.

The RAP potential of added power in "conventional" warfare for the Fleet's present argus is not only a promise for still greater effectiveness in the Viet Nam conflict but also is one step in a long-range Navy effort of boosting the conventionally equipped Fleet further into the demanding world of the missile age.



LIKE A GIANT ERECTOR SET — Airy look of steel network belies its 62,000 pound weight. Simulated bay structure is being loaded at Public Works compound where it was assembled after 800 man hours of hard work.



HAND-TIED STEEL — The maze of hand-tied steel reinforcing bar dwarfs Public Works riggers as they prepare 44-foot long structure for delivery to Systems Development Department at Naval Weapons Center.

Reminds Members of Assessments Due

Members of the Government Employees Benefit Association and the China Lake Mutual Aid Society are reminded that Assessments Number 138-66 and 139-67 are now due.

Assessments have been levied due to the death of Jess C. Nimmo, retired employee of Public Works Metal Shop, who succumbed November 27 at Lo-

ma Linda Hospital following a lengthy illness.

Also, due to the death of Virgil A. Bennett, an employee of the Material Division of Supply Department, who died of a heart attack at his China Lake residence, December 2, 1967.

Payments of \$2.40 may be mailed to Joseph M. Becker, Secretary-Treasurer, 77-B Renshaw, China Lake, Calif.

Adm. J. J. Hyland Assumes Duty As Commander-in-Chief, Pacific Fleet

It is with great pride and humility that I take over from Admiral Johnson today (Dec. 2) as Commander-in-Chief of the United States Pacific Fleet — the largest, most powerful Naval command in the world. Admiral Moorer once called this job the "ultimate salt water assignment." I couldn't agree more.

I look forward to my new duties because I know I can count on you — the officers and men of the fleet. I know from first-hand experience that you are among the most courageous and dedicated men in the world. You are proving it daily in Southeast Asia. With your help and support there is nothing that, together, we cannot accomplish.

I don't have to remind you of the importance of our commitment in Southeast Asia. We in uniform seem to understand that. In this far off arena, the freedom of the American people and free world is at stake. The resolve and ability I have learned to expect from you confirms my belief that, in a time of crisis, the best men a country has to offer step forward. Our country's trust rests firmly and safely in your hands — the best trained, most dedicated, and ablest seagoing men in the world today.

ADMIRAL JOHN J. HYLAND
Commander-in-Chief, Pacific Fleet

Code 30 Party Fellowships Open To Center People

The Systems Development Department Christmas Party plans are completed, and the date is Friday, December 15, at the Elks Club in Ridgecrest.

Happy hour and free punch bowl and hors d'oeuvres will begin at 8 p.m. Dancing to a seven piece orchestra starts at 9 to 1 a.m. A special floor show is scheduled at 10. This includes two professional acts from Austin of Hollywood, "The Robbins," a singing group; and a comedy act, "The Bakers."

(Continued from Page 1)

Detailed information may be obtained from the Dean of the Graduate School at Princeton and CIT, and from the Dean of the School of Engineering at Columbia. Application deadlines are January 15 at Princeton, February 1 at Columbia, and February 15 at CIT. Applications are to be submitted directly to the school the applicant wishes to attend.

Runway Opened to NAF Air Traffic

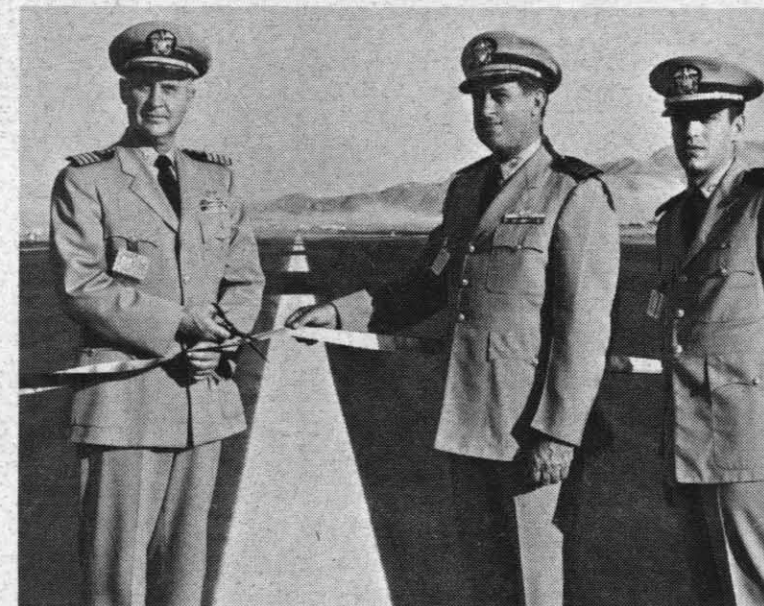
Over a mile of Naval Air Facility runway was officially reopened to air traffic recently. Complete resurfacing of the strip is part of a contract that includes major overhaul of many roads at NWC according to Public Works Officer Captain K. C. Abplanalp.

Acting in his capacity as Resident Officer in Charge of Construction, Captain Abplanalp said new overlays are to be put on roads in Randsburg Wash-Mojave "B" areas as well as in the housing area, SNORT track and ranges at China Lake. Magnitude of the contract, he told, is nearly a half million dollars.

While some roads will require complete overlays of paving material, others will be slurry treated; and still others will need only sealing.

The contractor, Asphalt Construction Company of Lancaster, was successful low bidder for the job. Award was made by the Naval Facilities Engineering Command, Southwest Division, in San Diego. The contractor is due to complete the entire project next February.

To handle quantities of asphalt and other surfacing materials needed for the project, the contractor has erected a temporary batching and mixing plant near the old ghost town of Garlock. The mile-long runway completed last week used nearly 130,000 cubic yards of asphalt mix, plus many gallons of paint for striping that is also coated with luminous beading.



MORE THAN A MILE OF newly surfaced runway was turned over to NAF this week when Captain R. J. Schall (on the left), Commanding Officer of NAF, cut a ribbon with the assistance of Public Works Officer Captain K. C. Abplanalp, ROICC and LT(jg) R. D. Linder, AROICC.

CHAPLAIN'S MESSAGE

CHRISTMAS in Your Heart

CHAPLAIN JUDE R. SENIEUR



About 20 years ago a group of people were just excited over the commercial obscuring of the meaning of Christmas. They took as their motto: "Put Christ back into Christmas."

A nationwide campaign of posters, billboards, radio and television announcements, efforts by organizations and schools, brought about a renewed appraisal of an appreciation for the real meaning of Christmas as the birthday of Christ. Scotty dogs and unrelated snow scenes became less popular on Christmas greeting cards as the star of Bethlehem got back its rightful place.

To what degree the campaign was successful is difficult to determine. Certainly there are more crib sets sold each year and more Christmas cards depict the scene at Bethlehem. The Christ child is probably getting near equal time with the red nosed reindeer on radio and television, and most of the snow scenes include a winding path that leads to the community church.

Unfortunately it is possible to "put Christ back into Christmas" and still fail to get Christmas into your heart. The real joy of Christmas is found in the spirit of generosity that forgives and forgets, that dissolves old grudges and establishes new friendships, that softens hard feelings and pardons old offenses.

It is the generosity that imitates God in giving not merely things, but in giving oneself. Christmas is the Season of Love. It is only in giving our heart to others that we will know the true spirit of Christmas. And it is only in this true spirit of Christmas that we will find the peace, the joy, and the good news announced by the angels on the First Christmas Eve:

"Glory to God in the highest Heaven — And peace to men who enjoy His favor!"



ANOTHER SIX — SN David D. Thomas reenlists for another six years in the U.S. Navy and receives congratulations from Commander J. J. Braun, VX-5 Executive Officer. Thomas hails from Wichita, Kansas, and served two years in the Army before entering the Navy in February, 1964. He is presently assigned to the NAF Warehouse.

PROMOTIONAL OPPORTUNITIES

Present Center 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.

Mathematician GS-7, 9 or 11 (One Vacancy), Code 404 — The incumbent will provide digital computer programming and analytical support for the Analysis Branch, Guidance and Control Systems Division. Responsibilities will include providing both FORTRAN and assembly language programming assistance for Branch Analysts in the areas of strapped-down inertial guidance and optimal adaptive control system analyses. Digital simulation for a digital computer modeling program will be required. It is expected that the incumbent will be capable of digital computer coding and of exercising the digital program under his cognizance, evaluating the program results and making suitable program modifications as necessary.

Clerk-Dictating Machine Transcriber, GS-4, Code 4036 — The incumbent will serve as branch secretary and will be responsible for the typing of official correspondence and memoranda; preparation of travel orders and stubs; acting as receptionist at the Branch Head; and various office duties.

Clerk-Dictating Machine Transcriber, GS-3 or 4, Code 4035 — Incumbent will perform secretarial duties for the Branch. Duties will include transcribing and typing correspondence and memoranda, travel orders, clearance requests, etc.; screening telephone and office calls; receiving and distributing incoming mail; and maintaining Branch files.

Administrative Officer, GS-9 or 11, Code 4035 — This vacancy is located in the New Conventional Weapons Branch. The incumbent assists in the formulation of program plans involving scheduling manpower requirements, funding and development side such as Pert Charts. Incumbent must have a Bachelors Degree or its equivalent plus three years progressively responsible experience which demonstrates ability to perform administrative assignments.

File applications for above with June Chipp, Bldg. 34, Rm. 26, Phone 72676.

Clerk-Typist, GS-3, (One Vacancy), Code 25984 — Incumbent will perform clerical duties such as composing correspondence, setting up and maintaining files and records; will perform a variety of typing tasks ranging from rough draft to finished work. Will serve as receptionist, answering questions on the phone and giving out needed information.

Freight Classification Assistant (Typing), GS-4, Code 25984 — Position is located in the Shipping Section of the Traffic Branch, Material Division. Incumbent prepares and reviews Government Bills of Lading, assigns proper freight classifications; prepares reports and reviews correspondence; schedules and routes shipments, etc. Qualifications: Two years of clerical or administrative work, at least one of which must have been in traffic or transportation work and which required the application of practical knowledge in the use, operation, cost or regulation of transportation.

File applications for the above with Vicki Mead, Bldg. 34, Rm. 28, Phone 72218.
Inspector (Office Machine Repair), WX-48013-49, Code 2598 — Responsible for ensuring proper maintenance and repair of all office machines and other office labor saving devices. Incumbent will conduct liaison with station departments regarding maintenance requirements; trouble class and occasionally advising on survey of machines, also with various contractors regarding maintenance of machines and ensuring that claims as to work performed are accurate. Qualifications: Applicants must have had three years of general experience plus one year of specialized experience.

File applications for the above with Vicki Mead, Bldg. 34, Rm. 28, Phone 72218.
Safety Officer, GS-018-09, 11 or 12 (two vacancies), Code 20 — Duties consist of: Working with technical departments in establishing a safety program and providing technical assistance to departments in the area of safety. Qualifications: Applicants must have a bachelors degree or its equivalent in science or engineering from an accredited college or university.

Safety Assistant, GS-018-09 or 07, (One Vacancy), Code 20 — Experience requirements are three years for the GS-5 and four years for the GS-7 level. Experience must have included the ability to deal effectively with people in the observance of safety rules.

Electrical or Electronic Engineer, (or Physicist with electronics, particularly radar), GS-12 or 13, (one vacancy), Code 1201A — Position is that of the primary NWC specialist in electronic warfare intelligence analyses. Gathers data and performs analyses on the technical characteristics and operational employment of foreign electronic systems, particularly radar, for NWC projects such as anti-radiation missile (ARM) guidance, target identification and acquisition systems (TIAS), radar homing and warning (RHAW) equipments and other passive weapon control systems. Establishes a data maintains information exchange liaison with the US intelligence community and other Navy and DOD organizations engaged in electronic warfare intelligence analyses. Position is located in the Detail Squadron of a Group of the Weapons Planning Group, Code 12.

File applications for the above with Carole Cole, Bldg. 34, Rm. 28, Phone 71648.
Machinist, GS-018-11, Code 4553 — Installs, overhauls, maintains and repairs machines such as shop equipment; boiler plant processing and lab equipment; ordnance plant processing and lab equipment; and extrusion presses. Locates sources

'DESERT PHILOSOPHER'

Dogs for Pets

By "POP" LOFINCK



There is no better Christmas gift for a youngster, than a pet dog — if he doesn't have one.

The close relationship of man and dogs is about as old as civilization. The constant unwavering loyalty, devotion, friendship and love a pet dog has for a child is good! And the feeling of responsibility that the child has for looking after and taking care of the pet is character building.

A very small percentage of delinquency exists with children who have a real interest in a nature hobby, especially pets. Such a hobby seems to have a normalizing influence on youth. This close relationship between man and dogs goes back to 4000 B.C. when dogs were first domesticated.

Children and dogs feel a close relationship to each other. Every child should have a dog for a playmate and with so much crime everywhere every home should have a watch-dog guardian for insurance.

Dogs wandering around without an identification tag are picked up by Security Police and taken to the local pound. They may have been abandoned because they were stupid or spoiled, and probably not vaccinated. That may seem hard, but if they were not picked up hundreds of dogs would be wandering around trying to scrounge enough to eat. And that's tough.

Sometimes people packing up to leave for some far away place will put an ad in the China Lake Swap Sheet to find a new home for their pet. You might get a good dog that way — but that's doubtful too.

After you've decided on what type or class of a dog you want it's safer to go to a reputable breeder and buy a dog — then you know what you are getting. Dogs are bred as much for intelligence as for appearance.

There are about as many types of dogs as there are different types of people. It doesn't seem possible that civilization could have evolved without dogs. They are that closely associated with man. More closely associated with the progress of civilization than horses or camels. Dogs have been crossbred and recrossed for special purposes until now there are over 200 breeds. They are classified into six general groups: Gun dogs—pointers, setters, retrievers, and Spaniels; Hound group—that hunt with their nose; working group—herding, guarding, police and sled dogs; Terrier Group—which seem to have been evolved to be pets and family dogs; Toy Group—small house dogs, and non-sporting group.

Before you go to buy a dog and decide on the breed you want — read a book from the China Lake Library — "The Standard Book of Household Pets" by Jack Baird — it covers everything.

A pup is best for a small child — then the pup will feel that the youngster is his pal. But if you get a pup too young — then you have a house-breaking chore to contend with. So? The dog and the child can be pals for 10 years. Growing up with a pet seems to make the child more emotionally balanced.

Every child should have a pet. And with crime so rampant — every home should have a watch-dog guardian, for insurance. Maybe in another 10,000 years dogs will talk. Some try hard, but their mouth isn't the right shape.

of trouble or cause of breakdowns. Disassembles machines and makes repairs, over-hauls hydraulic pumps, water, vacuum pumps, air compressors and air and hydraulic tools.

File applications for the above with Jan Bixler, Bldg. 34, Rm. 24, Phone 72723.
Applied Research Scientist or Engineer, GS-7, 9 or 11, Code 4511 — Performs Analytical (Theoretical) and Experimental work on rocket exhaust effects. Present programs are concerned with microwave attenuation and modulation effects caused by rocket exhaust plumes. Background in physics, physical chemistry, electronic engineering and gas dynamics is helpful but not essential. The scope of the program involves work related to missile systems as well as more basic research. Technical contacts will include numerous U.S. and international workers in this and related fields. Deadline for Filing Applications: December 15, 1967.

File applications for above with Jan Bixler, Bldg. 34, Rm. 24, Phone 72723.
Mechanical Engineer (Ordnance), GS-830-11, PD No. 455038, Code 5521 — The incumbent is responsible for production engineering and redesign of components employed in servo systems and designing and developing test procedures to evaluate the effect on the system; he evaluates all phases of the task and prepares a final technical report. Qualifications: The individual must have a Bachelor of Science Degree in Mechanical Engineering or have an equivalent background acquired through a combination of actual on the job engineering and academic time. He must also put forth the effort to be informed of present state-of-the-art and advances in engineering and physical sciences, and generally informed in other areas of servomechanics.

File applications for above with Sue Prasolowicz, Bldg. 34, Rm. 26, Phone 71577.

Supply Dept. Sets Hawaii Christmas

"Hawaiian Christmas" is the theme of this year's annual Supply Department Recreation Club Christmas party, set for the Community Center tomorrow evening.

The party will begin with a social hour from 5:30 to 6:30 p.m., and a buffet dinner will follow at 8:00. A special hour-long Hawaiian show will be on stage at 9:00, and the Tempos will furnish music for dancing to 1 a.m. Tickets to the event are \$4 each.

THE LOCKER ROOM

Civilian Candidates

By ED RANCK



Last week, China Lake's first Athlete of the Month award was presented to Airman Larry Brown of the Naval Air Facility. Most people will probably agree that the selection of Brown was a good one, and if future choices for the honor can match Brown in two categories — ability plus sportsmanship — then China Lake should be well represented in the future.

The Athlete of the Month program is restricted to military personnel at China Lake. The athletic program here is essentially a military athletic program, but because of the high civilian to military ratio, there are times when the civilian participants far outnumber the military. Therefore, there are quite a few non-military people here who would also be deserving of such an honor.

This is not to insinuate, perish the thought, that civilians should be included in a program of this nature. Suggestions such as that we leave to more courageous souls. But if such a thing were to become a reality, there are certain people who would deserve consideration. They aren't all athletes in the true sense of the word, but have made contributions to the local sports programs that deserve some recognition. Here is a partial list.

MAURY COLEMAN

Maury Coleman is one of the best bowlers to compete at the local alleys. He is also one of China Lake's most avid softball fans, and can usually be found at Reardon Field on any evening during the softball season. Maury would be a choice, however, because of his participation as an instructor in the local youth bowling program. As an instructor in the China Lake AJBC program, along with Fred Dalpiaz and Aline Schad, Maury has devoted the majority of his spare time to teaching the game to the youngsters of the local area. The job of course, pays nothing and the hours can be long, but Maury likes kids and to him that's all the incentive that is necessary.

For overall athletic ability, Jim Ayers would probably be the top candidate among the non-military personnel competing in the local athletic program. Although he isn't a big man, Jim is the kind of athlete whose natural ability is such that he is competent in any sport that he tries. He is one of the best softball players at China Lake, and was one of the key men on the Crab football team this year. Jim participates in the local sports program the year around and is currently playing basketball with the defending champion Aero Science basketball team.

Carol Chatterton would have to be considered because of her outstanding work with the Indian Wells Valley Swim Team. The IWV team is probably the best group of young swimmers in the Mojave Desert area, and one of the best organizations of its kind in southern California. The success of the club is a direct result of the hard work that Carol and her team of assistant coaches has put into the swimming program during the last 10 years. The team, which has a membership of over 150 kids between the ages of 6 and 18, trains and competes 10 months each year. It's not an easy job being head coach of a swim team this large and also raising a family, but Carol has managed to get the job done since the summer of 1958.

TOP SOFTBALL PITCHER

The achievements of Bobby Kochman have been well documented on the sports pages during the past 20 years or so. He is the best softball pitcher ever to compete at China Lake. He is a top-notch bowler and also one of China Lake's best golfers. With Bob however, it's not all natural ability. He is above all, a competitor, and it is his competitive spirit that has always made him one of the standout athletes in the area. Last summer, Bob made a comeback after undergoing a spinal operation that should have ended his pitching career. Within a month he pitched and won a 14-inning ball game and that's something a lot of pitchers that are 20 years junior to him couldn't have done.

These are just a few of the many outstanding members of the China Lake community who have made a worthwhile contribution to sports. There are many more, both military and civilian, who will probably never receive any recognition at all, much less an award. But like those mentioned here they would deserve it, because without them the whole sports program would become a drab affair.

WACOM Plans Party on Dec. 15

WACOM's traditional Christmas dinner dance will be held December 15 at the Commissioned Officers' Mess.

"Echoes of Paris" will be the theme for the formal affair. All COM members and their ladies are cordially invited. Tickets available from Dec. 1.

Blue Cross Ins. Agent To Visit Center Wed.

Norman R. Smith, Blue Cross - Blue Shield (Service Benefit Plan) representative from Bakersfield, will be aboard the Center on Wednesday, December 13, at the Community Center from 9 a.m. to 4 p.m. according to T. J. Haycock, Head, Employee-Management Relations.

Mike Dowd Rolls 633 Games, Sets High 1967 Series

Mike Dowd rolled a 633 series this week in the Junior League to establish the high junior series for 1967. Mike put together single games of 233, 183 and 217 enroute to the final series. The 233 game also established the high single for junior bowlers this year. Fourteen year old Linda Cutsinger, bowling in the Junior Girls League, rolled a 221 single game, high for the junior girls this year. Sally Seaholm led the Bantam Girls once again, rolling a 161-461. Gail Shreve was second in the Bantams with 155-409.

In the Desert League, Ben Whiteside topped all bowlers this week with a 644. Ben had two good games, 246 and 236, sandwiched around a 162. Other 200 games in the Desert League included Joe Jones, 232; Alex Ribaultan 229; Joe Winter 226; Ray Smith 215; Ed Donahue 213 and Jim Ball 213 and 204. Ball had high single game in the Midway League, a 267, high for the week at China Lake Bowl. Jim also had high series among Midway bowlers, hitting a fine 634.

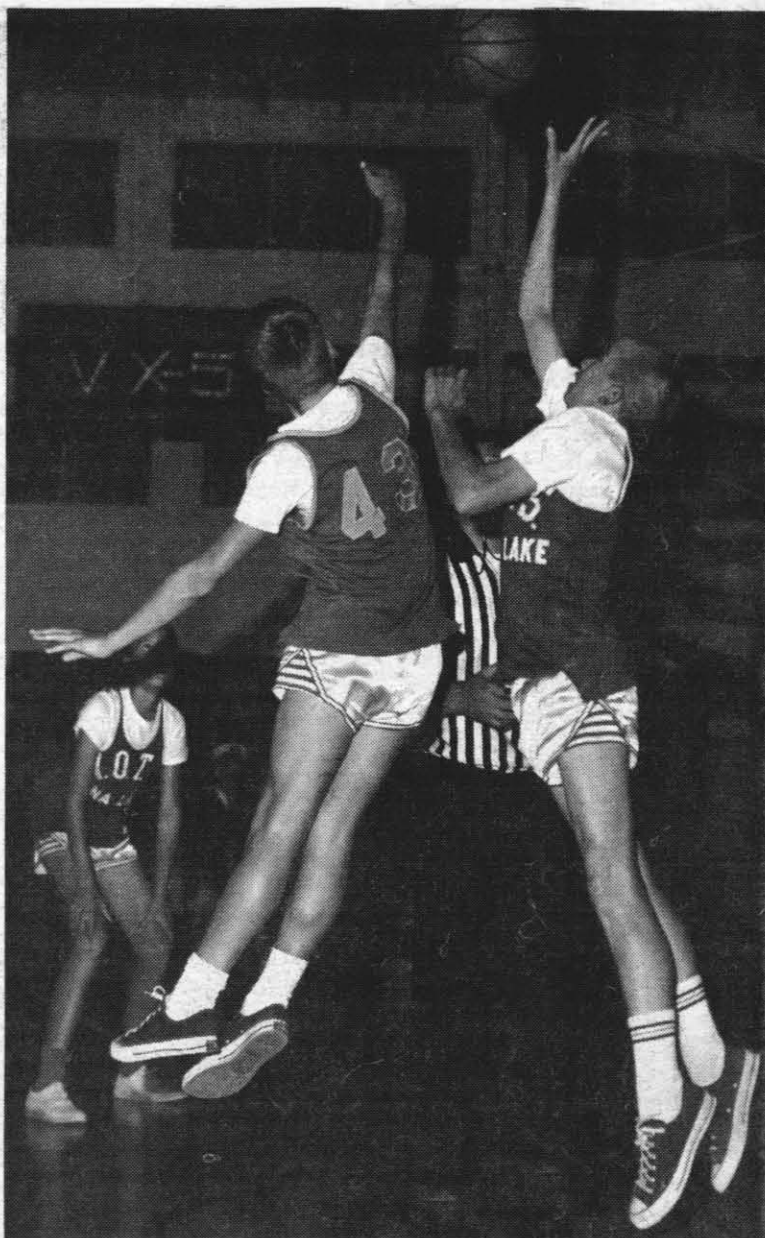
In the Premier League, Vivianne Woodard Cosmetics opened up a five game lead while only three games separated the remaining teams. Jim Peck led the Premier bowlers with 210-195-220 for a 625 series, while Ray Freascher was second with 217-204-187 for 608. Ed Donahue had high single game with 225, Ben Whiteside rolled 218 and George Bowles and Rob Fuller each had 217.

Maggie Branson led the Women's Scratch League with 527 and Val Strommer was second with 193-507. In the Thursday afternoon trio, Joy Godett was high with 520 and Nell Davis had high single game with 201. In the Friday Mixed Foursome Floyd Maxwell led the way for the men with 205-563. Bob Owens had high single with 212 and Jack Leininger rolled a 203. Maggie Branson topped all bowlers, rolling a 195-222-152 for a 569.

Top League Teams Battle for Honors In Hoop Action

The defending champion Aero Science Falcons defeated the VX-5 Vampires, 81-21 as the 1967-68 China Lake Basketball League got underway. The Falcons opened up a 36-11 half-time lead then coasted to victory with guard Leo Francis leading the way. Francis scored 12 points in the first half and ended the evening with 14. Ron Melia and Bob Campbell contributed 11 each for Aero Science, while Rick Schutte was high for VX-5 with 6 points.

The Special Services Spoilers survived a hot fourth period by NWC's Bob Gingell, and hung on to defeat the Tigers 48-42. Gingell hit 10 points in the final period but the Tigers were unable to catch up. Gingell shared scoring honors with Special Services' Gary Johnson, both had 16 points for the evening, while Dean Ray hit 12 for the Spoilers.



THE JUMP THAT COUNTS — Kurt Weisbrich, number 43 and Mike Peacock make the jump that counts in Basketball competition. Youth Activities at China Lake are sponsoring two Basketball Leagues for boys ages 10 through 14. Registration is now underway with hoop action to begin soon on the Center courts. All boys signing up will play, regardless of ability, and will be placed on a team.

Norton Takes Title From Nellis Team

Norton AFB edged Nellis AFB for the 1967 MDISL championship according to standings released this week. Norton finished with 110 points.

Navy Weather Service Observes 50th Year

Navy Weather Service will observe its 50th anniversary December 17. Called Naval Aerological Service when organized in 1917, service was instituted by order of Assistant Secretary of Navy Franklin D. Roosevelt and directed by Dr. Alexander McAdie, Director of Harvard University's Blue Hill Observatory, who was enlisted as reserve lieutenant commander specifically to organize unit.

Nellis had 106 and third place MCB 29 Palms had 100. The seventh place Barstow Marines finished strongly, as they defeated 29 Palms in the Championship game of the 1967 Flag Football tournament. China Lake's representative, the VX-5 Vampires, were defeated in the opening round of the tournament by 29 Palms, 20-7.

MDISL Standings	Points
Norton	110
Nellis	106
29 Palms	100
George	91
Edwards	81
China Lake	80
Barstow	70
Fort Irwin	43



NEW GOLF CLUB OFFICERS — Recently elected officers of the China Lake Women's Golf Club are: Mmes. Monroe B. Sarge (left) treasurer; Donald L. Johnson, president, and Lee Keely, secretary. Not present for photo is Mrs. Ray Harrison, vice president for the club.

The Rocketeer

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China Lake, California

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NWC Commander

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PH2 Philip H. Beard, PH3 Jerry Willey,
AN Kenneth G. Stephens.



Christian Science (Chapel Annex) — Morning Service—10 a.m. Sunday School—10 a.m.

Protestant—(All Faith Chapel) — Morning Worship—8:15 and 11 a.m. Sunday School—9:30 a.m., Chapel Annexes 1, 2, 3, 4 (Dorms 5, 6, 7, 8) located opposite Center Restaurant.

Roman Catholic (All Faith Chapel) — Holy Mass—7, 9:30 a.m., and 12:30 p.m. Sunday.

Daily Mass—11:30 a.m. in Blessed Sacrament Chapel. Saturday, 8:30 a.m. Confessions—7 to 8:00 p.m. Saturday.

NWC Jewish Services (East Wing All Faith Chapel)—8 p.m. every first and third Friday.

Sabbath School—10 a.m. to noon, every first and third Saturday.

Unitarian Fellowship—(Chapel Annex, 95 King Ave.)—Sunday, 7:30 p.m.

DEADLINES:
News Stories.....Tuesday, 4:30 p.m.
Photographs.....Tuesday, 11:30 a.m.

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Phones.....71354, 71655, 72082