

1973 WACOM Wildflower Show Planned April 28-29

By Budd Gott

The annual WACOM Wildflower Show will be staged in the Community Center from 1 to 10 p.m. on Saturday, April 28, and from 10 a.m. to 8 p.m. on Sunday, April 29. The event, which is celebrating its 26th year, is chaired by Pat LaBerge. Mrs. LaBerge was first associated with the wildflower show during her husband's first tour of duty at China Lake from 1950 to 1957. Dr. Walter LaBerge is currently NWC's Deputy Technical Director.

Mrs. LaBerge reports that Lorraine McClung has been appointed business manager and that Barbara Alderton, assisted by Gaye Wimberly and Paulette Moore, will be in charge of staging the show.

A departure in staging will be inaugurated this year. Five large mural-like paintings of local views are being prepared by members of the Desert Art League. At work on the paintings are Beth Allen, Vinnie Bodenburg, Maxine Booty, Ruth Mayer, Ida Davis and Mary Polk. The murals will form natural settings for the wildflower displays.

Other committee chairmen are Clare Hunter, who will handle properties; Natalie Harrison, chairman of the picking crews; Polly Nicol, assisted by Dorothy Husten, in charge of receiving; Kristen Berry and Judy Lind, identification (of the flowers); and Tina Knemeyer and Ditty Riggs, placement.

The picking crew, according to Mrs. LaBerge, is one of the most important aspects of the show. "Our success will depend on what flowers they gather," she said. "We encourage volunteers. Men and women are needed to help with the picking and we also encourage reports from IWW residents as to the location of the best stands of wildflowers," she added.

Interested persons should call Mrs. Harrison at 446-3341 if they want to volunteer their services in the field.

"WACOM has already received the special permits required to

collect wildflowers, as they are protected by law," Mrs. LaBerge pointed out. "It's just a matter of beating the sheep to them," she added.

Background music will be supplied during the two-day show by more than 20 musicians, under the direction of Mary Lou Jones.

Programs will be prepared by Donnie Goettig, assisted by Sherrie LaPierre, and Merle Rivette will be in charge of posters. Mickey Swift will handle registration chores. Budd Gott heads the publicity committee.

Also being planned is a tea room where visitors may pause for a variety of refreshments. This will be managed by Sue Byrd.

Conservation Display
For the first time, a nature conservation display will be featured. Included in this special exhibit, which is to be held in the Yucca Room, are displays by Mrs. Ralph Morgan, Mrs. A. S. Gould and Jack Zaninovich.

In addition, several displays of cacti and grasses, and the American Indian's uses of wild plants will be featured in Panamint Hall. These displays are the work of Judy Lind, Joe Keefe and Mary Ann Henry, respectively.

WACOM Easter Egg Hunt Slated Sunday at Club

An Easter Sunday brunch, highlighted by an Easter egg hunt for children that will take place at 1 p.m., has been scheduled at the Commissioned Officers' Mess.

The Women's Auxiliary will again sponsor the Easter egg hunt for youngsters from toddlers up to 10 years of age who are children of COM members.

Hidden along with the many colored eggs will be a golden one that will be worth a special prize to the youngster who finds it.

Participants in the Easter egg hunt are asked to bring their own baskets. Those joining in the fun will be divided into groups according to their age.



MURRAY CHEERLEADERS— The season is at an end for the eight young girls pictured above. During football and basketball games they were in charge of leading the Murray School rooters, and according to all reports, they did it with exuberance and skill. The girls are: (front) Felicia Smith; second row, Mary Waters; third row, Teri Wright, Kathy Bauers and Cheryl Radcliff (l.-r.); fourth row (l.-r.) Cheryl Burkland and Lori McCahan, and in the rear is Pam Rusciolleli.

Garden Tour, Membership Dessert Set April 26 by Oasis Garden Club

The Oasis Garden Club will sponsor its annual garden tour and membership dessert on Thursday, April 26. The tour will begin at 10 a.m. and should end at approximately 3 p.m.

A donation of \$1.50 per person will be asked of all who attend. Tickets can be obtained from any club member or by calling Mrs. Charles Scarborough at 446-2214.

The tour will begin at the home of Mr. and Mrs. W. C. Osborne, 300 Perdew St., in Ridgecrest, and will then proceed to 400 Perdew St., which is the home of Mr. and Mrs. Robert Zimmer. Dessert will be served on the patio of the Zimmer home.

Staying in Ridgecrest, the tour will continue to the home of Mr. and Mrs. H. R. Roglin, 408 Perdew St., and then proceed on to 1599 N. Norma St.—the home of Mr. and Mrs. Andrew Sondrup.

Two more Ridgecrest addresses close out that portion of the tour — 506 California St., the home of Mr. and Mrs. Joe Seibold, and 816 California St., where Mr. and Mrs. Harold Cash reside.

Turning onto the Naval Weapons Center, the tour will continue at 704-A Nimitz Ave., the residence of Dr. and Mrs. Richard Kistler, and will conclude with a visit to 517 Ticonderoga St., the home of Mr. and Mrs. Alfred Pratt. Refreshments also will be served at this last stop.



WILDFLOWER SHOW COMMITTEE — Members of the WACOM committee planning the annual Wildflower Show, which is slated to be held Saturday and Sunday, April 28-29 at the Community Center, met recently to formulate ideas. They are (l.-r.): Kristen Berry, identification committee chairman; Natalie Harrison, picking committee chairman; Tina Knemeyer (seated), placement committee co-chairman; Polly Nicol, receiving committee chairman, and Barbara Alderton, staging committee chairman. According to Mrs. Knemeyer, the profusion of wildflowers this year promises to make the event one of the most outstanding held in recent years.

—Photo by PHAN Jerry Sizemore

SHOWBOAT

MOVIE RATINGS
The objective of the ratings is to inform parents about the suitability of movie content for viewing by their children.
(G) - ALL AGES ADMITTED
General Audiences
(PG) - ALL AGES ADMITTED
Parental Guidance Suggested
(R) - RESTRICTED
Under 17 requires accompanying Parent or Adult Guardian
CS - Cinemascope
STD - Standard Movie Screen
Regular starting time — 7:30 p.m.
Matinee — 1 p.m.

FRI. 20 APRIL

"MADRON" (STD 91 Min.)
Richard Boone, Leslie Caron
(Western) Traditional Western shot in Israel. Richard Boone, a tough loner, finds Leslie Caron, a nun, stranded in the middle of nowhere after an Indian attack. They make their way through danger and tedium. (PG)

SAT. 21 APRIL

—MATINEE—
"MOSQUITO SQUADRON" (STD 91 Min.)
David McCallum, Suzanne Xeve
—EVENING—
"HOFFMAN" (STD 112 Min.)
Peter Sellers, Sinead Cusack
(Comedy Drama) A modern bedroom farce concerning a middle-aged man who makes a strange pact with a beautiful young girl to have her stay with him in his apartment for a week. (PG)

SUN. & MON. 22-23 APRIL

"SATANIC" (STD 111 Min.)
Magna Kopopka, Julio Pena
(Horror) Two doctors work together in search of a scientific discovery for rejuvenation. The woman (horribly disfigured about the face) goes crazy when the partner finally makes a breakthrough.

TUES. & WED. 24-25 APRIL

"THE GETAWAY" (CS 123 Min.)
Steve McQueen, Ali MacGraw
(Action Drama) Steve McQueen, a convict, returns to his wife, Ali MacGraw, who has arranged his pardon by having an affair with Ben Johnson, an influential and rich man. (PG)

THURS. & FRI. 26-27 APRIL

"PETE N'TILLIE" (SC 101 Min.)
Walter Matthau, Carol Burnett
(Comedy) Carol Burnett meets Walter Matthau (Pete) in the early 40s through friend Geraldine Page. Eventually they have an affair which leads to marriage. Burnett gives birth to a son, Lee Harcourt Montgomery, and contends with Matthau's philandering. Tragedy strikes when Lee dies. This seriously effects their marriage and almost ruins it. (PG)

WACOM Spring Dance Scheduled May 5

The annual WACOM Spring Dance will be held at the Commissioned Officers' Club on Saturday, May 5.

Engaged to provide the music is the Art Depew Quartet. Depew has played trumpet with the orchestras of Lawrence Welk, Tommy Dorsey, Tex Benecke and Harry James.

Reservations are limited so those who are interested in attending should call Mary Clinton at 446-7123 as soon as possible to insure getting a ticket.

Tickets are priced at \$8 per couple, which includes dinner, wine and dancing. The evening will begin with cocktails at 7.

From _____

PLACE
STAMP
HERE

TO _____



nwc rocketeer

Agreement Reached On Fees for Intramural Sports

During a lengthy meeting of the Joint Navy-Civilian Recreation Council, held last week at the Community Center, agreement was reached on the schedule of fees to be charged for participation in the intramural sports program at China Lake for everyone other than military personnel.

The popularity and increased participation in the intramural sports program has made such a move necessary, it was explained by Gabe Imer, head of the Special Services Division.

In comparison with costs which totalled \$10,201.73 during Fiscal Year 1972 for the maintenance of facilities, equipment, purchase of trophies and for payment of officials to work the games, the FY 73 total will hit \$21,300 for this same list of items, which does not include the cost of sports equipment purchased with appropriated funds.

Looking farther ahead to Fiscal Year 1974, Imer forecast projected expenses totalling \$25,892 for operation of the Special Services

intramural sports program, and it was in order to meet this burgeoning expense that he reluctantly proposed the establishment of a schedule of fees to be charged those taking part in intramural athletics.

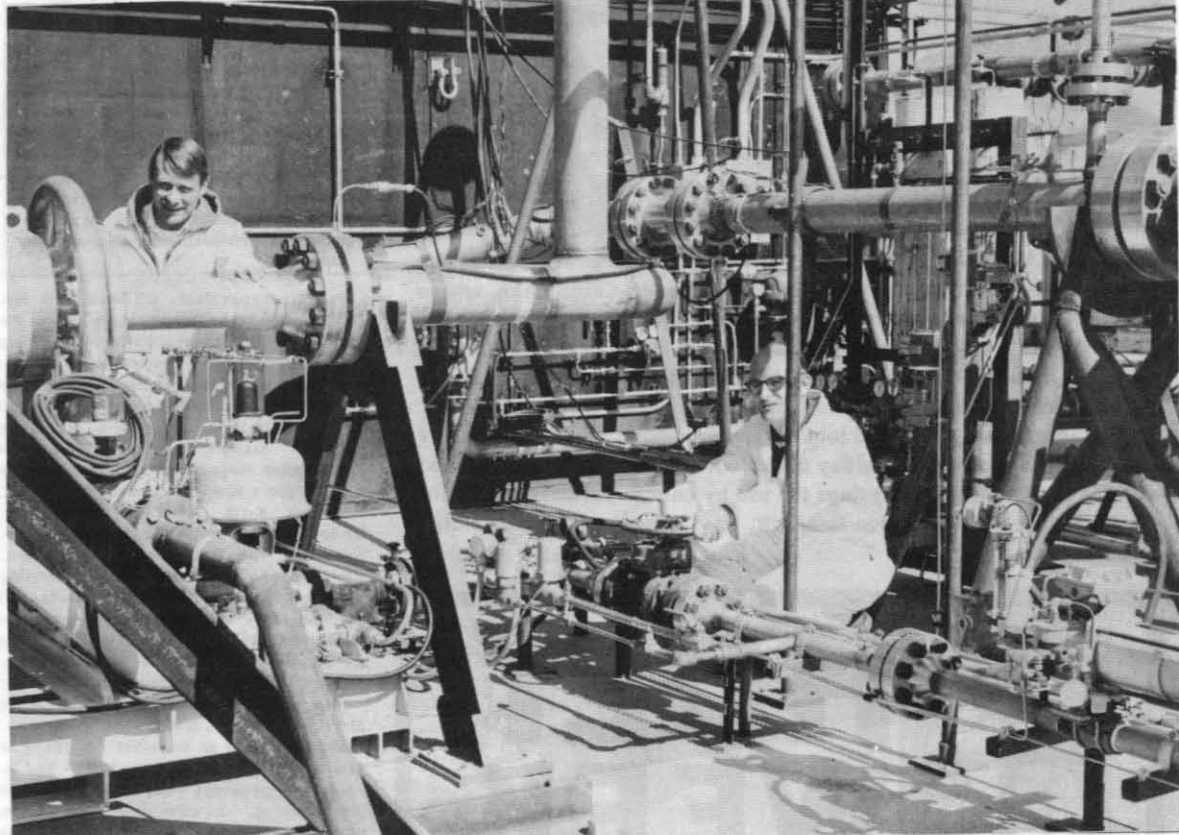
A major portion of the April 10 Recreation Council meeting was spent trying to reach agreement on the fee to be assessed for participants in the men's softball program.

The proposed charge of \$175 per team was agreed upon for the top echelon fast-pitch league only — a group of some six teams sponsored by various merchants that play exclusively on Reardon Field. This money will help cover the cost of officials needed to work the games, pay for trophies to be awarded to the league champions, and also will defray some of the expense of the extra work involved in keeping the playing field in top shape.

It's possible, also, that an official slow pitch league will be formed if there is sufficient interest among players wishing to compete under a more formal arrangement with regular officials working the games and trophies for the league winner — all at a cost of \$175 per team. At least four teams will be required to form such a league.

It was the feeling of most of the men's softball players present at the Recreation Council meeting, however, that if it meant having to raise a \$175 team entry fee, they would rather forego using umpires provided for and paid from Special Services funds, as well as trophies at the end of the season, in order to have a more informal program (at

(Continued on Page 5)



HEATER CHECK-OUT — Odell Braun (left) and Lee Horgan, engineers-in-charge of the Skytop Test Complex's Air Augmentation Facility at T-Range, adjust equipment for a hot air heater check out.

Propulsion Development Dept. Ranges Fill Wide, Varied Needs

(Editor's Note: For the past few weeks, The ROCKETEER has published a series of articles dealing with the ranges of the Naval Weapons Center. This installment, the final one of the series, reports on the ranges of the Propulsion Development Department, headed by Dr. G. W. Leonard.)

The Ballistics Test Branch (Code 4531), headed by Roy Johanboeke, operates and maintains Area R and Burro Canyon test facilities, and the Skytop Test Complex. Both

test groups provide the Center, as well as other Department of Defense agencies and contractors, with the instrumented facilities necessary to perform research, development and production testing.

Skytop
Skytop, the Navy's largest and most completely instrumented static test firing complex, is headed by Ed Regan. It was designed to advance the techniques of rocket data acquisition and provide performance information on propulsion systems being developed at NWC.

The original test facilities at the Skytop complex were built in 1958 at a cost exceeding \$5 million, and were primarily used for Polaris

missile testing during the next five years. Both the first and second stages of this missile were tested here under a variety of conditions.

Before and during that phase, other Center ballistic testing (static testing) was conducted at what is now the Vibration Test Facility.

Skytop is comprised of a series of horizontal and vertical test pads with thrust capabilities of 1,000,000 and 250,000 pounds, respectively. Temperature conditioning chambers, water deluge systems, overhead cranes, and multi-component thrust fixtures enhance the capabilities of this facility.

A consolidation in 1966 moved the liquid test facilities from Area R to

(Continued on Page 3)

Congratulations Sent On First F-86H RPV Flight

Naval Weapons Center personnel involved in the successful efforts to convert an F-86H Sabre aircraft to a remotely piloted vehicle were congratulated Tuesday in a message received from the Chief of Naval Operations in Washington, D.C. The CNO message read as follows:

"First complete no-live-operator milestone flight of converted F-86H with all-attitude proportional digital TV guidance on March 30 at NAF, China Lake, was important first step to new drone target and remotely piloted vehicle (RPV) capabilities.

"Accomplishment of development program with meager funding, and in minimum time, reflects the ingenuity and technical competence which has made the Naval Weapons Center, China

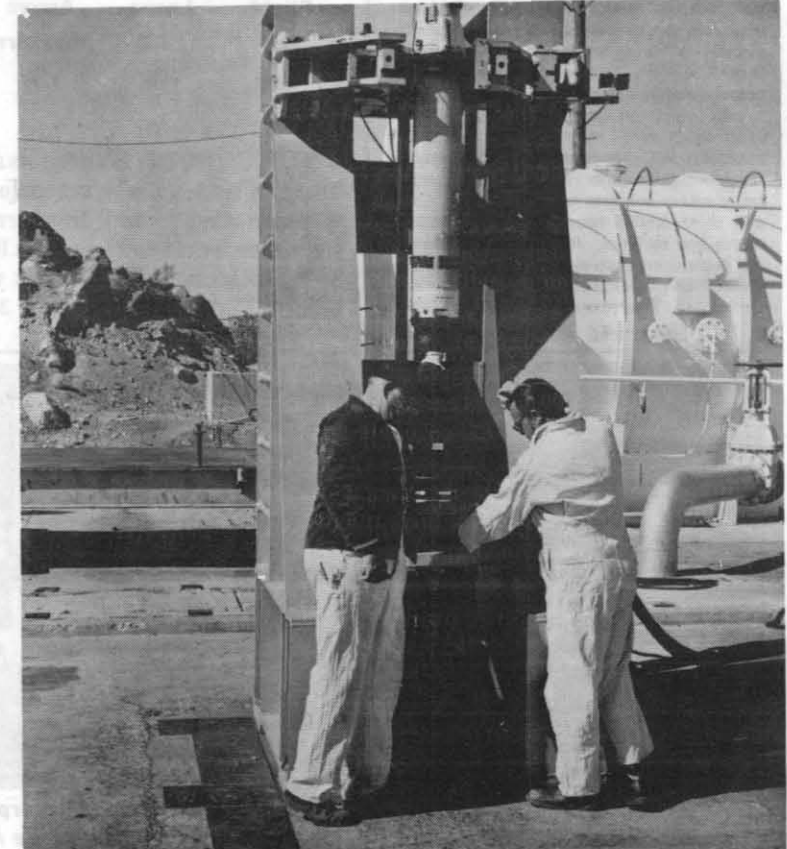
Lake, such an important contributor to the nation.

"Particular congratulations to Project Manager Vance Hansen, plus LCDr. Larry Bloese, Harlan Reep, Don Hart and the entire China Lake team for a significant accomplishment. Well done!"

In addition to the project manager role handled by Hansen, the parts played by others mentioned in this message were: LCDr. Bloese, test pilot; Reep, ground controller, and Hart, production control specialist (aircraft) at NAF.

Hansen's co-workers in the RPV Project Office of the Systems Development Department's Technology Development Division were Jay Bornfleth and John Owens, design engineers, who

(Continued on Page 3)



REMOVING SPARROW — "J" "C" Thayer (left) and Robert B. Brown, ordnancemen at Skytop Test Complex's Bay II, prepare to remove a MK38 (Sparrow) rocket motor from a vertical, multi-component test stand.



CANCER VICTIMS ASSISTED—Monthly meetings are held at the local cancer dressing station, 413-C McIntire St., China Lake, where volunteers prepare dressings for cancer patients that are either distributed for local use or forwarded to the American Cancer Society in San Bernardino. Noting that April is Cancer Month, Jackie Helfer, cancer dressing station chairman, issued an invitation for other interested persons to join her group, which meets from 1 to 4 p.m. on the second Wednesday of each month. Shown lending a hand in the preparation of dressings for use by cancer patients are (from left) Esther Neffew, Helen Newkirk, Fay Schermerhorn and Hallie Murray. —Photo by PHAN Jerry Sizemore



Protestant

Good Friday Service, this afternoon at 4:45 in the Chapel
Easter Sunday Service, 10:15 a.m., All Faith Chapel

Catholic

Holy Saturday, Easter Vigil Service, 11 p.m., followed by Midnight Mass
Easter Sunday, Masses at 8:30 and 11:30 a.m.

Confessions Schedule

Good Friday, 2-3 p.m., and 7:30-8:30 p.m.
Saturday, 12 noon-1 p.m., 3:30-5 p.m.

The Rocketeer

Official Weekly Publication
Naval Weapons Center
China Lake, California
RADM. Henry Suerstedt, Jr.
NWC Commander
M. G. Wilson
Technical Director
C. E. Van Hagan
Head,
Technical Information Department



DIVINE SERVICES

PROTESTANT
Sunday Worship Service 1015
Sunday School—All Ages 0900
Wednesday Noon Bible Study 1130
Sunday School Classes are held in Chapel Annexes 1, 2, 4 (Dorms 5, 6, 9) located opposite the Center Restaurant.
Communion Service first Sunday of the month.

ROMAN CATHOLIC

MASS
Saturday 1700 fulfill Sunday obligation
Sunday 0700 0830 1130

BLESSED SACRAMENT CHAPEL

MASS
Daily except Saturday 1135
Daily during Lent 1635
First Friday only 1135 1700

CONFESSIONS

Saturday 1545 to 1645
Sunday 0800 to 0825

CCD CLASSES

Sunday Kindergarten thru 6th grades 1015
Wednesday Seventh and 8th grades 1900
Above classes are held in Chapel Annexes across from Center Restaurant.

As announced

Ninth thru 12th grades
"In Home" Discussion Groups
Monthly Youth Rallies
Contact Chaplain's Office for specifics.

JEWISH SERVICES

EAST WING-ALL FAITH CHAPEL
Friday 1st and 3rd ONLY 2000
Sabbath Services
Saturday Sabbath School 0900

UNITARIANS

CHAPLAIN ANNEX 95
Services 1930

PROMOTIONAL OPPORTUNITIES

Applications for positions listed in this column will be accepted from current NWC employees and should be filed with the persons named in the ad. All others desiring employment with the Naval Weapons Center may contact the Employment Division, Code 452, Extension 7049. Current applications (SF-171) or Standard Form 172 should be submitted bringing your work history up to date if one has not been submitted within the last 6 months. The fact that positions are advertised in this column does not preclude the use of other means to fill these positions. Part of the ranking process of those rated as basically qualified will be a supervisory appraisal form that will be sent to the employees present and most recent previous supervisor. Selection shall be made without discrimination for any nonmerit reason.

Payroll Supervisor, GS-544-4, PD No. 7217027, Code 1744—Incumbent is head of the Payroll Section. Responsible for maintaining controls on leave and payroll, supervise pay and leave operations, serve as liaison and control point between the payroll section and other groups such as computer operations section, disbursing, etc. Minimum Qualification Requirements: 1 year general and 2 1/2 years specialized as defined in CSC Handbook X-118. Job Relevant Criteria: Understanding of accounting principles, payroll and accounting systems. Knowledgeable of regulations governing personnel actions that relate to financial and mechanized accounting systems and regulations. Thorough knowledge of payroll computation as related to processing employee's pay check and final pay.

File applications for above with Mary Morrison, Code 457, Rm. 216, Ph. 2392. Clerk-DMT, GS-316-3 or 4, PD No. 7040097, Code 4054—This position is located in the Optical Design Branch, Infrared Systems Division, Weapons Development Department. Incumbent performs clerical and typist duties for the branch head as well as for other members of the branch. Prepares technical notes, reports and rough draft copy of machine-dictated notes. Receives telephone calls and official visitors, answers non-technical questions involving branch operations, makes travel arrangements, keeping travel calendars, assemblies material for meetings, prepares stub requisitions, keeps active files of correspondence and project documents. Job Relevant Criteria: Demonstrated telephone reception, skills, experience typing administrative and technical subject matter. Knowledge of NWC correspondence, travel, timekeeping, and supply procedures is required. Minimum Qualification Requirements: As defined in CSC Handbook X-118.

Electronics Technician, GS-854-7 or 8, Code 4057, PD No. 7340053—Works with design engineers in the development of electronic circuits for laser weapons. Applies circuit theory during testing of experimental breadboards and recommends design change to improve circuit operation. Utilizes various electronic test instruments such as oscilloscopes, oscillators, voltmeters, recorders, pulse generators and other special test consoles and rate tables. Performs field and flight testing, requiring special testing setups and facilities. Job Relevant Criteria: AS degree, or equivalent, in mathematics, science and electronics fundamentals; experience working with small signal and large

(Continued on Page 7)



STAY LOOSE—Mel Sorge, head of Central Staff, tries his hand (and arms and back) at one of the movements prescribed for desk-bound workers under the physical fitness program currently sponsored by the Center for sedentary-type workers. Rita Lane, who is Sorge's secretary, illustrates a standing movement. The first two such training sessions attracted some 60 employees, and another class has been scheduled next Wednesday, April 25, from 3 to 4:30 p.m. in the Panamint Room of the Community Center. Joan Leipnik, the instructor, will welcome newcomers and also invites repeaters to return for this third class session.

Information Service Available To Recreation Seekers Expanded

A greatly augmented service for recreation seekers who are interested in learning what there is to do and see within a radius of a few hundred miles of the Naval Weapons Center will be launched with the official opening of a new information room at the Community Center at 10 a.m. next Wednesday, April 25.

A film slide show featuring color photos of scenic spots throughout the Southern California area will be presented during the official opening by Milton Speckels, local photographer of note.

Visitors will be invited to enter a contest to elect a name for this new facility. Also provided will be an extensive list of restaurants, motels and other accommodations of interest to travelers and vacation fun-seekers. It is believed that the scope of this particular facility is unique Navywide, since it augments a discount ticket service that has been available at the Community Center for some time.

NEW PLANE SCHEDULE

Effective April 30, 1973

CHINA LAKE - INYOKERN - INT'L AIRPORT

Hughes Airwest Schedule (TR's or tickets required)

NORTHBOUND (Mon. thru Fri.)			SOUTHBOUND (Mon. thru Fri.)		
Flight No.	Leave	Arrive	Flight No.	Leave	Arrive
406	LAX 1115	Inyokern 1217	507	Inyokern 1240	LAX 1340

(NOTE: Both flights stop briefly at Palmdale)
There is no regularly scheduled bus service between the Naval Weapons Center and Inyokern airport. Reservations for transportation for official travelers to and from Inyokern airport should be made during the work week with the Travel and Transportation branch, Code 8517, phone ext. 3321 or 2726.



OFF AND RUNNING—Their eyes fixed with a hard, fast purpose, children ranging from pre-kindergarten through 11 years of age charge across the lawn of the All Faith Chapel at the start of an Easter egg hunt, sponsored by the Catholic Youth Organization. The egg hunt took place last Sunday following the 11:30 a.m. Mass. Approximately 150 children took part in the hunt for plastic eggs, which were then traded in for the real thing at the conclusion of the event. Ecology and safety were the reasons behind using plastic eggs. Real, hard-boiled eggs are often not found until days, or weeks later, and may be then be poisonous, if eaten. —Photo by PHAN Jerry Sizemore

Employee In The Spotlight

Ben Hartman, head of the Security Department's Security Operations Division, is not a timid person.

Proof of this came in 1940 when he was chosen to serve as commanding officer of the first experimental ski company in the U.S. Army at Lake Placid, N.Y. Ben did not know how to ski!

"I felt pretty foolish," he recalled. "There I was, surrounded by these young men from various colleges who were all expert skiers, but I braved it through," he laughed.

Ben began life in New York City. He was graduated from high school at the Hamilton Institute — a private school in New York City — and then attended New York Military Academy and received a commission as a 2nd Lt. in the U.S. Army upon his graduation in 1937.

In 1942, Ben became one of the first five instructors at the Provost Marshal General's School, Ft. Myer, Va. During that time he organized and set up a criminal and investigative photographic course and lab subjects. Later in his career, he set up the first labs for chemical cryptology for the Army Intelligence School at Ft. Washington, Md.

Served With Intelligence
Ben served with the Counter Intelligence Branch of the Army's Intelligence group and also as an assistant Provost Marshal at Ft. Douglas, Utah. Then in 1943, he became the director of intelligence at Tule Lake, Calif., a Japanese national's camp.

While serving as chief of intelligence instruction at the Presidio in San Francisco, in early 1945, Ben taught about the proposed invasion of Japan and Formosa. The rest of his military career, until his retirement as a lieutenant colonel in 1963, was spent as an instructor and chief of instructors at many different U.S. Army intelligence schools in the United States.

Owned Business

He had a one-year break in service (1947-1948) and spent the time as owner of his own business, Commercial Service Systems, Inc., in Los Angeles. During this time, Ben assisted different types of retail merchants in the prevention of shoplifting. Today, a sign which reads "Shoplifting Is a Crime" hangs in many businesses in the United States. Ben was the originator of that slogan.

Following his retirement, Ben organized a firm called the Triangle Business Machines Co., which later merged with American Business Systems, Inc., a leader in wet process photocopy machines.

He got back into the security and intelligence business in 1965 when he accepted a job as supervising

Recorded Messages Offered on Safety

Recorded safety messages on subjects that vary at two-week intervals are currently being provided as a project of the Indian Wells Valley Community Safety Council.

Local residents can listen to the recorded safety tips by picking up their telephone and dialing 446-2774.

Information about fire dangers is the current safety message topic.



Ben M. Hartman

agent of the 115th Military Intelligence Group, Region II, with an office in Los Angeles.

He came to NWC in 1971. Since assuming his present duties, Ben has been instrumental in changing the official visitors' pass system, the casual pass system and he has initiated the special events pass system. In addition, he organized courses in security orientation for all Codes on the Center. "My personal byword in regard to security is 'Security Without Harrassment,'" he said.

Ben met his wife, Barbara, in 1938 while he was assigned to Ft. Douglas, Utah. However, the couple was not married until 1940 when Ben was attending the Infantry School at Ft. Benning, Ga.

They have two sons, Arthur Scott, 30, and Michael Terry, 26. Scott, as he is called, is the owner of a printing business in Los Angeles and Terry is a graduate of the University of California at Santa Barbara, where he is presently working at the Cancer Foundation on campus under a scholarship. He is studying nuclear medicine.

Although they are comparative newcomers to the local area, the Hartmans have managed to enmesh themselves into the local community.

Ben is a member of the China Lake Rotary Club and will sit on the board of directors next year. In addition, he has helped various youth organizations and is always available for speaking engagements about security.

While he was president of the Commercial Service Systems firm, Ben was a good friend and co-worker with Paul Coates, the Los Angeles Times columnist who had a television program called "Confidential File." Ben was hired by Coates to expose the "black magic" cults around the L.A. area, and also handled other work for the writer.

"Barbara is so busy, that I have to make an appointment to see her," Ben said. She is a member of the Oasis Garden Club, the local bridge club, WACOM and she is also a teacher of kindergarten in the Los Angeles City School system. "She commutes," Ben said simply, with a big sigh.

His hobbies begin with his family and his work. "And they nearly end there," he said. He does find time, however, to collect model cannons and books on security.

PROMOTIONAL OPPORTUNITIES

(Continued from Page 2)

bandwidth, signal processing, digital electronics and logic and a working knowledge of special design practices required for military packaging. Minimum Qualification Requirements: As defined in CSC Handbook X-118. Re-advertised to correct grade level and educational requirements from GS-7 to GS-7 or 8, and BS to AS degree. Those who previously applied for this position as advertised April 13, 1973, need not reapply.

Clerk-Typist, GS-323-3 or 4, PD No. 7340037, Code 4052—This position is located in the Control Systems Branch, Infrared Systems Division, Weapons Development Department. Incumbent provides clerical assistance to branch personnel and supervisors. Prepares technical notes, reports and correspondence from handwritten and rough draft copy or machine-dictated notes. Receives telephone calls and official visitors, answers non-technical questions involving branch operations, makes travel arrangements, keeping meeting and travel calendars, assemblies material for meetings, prepares stub requisitions, keeps active files of correspondence and project documents. Job Relevant Criteria: Demonstrated telephone reception skills, experience typing administrative and technical subject matter. Knowledge of NWC correspondence, travel, timekeeping, and supply procedures is required. Minimum Qualification Requirements: As defined in CSC Handbook X-118. Re-advertised: those who previously applied for this position as advertised March 30 need not reapply.

File applications for above with Elizabeth Sodergren, Bldg. 34, Rm. 206, Ph. 2676.

Editorial Clerk, GS-1087-4 or 5, PD No. 7345048, Code 4551—This position is located in the Documentation Branch, Engineering Division, Propulsion Development Department. The function of this branch is to provide technical film reports, slide presentations, photographic booklets, illustrations and technical reports to present information on the department's technical programs and facilities. Incumbent assures that manuscripts are suitable for publication in terms of organization, format, grammar, spelling, punctuation, abbreviations, verification of references, and correct use of symbols. Assures material to be published has been reviewed and concurred in. Minimum Qualification Requirements: One year of general clerical experience plus one year of specialized experience for the GS-4 and two years of specialized experience for the GS-5 in the type of work shown above. Job Relevant Criteria: Experience in copy editing and typing technical reports for publications is desired. Experience with IBM magnetic tape selective typewriter required and experience with IBM composer desirable. Advancement Potential: To the GS-6 level.

File applications for above with Linda Grossman, Bldg. 34, Rm. 204, Ph. 2925.

Mail and File Clerk, GS-395-3, 4, or 5; PD No. 7370910, Code 7002—This position is located in the Department Staff, Public Works Department. Incumbent receives and distributes all incoming mail for the department. Prepares out-going mail, including specialized material such as contracts and contract payments. Maintains the official correspondence instructions, and notices file for the department. Maintains a system to follow-up on routed material as needed. Performs other miscellaneous clerical duties. Minimum Qualification Requirements: In accordance with the appropriate standard in Handbook X-118. Job Relevant Criteria: Must be able to work with a variety of records systems. Must have knowledge of Navy correspondence and file systems. Show initiative with little or minimum supervision.

File applications for above with Linda Grossman, Bldg. 34, Rm. 204, Ph. 2925.

Two B. R. Wherry
Gavigan, E5; Rogers, E4; Davis, E6; Stroschein, E4; Bengston, GS-7; Murray, GS-7; Moore, GS-7; Sanchez, E4; Cristobal, E6; Souza, E4; Borg, E5; Schmidt, E6; Carter, GS-7.

Three B. R. Wherry
Pott, WG3; Verinsky, EQ9; Hinz, WG5; Greeland, GS-7; Leach, GS-9; Sweet, WG7; Wittenbrink, GS-7; Horton, GS-4.

Four B. R. Wherry
Gonzales, E6.

Two B. R. Normac-Duplex
Crawford, GS-11.

Three B. R. Normac-Duplex
Walters, GS-12; Ward, GS-11.

Three B. R. Juniper
Haney, GS-13; Tsubakharu, GS-13.

Three B. R. Yucca
Richardson, E7.

Four B. R. Joshua
Wilson, GS-11.

Two B. R. Old Duplex
Carter, O3; Durham, GS-11; Duke, GS-12; Bedient, E7; Strunk, GS-9; Blanc, GS-12; Lopez, GS-12; Smith, GS-11.

Two B. R. Old Duplex, LBP
Chandler, GS-4; Lusher, WG-5; Smith, WG-5; Stowell, WG-7.

Three B. R. Hill Duplex
Sykes, GS-14.

Two B. R. JOQ
Nyswander, GS-13.

Three B. R. Panamint
Harrington, GS-13.

"O" B. R. Motel
Newkirk, GS-14; Peters, GS-9.

Two B. R. Normac
Phillips, GS-5; Yuoso, E3; Stanaas, GS-3; Welsh, GS-3; McClellan, WG6; McCorkle, GS-4; Trigg, GS-5; Weinstein, WG10; Holly, GS-3; Foster, WG9; Adams, GS-4; Luna, E2; Dierdorf, EQ3; Adams, GS-3.

Two B. R. LeTourneau
Mendoza, E3; Calderon, E2; Lewis III, GS-3; Bower, E3.

Two B. R. Apartment
Smith, WG10.

Clerk-Typist, GS-323-3 or 4, PD No. 7370909, Code 7008—This position is in the Work

HAIL AND FAREWELL

For the month of March 1973.

NEW ARRIVALS - CIVILIAN

Code 25924—Robert G. Holley; Code 3524—Donald G. Wilson; Code 3544—Alfred G. Williams; Code 3545—Francis L. Greenland; Code 3556—Michael J. Murphy; Code 40408—Stephen N. Zissos; Code 4008—John B. Bain; Code 5043—Roger W. Leach; Code 4521—Eleanor L. Brammer and Judy A. Meyer; Code 70433—Joseph E. Foster; Code 8822—Barbara J. Whitaker.

CIVILIAN DEPARTURES

Code 04—Allen B. Fullerton; Code 1703—Marilyn R. Ferri; Code 2522—Ralph D. Alvarado; Code 25981—Jesse G. Fisher; Code 30102—George H. Leithner; Code 3037—Andrea M. Keith; Code 3061—Neville W. Rees; Code 3507—Bob G. Schoff; Code 35631—Melvin F. Warnock; Code 404—Jane E. Marcus; Code 4531—Kenneth F. Seymour; Code 5031—Tennynson W. Lewis; Code 55035—Maurice J. Curtis; Code 55455—Warren E. Messenger; Code 55454—James Harper Jr.; Code 5545K—Edward J. Polek; Code 573—Henry H. Wair; Code 70403—Frederick W. Dilic; Code 70415—Donald R. Wetzel; Code 70433—Darwin Comer; Code 704—John C. Stacks; Code 7083—James D. Moler; Code 7511—Lenor J. Christman; Code 8822—Dessie M. Walker.

NAF OFFICERS

Arrivals: Ens. Nancy Davis
Departures: Lt. Rosalind E. Fisher, Lt. Roger Gulbransen and Lt. Marco Renella.

Arrivals: GMDC Daryl M. Bedient, ADJAA Alfredo A. Calderon, FTM1 Bob Cristobal, SN Mary S. Etheridge, ADJ2 Patrick H. Gavigan, RMSA Tod Ireland, ADJAA Stephen M. Kinkaid, RM1 Laszlo Nemes, RM1 Leo F. Pherson, ASG Allen P. Richardson, SR William R. Stanton, ADJAA Timothy P. Strawmyre, HM2 John C. Stacks, SN Lorna G. Totten, and SD3 John A. Ugalde.

Departures: PN Woodrow B. Baldwin, HM Edwin J. Patten, AA Angel T. Perez-Morales, AG1 Gayle T. Smith, and AA Clendon Terry.

VX-5 OFFICERS

Arrival: Cdr. Larry E. Kaufman.
Departure: Lt. David E. Charter.

VX-5 Enlisted Personnel
Arrivals: SN Paul G. Blackwell, SA Randall L. Conlon, AT1 Donald W. Davis, CS2 Carl M. Flanagan, AQ2 Robert L. Scott, YNSR John T. Schuler, AR Gary A. Smith, and AA Daryl L. Turner.

Departures: YNS Ronald L. Andrews, PR2 Larry D. Brattle, AT3 Franklin E. Covey, AT1 Thomas D. Funn, AE3 Robert J. Hoyt, AE3 Thomas R. Rains, AP2 Charles Susman and AN Elmer J. Wylie.

Marine Liaison Office

Departure: SSGT. Ralph D. Rinaldi.

9 Men Re-enlist

Military enlistments at the Naval Weapons Center through the month of March.

Naval Air Facility
ADJ2 John S. Dellelunga, Cold Line, Maintenance Dept. (6 yrs.).

ADRC Lawrence E. Ellis, CPO in charge of Cold Line, Maintenance Dept. (4 yrs.).

AGSS Stanley A. Hess, Personnel, Administration Office (6 yrs.).

AZ3 David Hille, Maintenance Control (6 yrs.).

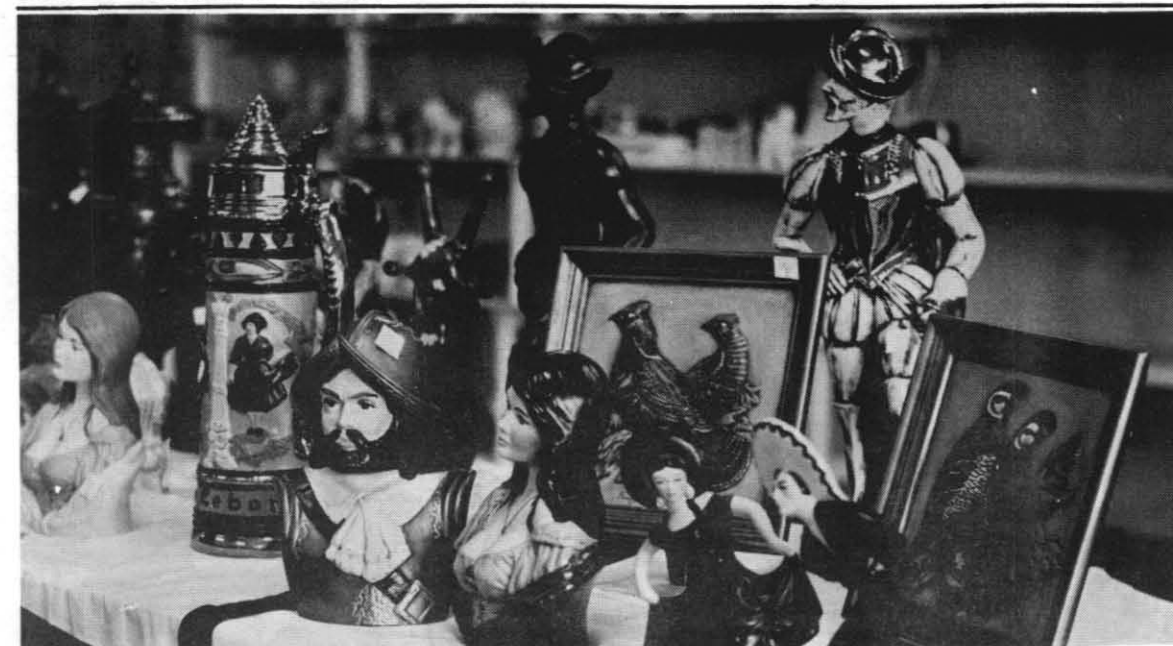
AQ53 Michael P. Kocinski, Fire Control Shop, Maintenance Dept. (6 yrs.).

PR2 Leslie E. Nash, Paraloft Shop, Maintenance Dept. (6 yrs.).

AQ1 Henry K. Nelson, Fire Control Shop, Maintenance Dept. (6 yrs.).

ADRAM Mark W. Phillips, Cold Line, Maintenance Dept. (6 yrs.).

VX-5
AQ3 James L. Thomas, Aviation Fire Control Technician Shop, Maintenance Div. (6 yrs.).



HUGE SUCCESS—The most successful ceramics hobby show ever held at NWC was concluded last weekend as more than 300 persons viewed 250 different ceramics pieces, (some of which are shown above) at the NWC Ceramics Hobby Shop. Lillian Foit was judged by a panel of experts to have the "Best of Show" entry—an underglazed design plate. The public, however, voted Jerry Clodt's Nativity set as "Best of Show." In the youth class, a chess set done in a lustre by Richard Ryan, took the sweepstakes award. Persons who wish to join the NWC Ceramics Club may do so by calling Aline Schad, the hobby shop manager, at NWC ext. 2942. Hours of the shop are 6 to 10 p.m. on Monday, Wednesday and Thursday, and from 11 a.m. to 4 p.m. on Tuesday and Friday.

NWC Sports Notes

Entries are now being accepted for the 1973 Intramural Golf League, slated to kickoff on May 15.

Team rosters will consist of four regular golfers and two alternates. Only golfers with an established Southern California Golf Association (SCGA) handicap will be allowed to participate. Otherwise, entries are open to all male members of the China Lake Golf Club.

Deadline for team entries is 4:30 p.m., May 1. All entries should be submitted to Special Services, 76 Bard St.

A team captains' meeting will be held at the golf clubhouse on May 8, beginning at 4 p.m.

Team No. 1 Leads
With only two weeks remaining in the Women's Scratch Bowling League, Team No. 1 is clinging tenaciously to a two-game lead over the AV Trophy keggerettes.

In action last week, Doris Cosner led the scoring with a 229 game and a 587 series. Darlene Herbstreit managed a 535.

The week before Pat Brightwell banged out a big 608 series. Marlys Bowles shot a 558 set, and Aiko White recorded a 543 tally.

Varsity Tennis
Anyone interested in trying out for the NWC Varsity tennis team is asked to contact LCdr. Bob Castle, at NWC ext. 5254 or 5214, no later than 4:30 p.m. next Friday, April 27.

This team will compete in the Mojave Desert Inter-Service League tennis tournament to be held May 18-20 at Norton AFB in San Bernardino.

Varsity Softball

Registration for the varsity softball program ends today at 4:30 p.m. The program is open to both military and civilian personnel.

Players may participate in both intramural and the varsity programs.

Further information may be obtained by contacting Denkin at NWC ext. 2334.

Little League Opens

The official opening of Little League baseball at China Lake will take place Monday at 6 p.m. at

NAF CPOs Beat NWC Officers In Softball Duel

The age-old "feud" between the U. S. Navy's officers and Chief Petty Officers was decided recently (at least, temporarily) when a team of NWC officers met a team of NAF CPOs to engage in the time-honored sport of softball.

The Chiefs emerged the winners, 17-11, thereby substantiating the rumor that it's really the CPOs who run the Navy.

Richard Davis, the Chiefs' pitcher, managed to baffle the officers with his whirlwind pitching, while his brass counterpart, Frank Castillo, issued only a moderate few walks and legitimate hits.

However, some wild and woolly fielding by his officers' infield made Castillo's efforts null and void.

Jim Brown, of the Chiefs, led the hitting attack with 3 for 5, including a home run.

"Hot Dog" Brown countered for the officers with a homer of his own as his team rallied for nine runs in the seventh inning, but still fell short.

Diamond No. 4, located at the intersection of Richmond Rd. and Halsey Ave.

According to Casey Wilson, Little League publicity chairman, opening ceremonies will be followed by a full slate of games by major division teams.

Everyone is invited to attend.

Deep-Sea Trip
Again this year, the 83-ft. converted Coast Guard cutter, Miss Norris, which belongs to NAS North Island, near San Diego, has been reserved for a deep-sea fishing trip for NWC military personnel.

The trip will take place on Friday, May 11. Transportation has been arranged for 30 fishermen. All interested personnel should contact the Special Services Office, ext. 3791, or stop by 76 Bard St. no later than 4:30 p.m., Saturday, April 28.

Intramural Softball

The Naval Weapons Center's intramural softball season will begin on May 14.

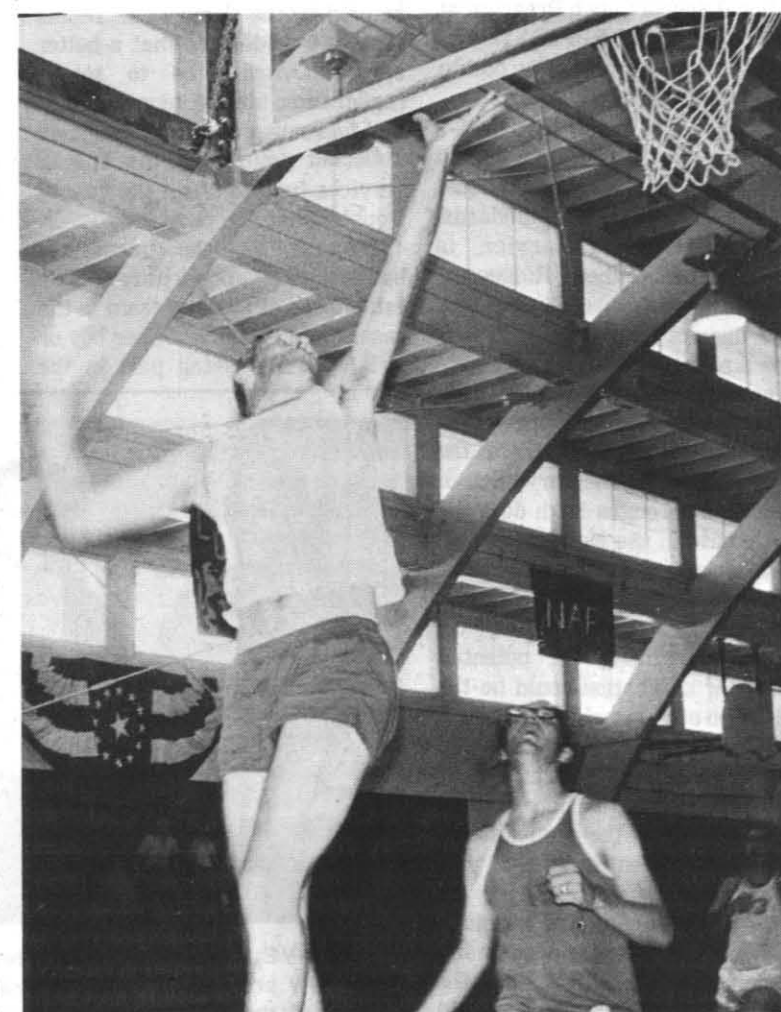
According to Ray Gier, NWC's recreation director, an entry fee will be charged all civilian teams and mixed civilian and military teams entered in the fast pitch league.

In addition, if enough interest is shown in forming an official slow pitch league wherein Special Services supplies umpires, trophies, etc., the same entry fee rules will apply.

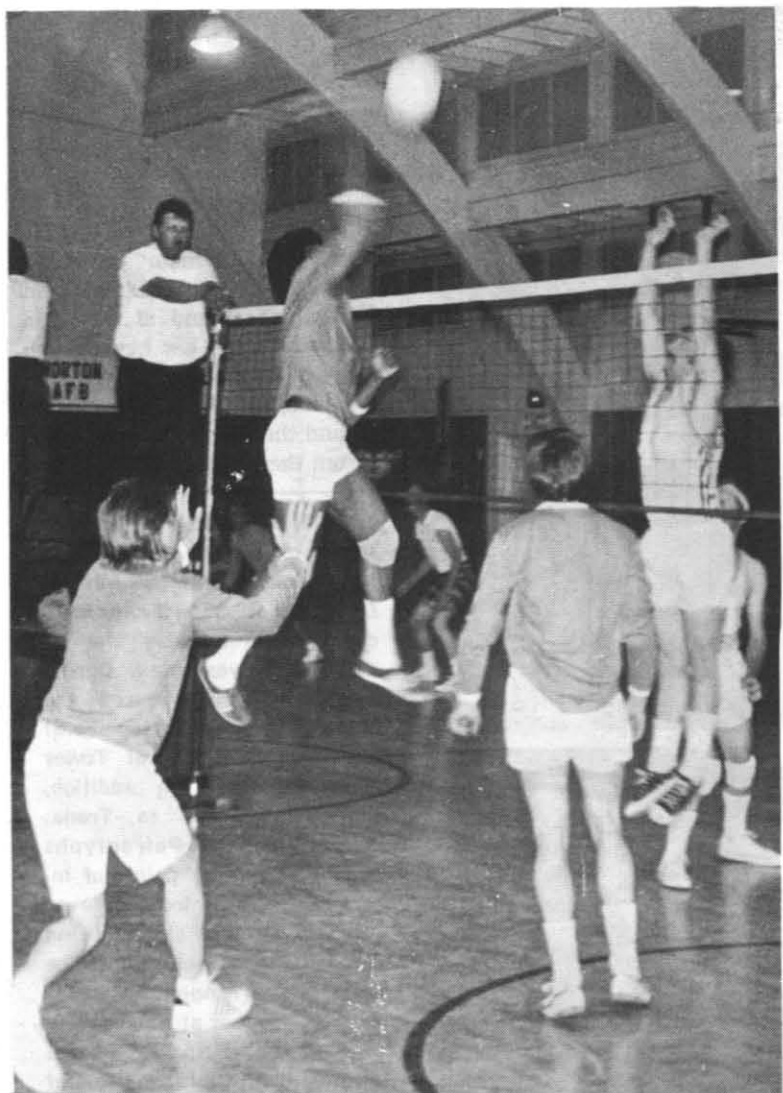
There will be no charge to teams whose make-up is 100 per cent military.

Friday, May 4, has been set as the deadline for submission of team rosters, which are to include no more than 17 members.

All questions should be directed to Marty Denkin or Bill Nicol, phone NWC ext. 2334.



THE WHITES HAVE IT! — Al Sorenson, a leading scorer for the "whites" during the Division B All Star Game played last Saturday, goes in for an easy lay-up against "red" defender Dennis Heggem. Sorenson tallied 22 points, while his teammate Doug Kinney totaled 24 to lead their team to a 93-72 victory. In the Division A All Star game, on the same day, Benny McCargo scored 26 points as his "blue" hoopers barely defeated the "white" cagers, 86-80. Scott Shacklett ("blues") netted 19 and Tim Tyrell ("whites") scored 17 points. —Photo by Leo Rickmers



GIVE 'EM THE AX! — Ted Bailey, of the Hatchetmen, spikes the ball against an unidentified Loewen's Lions front line defender during last Tuesday night's volleyball action. The Hatchetmen remained undefeated as they tumbled the Lions in three straight games. Jerry Kissick (dark shirt, right), and Tim Higgins (left), watch the action.

Hatchetmen Continue To Dominate Volleyball Play

The Hatchetmen are completely dominating Division A of the China Lake Intramural Volleyball League again this year. Undeclared thus far in 12 games, last year's champs are showing the same class they displayed in 1972

when they were undefeated for the season.

In last Tuesday night's play at the Center gymnasium, the Men trounced the Loewen's Lions netmen 15-4, 15-6, 15-11. The Lions then turned right around in the second match-up of the evening and took two games from the Cudboos, 15-13, and 16-14, before losing the finale, 14-16.

In another Division A volleyball game played Tuesday evening, the Yahoos bounced the Bouncers, 15-9 and 17-5, but then dropped the last game, 9-15.

In a Division B-2 contest, the Snorts whipped the Sandfleas twice, 15-5 and 15-11, and then were beaten, 9-15.

Women's action on Tuesday saw the Bouncin' Boobs continue to droop as they were shellacked by the Ifs, 2-15, 3-15 and 7-15. The Hits and Misses won a pair from the Sweet Things, 16-14 and 15-4, but lost one game, 10-15.

Other women's games saw the Net Climbers sock it to the Maybes, 15-12, 17-15 and 15-9, while the Hummers took two from the Net Hangers, 15-7, 15-8, before losing 15-9.

Last Week's Action

Volleyball action last week in Division A began with the Hatchetmen defeating the Yahoos, 15-3, 15-5 and 15-10, and the VX-5 netmen clobbered the Cudboos, 15-11, 15-12 and 15-13.

In other Division A contests, the Hatchetmen dropped the Lions, 15-1, 15-5 and 15-6, the Bouncers defeated the Yahoos, 15-7 and 15-9 before losing the final game, 8-15, and VX-5 took two from the Cudboos after losing the opener, 14-16. The Vampires won by scores of 15-4 and 15-8.



By Jack Lindsey

One of the joys of being a crystal ball gazer comes when you are proven to be right. In the recently-concluded Women's Invitational Golf Tournament, held by the China Lake Women's Golf Club, I hit it on the nose with three winners out of five.

Those odds I like. Donna Shoblom was the winner of the second flight low gross prize; Eileen Russell took the first flight low gross medal; and Ivy Babbitt, from the Calabasas Country Club, was low gross winner of the field.

The other two victors were Wanda Watson, playing out of Azusa, who was the low net winner for the field, and Sue Bates, who took the third flight low gross championship.

More than 95 women competed in the tournament, of which approximately 60 were from out of town. The event was a huge success, and local members can be proud of the turnout — the largest ever.

Men Planning Tourney

The China Lake Men's Golf Club is planning a humdinger for its May tournament. Chris Peterson, the club's tournament director, stated that the next event will be a "string" contest.

Participants will be issued a ball of string that is as many feet long as the golfer is handicapped. For instance I would get a string 17 ft. long as my handicap is 17.

No, you do not attempt to strangle the other golfers with the string! Nor is it to be used to hang yourself if you shoot bad. You may use the string whenever you want to save a stroke.

Hypothetically, if I missed a putt by six inches for a par, I could measure the distance from the ball to the cup, cut off that much string, and record a par on the scorecard. The string may be used to pick a ball up from a ditch, removal from sand traps, etc. However, once the string is gone, so are the strokes.

Chris says the string can best be put to use for any distance under a foot. "Then you are using it correctly and to best advantage," he points out.

This fun-tournament will take place on Saturday, May 5. A sign-up sheet will be located in the clubhouse, and entries will close on Thursday, May 3, at 4:30 p.m.

All those who register for the event are committed to pay the fee even if they do not play.

Applications are now being taken from military personnel who plan to participate in the annual Dewing Golf Classic on May 16, 17 and 18 at the China Lake Golf Course.

Duffers who wish to sign up are asked to call Larry Boyd, ext. 5474, or Dick Bauers, ext. 5324. Golfers are urged to apply early.

Ranges Serve Widely Varied Needs...

(Continued from Page 1)
the Skytop Test Complex. In conjunction with this move, new liquid propellant test bays, storage areas, and a fire control center were built and designated as Bay IV. This enabled both solid and liquid test programs to be conducted in one area, which meant better utilization of the test facilities and personnel.

Some of the programs that have been conducted at Bay IV include Condor expulsion, gas generator development, radar attenuation and variable thrust studies, material studies and fuel to oxidizer performance studies.

Support facilities, which include simulated aerodynamic heating and altitude testing capabilities, a fast cook-off "cage" for propulsive devices, and hybrid propulsion units and explosive testing are allied with the test sites to provide the versatile total test capability required by both large and small test programs.

Air Augmentation Facility

The Air Augmentation Facility at T-Range provides high flow rates of ambient to 4000 Deg. F air for stationary ram-jet tests and certain aerodynamic studies.

Two primary fire control centers with over 200 transducer channels are available for measurement of pressure, force, strain, temperature, position, flow, shock and vibration. Modular-type signal-conditioning, closed-loop control, data scalars, and automatic control systems augment the modern instrumentation facilities. Data are displayed on light-beam oscillographs and stored on analog tape recorders.

In addition, a high speed digital processing system is available for real-time data acquisition. Time-history listings and plots in engineering units are quickly available upon test completion.

Other Weapons Tested

Since the conclusion of the Polaris missile testing, Skytop has been involved with such programs as Sidewinder, Shrike, RAP, Agile, Bomroc, ALVRJ, Quick Turn, and ERA.

Other government agencies, as well as many DoD contractors, have utilized Skytop's many capabilities over the years. This list includes Aerojet Corp., the

Pass Revised...

(Continued from Page 1)
those taking part in such outings are advised to make sure they have enough gasoline to cover the distance to be traveled, as well as water.

If out-of-towners are to be invited to join in such a trip, it's well for local sponsors to have arrangements for other recreation in mind in the event that the range area must be closed for firing or due to inclement weather.

In the case of group tours to the NWC range area by clubs or organizations, the emphasis is on advance notification of plans, since such requests must be routed via the Public Affairs Office (Code 023) in order to ascertain that no other tours are scheduled at the same time to the same place.

In addition, notice of such tours also must be reviewed by the NWC Director of Security and the Police Division and, if more than 10 vehicles are involved in the outing, the request for a recreation pass is referred to the Public Works Officer for comments on environmental considerations.

United Technology Center (UTC), Lockheed Aircraft, Rocketdyne, Hercules, North American Rockwell, and Alleghany Ballistics Laboratory (ABL).

Cine-X Unit

An article about Skytop would not be complete without mentioning the cinefluorographic (Cine-X) unit available there. This unit offers a unique, one-of-a-kind, capability.

Using X-ray movie techniques, the system has served as a valuable tool for internal dynamic inspection of rocket motors and missile-oriented devices. Results are viewed, or recorded, on motion picture film, still photographs, direct view, or closed-circuit television, which is used with a video tape recorder to provide immediate playback with slow motion and stop action available.

The maximum area of coverage is approximately a 14-in. square area. Viewing data are normally recorded on a 16mm movie camera at frame rates from 20 to 1,000 frames per sec.

The extremely rugged unit is mobile and can cover any portion of the test specimen between 1 and 5 ft. from the ground. Through use of a variable speed drive motor and screw jack, this unit can be traversed laterally 4½ ft. to scan along the length of a test object.

Area R

The Area "R" Test Complex, headed by Robert Clark, is an assembly of test sites with a broad capability for explosive research and evaluation. Each of the area's test sites is controlled through a fire-control barricade. All of these barricades are equipped with synchronized photographic coverage to 32,000 frames per sec., and miscellaneous electronic devices as required. The explosive limits for these sites vary from 5 to 50 lb. of equivalent TNT.

Two of the test sites are equipped with 5,000,000 frames per sec. fixed position Cordin cameras for use in measuring the rate of explosive propagation, shock wave phenomena, shaped charge characteristics, and similar studies.

Explosive light sources are used to provide the intense illumination necessary to expose color film emulsions at sub-microsecond exposures.

Streak Cameras Used

Two Beckman-Whitley high speed streak cameras are used primarily for research studies of detonation turbulence and impact sensitivity of explosives.

Also available at Area R are drop towers, a 50 ft. square steel-lined water pit for anti-compromise recovery and warhead arenas for fragment recovery, measurement of fragment velocities, pressures, etc., a flare testing facility with a 30 ft high by 6 ft. diameter test chamber, equipped with a variable speed fan to simulate a variety of descent conditions.

Warhead firings and explosive testing has been conducted at Area R since the early days of the Center, initially handled by military personnel. Early efforts were centered around research explosive testing which then phased into development work.

Since the early days, a number of test areas have been built. Much of the initial effort was spent on such programs as Terrier, Zuni, 2.75 in. and warhead shape charges.

Present users of the facilities include Sparrow, APAM, AIM-9L, and Explosive Research Groups.

Clark's responsibility also extends to the operation of the Burro Canyon Test Complex, which has been used to test Walleye, ARM, Phoenix, and Condor warheads. The complex is composed of test sites utilizing natural semi-amphitheaters and has a present explosive limit of 2,000 lb. of TNT (or equivalent), which could be increased significantly by developing other areas further up Burro Canyon.

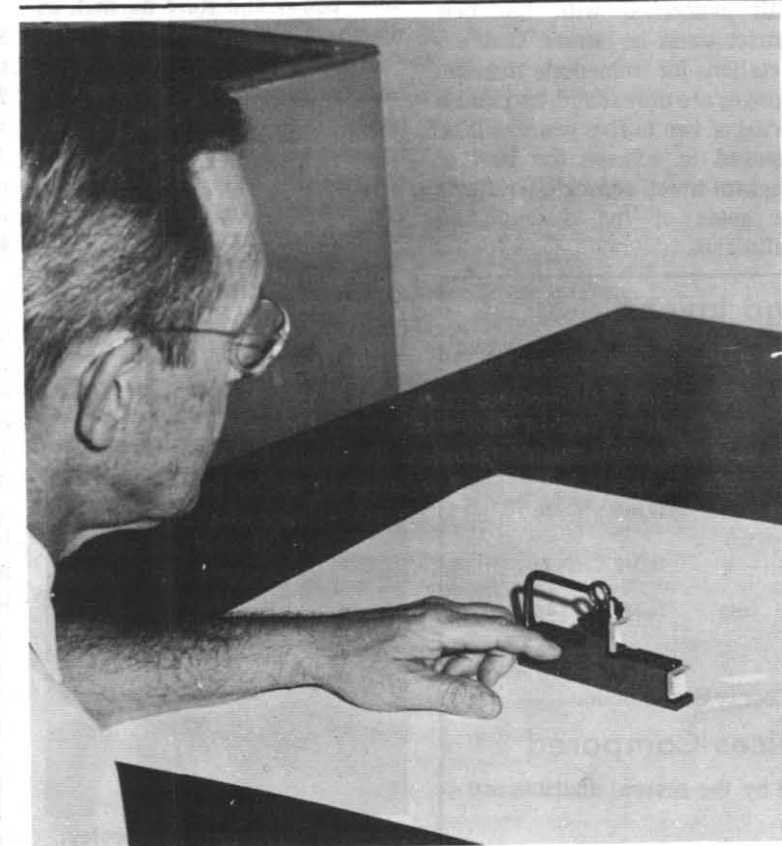
The present five test areas are designated as Arenas "A" through "E." All are controlled from a central fire-control barricade equipped with digital camera and firing circuits that can be controlled to 100 milliseconds for fully synchronized photographic coverage at each test site.

Other Tests Possible

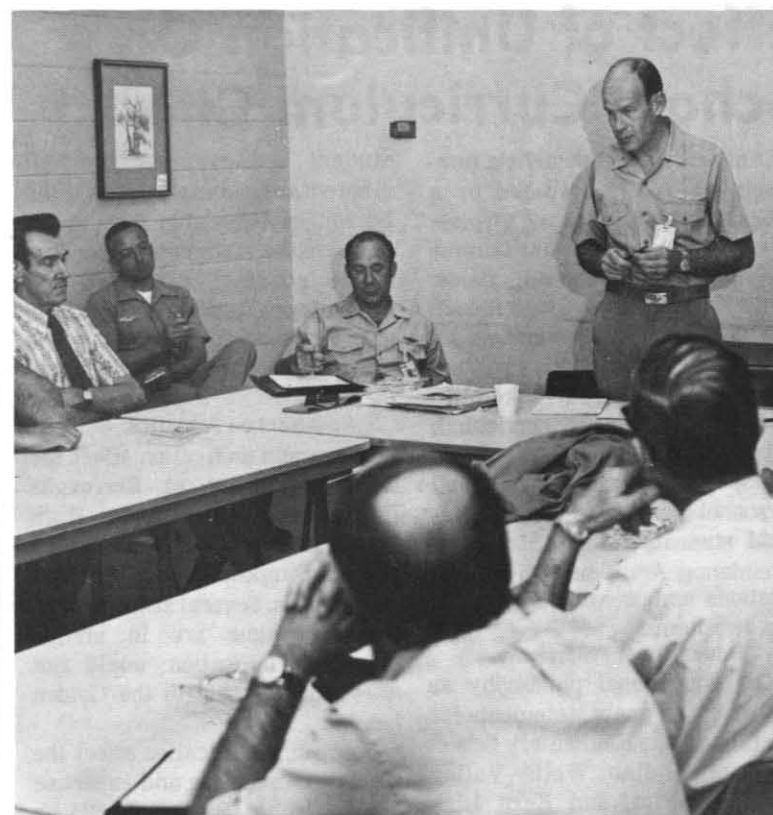
'Arena "A" has a drop-tower to provide 40 ft. drops onto steel and concrete pads. This arena is also used for bullet-impact tests on large warheads and other ordnance. Arenas "B," "C" and "D" are utilized for determining a large warhead's effectiveness against targets such as bridge-structures, radar vans in revetments, large concrete blocks and miscellaneous steel structures.

Shaped-charge jet and fragment velocities, as well as pressure measurements, may also be determined at these sites. In addition, safe-separation tests, involving warhead detonation while the missile motor is burning, are also conducted in these arenas.

Arena "E" has been constructed as an 8-ft.-diameter arena, but could be increased if necessary. It is used for fragment recovery, fragment velocities and pressure measurements.



ADDED TO COLLECTION — Etalon No. VIII, one of nine intermediate standards used by Albert A. Michelson in his measurement of the standard meter in wave lengths of the red cadmium ray, was received this week for addition to the Naval Weapons Center's Michelson Museum. Correspondence initiated by Ted McAllister (seen above) consultant in the Technical Information Department and curator of the Michelson Museum, resulted in this gift from Director Jean Terrien, of the International Bureau of Weights and Measures at Sevres, France. This is believed to be the only piece of Michelson's original equipment related to his work on measurement of the standard meter that is available in the United States, and it is also the oldest item in the NWC collection — dating back to 1892. This latest addition to the Michelson Museum also includes two of the original notebooks recording the data obtained by Michelson in conducting the measurement work.



ARMED FORCES DAY PLANNERS — Cdr. R. L. Wright, (standing) Executive Officer of VX-5 who has been appointed to serve as NWC's Armed Forces Day project officer, is shown addressing the first meeting of committee members representing various Center departments and commands who assembled Tuesday to talk over plans for the local observance of Armed Forces Day on Saturday, May 19. A general format for the day, similar to past years celebrations, was discussed and agreed upon — leaving details to be worked out as the date nears for this annual event.

Dr. Knipe Wins Seat On China Lake School Board

In a close race for the lone short-term vacancy on the China Lake Elementary School District's board of trustees, unofficial results of Tuesday's election show that Dr. Richard Knipe was the winner by the narrow margin of eight votes.

Dr. Knipe, a physicist in the Chemical Kinetics Branch of the Research Department's Chemistry Division, received 183 votes to 175 for William T. Cooper, his opponent.

Other victors in Tuesday's school district elections, and their vote totals, were:

Rayburn Dezenber (7,611), George Ablin (5,989), and J. Craig Jenkins (4,972), all of Bakersfield, were chosen to fill the three vacancies on the Kern High School District Board.

Angus M. Marchbanks (8,475) and Mark G. Raney (8,448) were re-elected to the Kern Community College District board as representatives of Trustee Area No. 1.

Enrollment For Clerical Seminar Now Being Taken

Enrollment is now being taken for a basic NWC clerical seminar that will be held during the week of May 21-25 at the Training Center.

The week-long seminar will include workshops on forms management, records disposal, Navy correspondence, message preparation and supply procedures.

Nominations for enrollment should be submitted on NWC Enrollment Form 12410/28 via department channels in order to reach Code 654 no later than Friday, May 11.

Well Done...

(Continued from Page 1)

designed all command functions aboard the aircraft and on the ground, as well as the telemetry functions on the ground and in the air, and Hal Schmeer, a technician from Code 30401, who handled work related to conversion of the aircraft.

The China Lake team also included Naval Air Facility personnel assigned to the Intermediate Maintenance Division, the Airframes, Power Plants and Avionics Sections of the Organizational Maintenance Department, and the Line Servicing Division.

Effect of Unification On School Curriculum Cited

(Editor's note: This article summarizes a report prepared by a subcommittee headed by Virginia Lundstrom, assisted by Dorothy Jackson, Elena Johnson, David Kyser, Judy Lind, Lucille Peterson and Louise Riffe, as members.)

The Curriculum and Program Subcommittee was asked to identify the general curriculum impact of unification, to explore the special education and pupil personnel services presently offered students in the Burroughs Attendance Area, and to collect questions and answers about the first two items.

Educational Philosophy

The educational philosophy as stated in the goals statements for the China Lake Elementary School District, Indian Wells Valley School District, and Kern High School District are not directly comparable. (Rand District had no goals statement available.) However, a common thread of providing basic language and mathematics skills, and of helping each student achieve his full potential runs through all of them.

There are no contradictory statements as to how these goals will be achieved, nor do other areas of educational philosophy seem to contradict each other.

Special Ed Services

The Special Education Services in the Burroughs Attendance Area include classes for the Educationally Handicapped, Educable Mentally Retarded, Trainable Mentally Retarded, Deaf and Hard of Hearing, Aphasic, and Orthopedically Handicapped which are available for all elementary age children. Burroughs High School offers classes for the Educationally Handicapped, Educable Mentally Retarded, an Opportunity Class, and a Vocational Education Program.

The average class sizes in the several districts for the year 1971-72 were: China Lake, 22; Indian Wells 27; Rand, 20, and Burroughs, 30.

The results of California's mandated testing program for the school year 1970-71 show that

student achievement for all elementary districts in the Burroughs Attendance Area are at or above the state average in first grade reading, second grade reading, sixth grade reading, sixth grade language arts, sixth grade study skills, and sixth grade arithmetic.

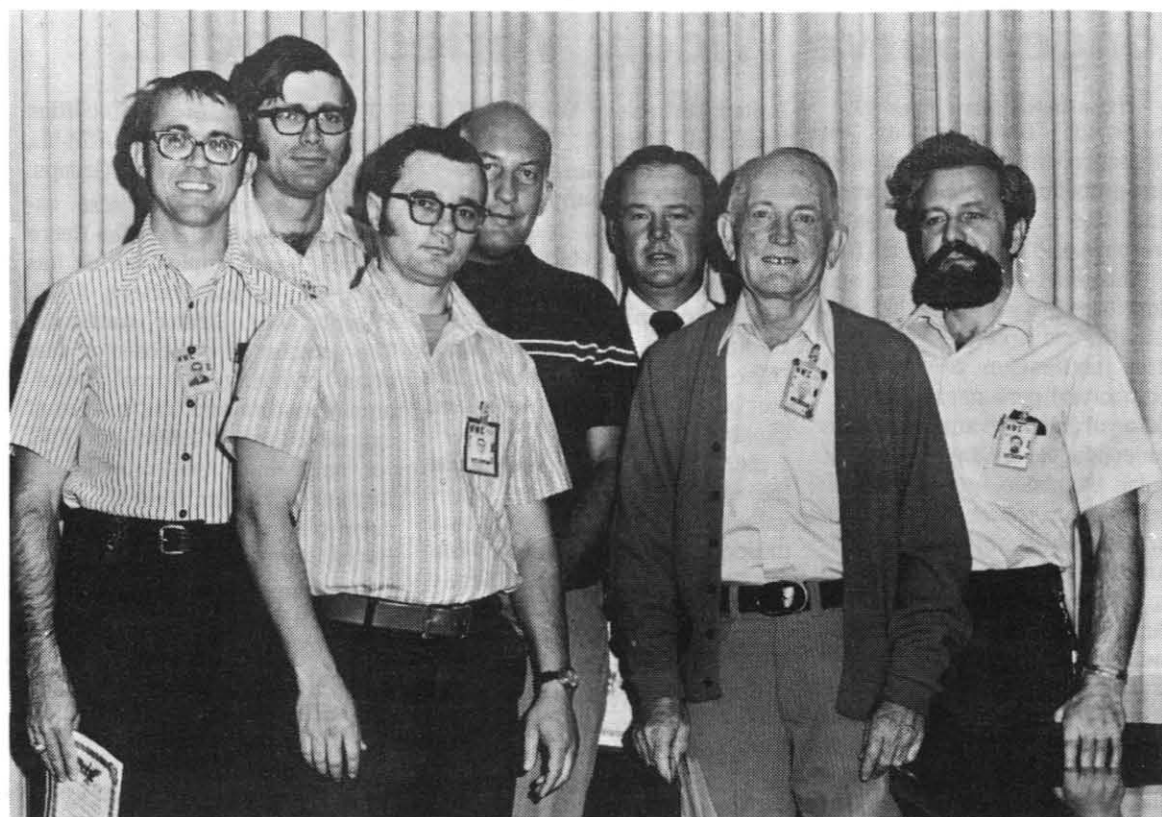
No Affect on Athletics

How would unification affect the athletic program at Burroughs High School? Burroughs High School is a member of the Golden League composed of other desert high schools. Several schools in the Golden League are in unified districts. Unification would not affect membership in the Golden League.

How would unification affect the specialized services and expertise available to Burroughs High School from the Kern High School District? Burroughs High School receives data processing service and research expertise from the Kern High School District. Secondary curriculum expertise is presently available to each department from district personnel at Kern High School District. These services would need to be provided by the new unified district.

Many people feel that they have good schools, so why jeopardize them with a change? A study of 22 newly unified school districts in California, which was conducted for the San Mateo County Board of Education, reveals that newly unified districts identify the best practices and programs in each of the component districts and try to provide these practices and programs to the entire new district. However, the development of a fully articulated, structured sequence of instruction takes time.

All concerned with the new district must be aware that expectations for immediate massive changes are unrealistic, and that a period of two to five years will be required to achieve the kind of program which accurately reflects the goals of the district and unification.



7 RECEIVE PATENT AWARDS—A group of seven employees in the Systems Development Department were the recent recipients of patent awards that were presented by F. A. Chenault, department head. The inventors are (from left) Jerry Reed, William E. Duncan, Richard M. Smith, Robert J. Stedman, Richard G. Moe, Ernest Long and Marko Afendykw. Reed developed an infrared suppressor consisting of an air-cooled contoured plug that can be fitted within the exhaust pipe of a gas turbine engine. An "Orthogonal Line Generator" is the title of Duncan's patent, while Smith came up with an optical matched filter system capable of providing a means of achieving pulse compression for a pulse radar, with an improved range resolution. Stedman's invention, entitled "Video Gate," is a video gate generator for excluding the sensing of any target other than a target inside the gate that is generated for superimposition on a TV monitor. A "Configured Blast Fragmentation Warhead" was Moe's contribution, while Long devised a process for the manufacture of stripline circuit modules. Afendykw teamed up with John M. Boyle (not in photo) on the patent for a "Bistatic Passive Radar."

School Maintenance, Operations Studied

(Editor's note: This summary of operations and maintenance of schools in the local area was prepared by a sub-committee of the Citizens Fact Finding Committee on School Unification. All figures are based on the 1971-72 school year status. Walt Kuzmin served as chairman of the sub-committee, assisted by Cathie Cosgrove, Bob Charlton, Bob Francis, Ray Kapka, Gene White, John Bugay and Kurt Barthel, as members.)

In the area of building operations and maintenance, no significant change in the quality of services is foreseen as a result of unification of schools. Maintenance and operation cost advantages could accrue,

however, by optimizing equipment usage and various labor categories.

The China Lake Elementary School District has 233,250 sq. ft. of refrigerated air conditioned buildings that were constructed to U.S. Dept. of Health, Education and Welfare as well as military fire standards. These buildings are maintained at a cost of \$1.72 per sq. ft.

The Indian Wells Valley Union School District's building space totals 103,672 sq. ft., approximately 20 per cent of which is equipped with refrigerated air conditioning. All buildings were constructed to meet state building and fire laws and are maintained at a cost of \$1.62 per sq. ft.

Burroughs High School has 150,390 sq. ft. of refrigerated air conditioned buildings which meet state building and fire laws. They are maintained at a cost of \$1.52 per sq. ft.

The Rand School District has 2,400 sq. ft. of buildings equipped with evaporative cooling and forced air heating. Building maintenance costs amount to \$3.40 per sq. ft.

School Buses

The number of buses operated during 1971-72 by the various districts included in the school unification plan for this part of east Kern County were: China Lake, 4; Indian Wells Valley, 8; Burroughs High School, 4, and Rand District, 1.

Unification would have no significant effect upon the transportation of students. However, some economies may result as an opportunity occurs for more efficient planning of bus routes by combining students on common routes and rescheduling, without sacrifice to either quality or comfort.

Vehicles Other Than Buses

The number of other vehicles operated by each of the various local school districts in 1971-72

were: China Lake, 12; Indian Wells Valley, 4; Burroughs High School, 6. The Rand District had none.

Unification would have no potential effect upon three of the districts, but the Rand District would benefit by the availability of a large pool of vehicles other than school buses.

Unification presents an opportunity whereby the combining of vehicles into a common pool may yield savings in vehicle purchase costs and maintenance.

Transportation Costs

Total costs per mile for transportation (including salaries) in 1971-72 were:

China Lake Elementary District

(Continued on Page 5)

Open House Set April 25 At Tech Library

The first and what may be one of the few times non-users of the Naval Weapons Center's Technical Library will have a chance to inspect this facility at its new location will occur next Wednesday, April 25.

On that date, there will be an open house from 1:30 to 5:30 p.m. for NWC employees and their families who wish to look over the technical library, which was moved last November from Michelson Laboratory to its present, remodeled quarters off Blandy Ave. at Hussey Rd.

Visitors will have the opportunity to explore the Technical Library largely on their own, aided by signs telling where the various types of periodicals and books that are available can be found in the two-story former barracks building.

Staff members, directed by Snowden LaFon, head of the Technical Information Department's Technical Library Division, will be on hand to answer questions, and light refreshments will be served.

Fees Set for Intramural Sports...

(Continued from Page 1)

no cost to themselves) in which scheduling of the use of various fields would be the main assistance from Special Services.

Special Services will also provide a minimum of maintenance on the ball diamonds at Murray School and at Schoeffel Field, where the low key softball program for men will be scheduled, and also will supply one ball and three bats for each game. From the discussion which took

place at last week's Recreation Council meeting, it is expected that more than 20 men's softball teams will be competing this spring in this less formal, but still fun-filled program.

The possibility of scheduling some men's softball games on the abandoned playing field adjacent to the Technical Information Department's main office building was vehemently opposed by spokesmen for men's softball teams who attended the Recreation Council meeting.

Only one softball diamond will be available for use this season at Schoeffel Field, since time will not permit the completion of work on a second this spring — even though there is adequate room for another.

In regard to the fees to be charged for the participants in women's and girls' softball programs, this was set at \$5 per player (the same amount charged last year).

Because the 1973 intramural athletic program volleyball season is already under way, payment of an entry fee by volleyball teams will not go into effect until next year. At that time, the entry fee for adult volleyball teams will be \$50. In the case of girls' volleyball teams from the Youth Center, the fee will be \$5 per player.

This same \$5 per player fee was agreed upon for girls' flag football in the fall — the same amount that will be charged male civilians who sign up for the combined military-civilian flag football program.

Jerry Caffery asked the Recreation Council to explore the possibility of obtaining insurance coverage for civilian participants in the flag football program, and was told that this will be looked into.

When it came to discussing fees for tennis, or setting an amount to be paid by the China Lake Tennis Club, it was decided that a better approach would be to set a registration fee for tennis clinics and tournaments, with the money collected going into the Special Services fund to offset the cost of trophies that are provided.

The fee for the intramural basketball program was established at \$100 per team in the case of adults, and \$7.50 per boy or girl for those taking part in the

youth basketball program.

Moving on briefly to other matters, it was reported by Cdr. C. D. Brown, chairman of the Recreation Council, that the proposed site for a skeet and trap club has been approved by the Shore Facilities Planning Board. Since funds for its development have been approved, this action clears the way for moving ahead with the project.

At the request of Chief J. E. McMullen, who heads the Enlisted Men's Recreation Committee, the expenditure of \$250 was approved for the purchase of a spare color television set as a stand-by for such times when any of the sets installed in the enlisted men's barracks must be sidelined for repairs.

The status of several Special Services projects was reported to the Recreation Council by Imer, who noted that the long-delayed renovation of the pro shop at the golf course is now scheduled to start in mid-May. In addition, official opening of a publicity room at the Community Center will take place on the morning of April 25, Imer said.

HAPPENINGS

A course in Hatha Yoga will be offered by the Command Administration Department's Special Services Division, beginning on May 1. Breathing, stretching and relaxing will be emphasized. Joan Leipnik, who has been teaching Yoga locally for the past three years, is the instructor.

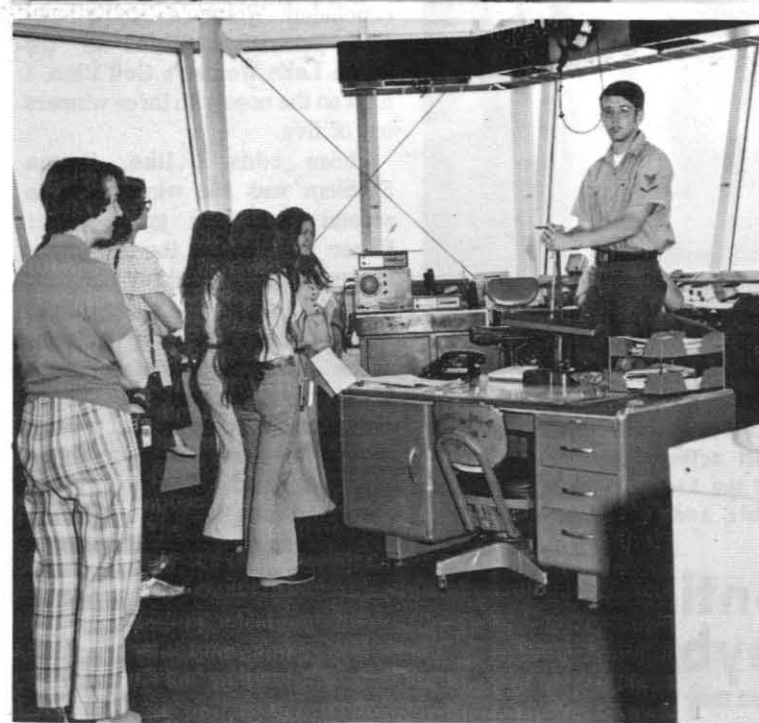
Persons interested in enrolling are asked to call the Community Center, ext. 2010, for more information.

AAUW Meeting

New officers of the China Lake Branch of the American Association of University Women will be elected at the group's next meeting, which is to be held on Tuesday, starting at 7:30 p.m., in the Panamint Room of the Community Center.

Nurses Set Talk

A talk about the functions and services of Rancho Los Amigos Hospital will be presented at Monday night's meeting of the Indian Wells Valley Nurses Club. The meeting, which is open to all interested nurses and doctors, will be held at the Community Center, starting at 7:30 p.m.



School Maintenance, Operation Costs Studied...

(Continued from Page 4)

— 81 cents per mile, with vehicles maintained by district personnel. Indian Wells Valley District — 71 cents per mile, with vehicles maintained by subcontract with a local garage.

Burroughs High — 60 cents per mile with vehicles being maintained in Bakersfield.

Rand District — 45 cents per mile.

The costs of transportation for the China Lake Elementary District includes special trips for small groups and the handicapped that include both IWW and Rand District students at no charge to their districts.

No significant change in school transportation costs are foreseen for the China Lake and IWW School Districts, or at Burroughs High, as a result of unification, but the Rand District would have the use of other vehicles from a large pool for special events.

Unification would have the impact of increased transportation costs for the IWW and Rand Districts, as well as at Burroughs High, primarily resulting from an anticipated increase of salaries to meet the pay schedule of the China Lake Elementary District.

The voter must decide regarding the value of such transportation. China Lake has adequate bus repair facilities that are owned by the school district. Investment of dollars to provide a small amount of expensive equipment (such as hydraulic lifts) would permit the China Lake facility to become as efficient as the one in Bakersfield for the maintenance of all local school buses. The repair facility at

China Lake is large enough to permit maintenance and repair of the largest bus in an enclosed building.

Administrative Services

China Lake Elementary District — The administrative service account (No. 100) amounts to \$63 per student in average daily attendance (ADA). Services consist of a semi-manual accounting system, rental of computers to schedule students and provide research statistics obtained from Kern County.

IWW District — Administrative services expenses amount to \$50 per ADA. There is no access to a computer. All accounting is performed manually.

Burroughs High — Administrative services amount to \$25 per ADA. Services consist of complete automation of payroll, research data statistics and scheduling.

Rand District — Administrative services cost \$48 per ADA. Manual systems are utilized for records and accounting.

Among the potential effects of unification would be the extension of vital research statistics, which provide teachers with needed data to rapidly evaluate the effectiveness of teaching methods and an individual student's progress, to include both the IWW and Rand Districts at a cost possibly close to those for current services provided for Burroughs High. In addition, the automated accounting of payroll and other services could be expanded to include China Lake Elementary, Indian Wells Valley and the Rand School District.

Food Services

China Lake District — All schools were provided with the National School Lunch Program at a cost of \$9 per ADA in 1971-72. The program was operated at no cost to the district during 1972-73.

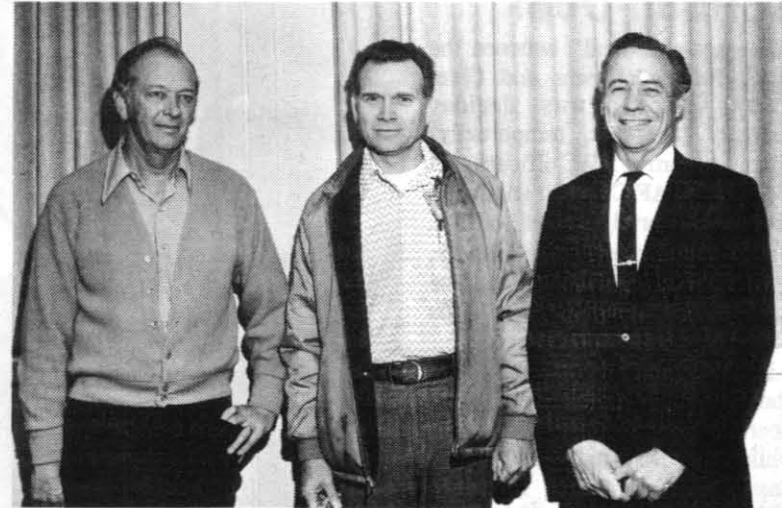
Indian Wells Valley District — Meal service is provided at two schools in the district to National School Lunch Program standards. No school lunch service is available at either Ridgcrest Heights or Inyokern School. The total district budget for food service amounted to \$4 per ADA.

Burroughs High — Limited food service is provided through a contractual arrangement with the China Lake Elementary School District. Burroughs High does not participate in the National School Lunch Program. Space, equipment and student environment are poor.

Rand District — No food service. Included among the potential effects of unification could be the extension of National School Lunch standards to Inyokern and Ridgcrest Heights Schools, as well as to Burroughs High and the Rand District, if the acquisition of needed equipment occurs.

Unification would provide an opportunity to establish adequate food and nutrition service in all local schools. Centralization of the food services program would provide operational economies resulting from volume purchasing, standardization of procedures and better utilization of personnel, equipment and facilities, and a central food production facility.

Federal grants may minimize capital outlay costs to implement the centralization of food services.



RECEIVE 30-YEAR PINS — Three employees of Code 35 were recently presented 30-year Federal Service pins by Leroy Riggs, head of the department. They are (l.-r.): Lawrence Delancy, Ronald Hise and Mangum "Tex" Tyler. Delancy entered the U.S. Army Air Force in 1941 and was later recalled to active duty in 1951. He began his Civil Service career in 1948 as an aeronautical engineer. Hise joined the Bureau of Standards, Washington, D.C., in 1943 and came to NWC in 1946. He is an electronic technician in Code 3562. Tyler served in the U.S. Navy from 1937 to 1946, and then switched to the USMC for two years. He began work in Civil Service in 1948 at the Naval Air Station, Corpus Christi, Tex., and came to NWC in 1952. He is presently an electronic technician in Code 3552.

Library Budgets and Inventories

The library budgets and library inventories of two districts and Burroughs High School are given in the following table:

District	Budget		June 1972 Inventory		No. of books	No. of Mag.
	1971-72	1972-73	Books	Mag.		
China Lake	\$7,679	\$696	\$12,800	\$753	39,845	70
Indian Wells	11,500	—	9,000	—	16,342	28
Burroughs	4,180	700	4,250	850	14,587	76

+ No information available

Rand School District is served by the County Bookmobile.

Pupil Personnel Services Compared

The pupil personnel services offered by the several districts are given in the following table:

District	Psychol-ogists	Coun-selors	Libra-rians	Speech Thera-pist	Reading Special-ist	Mentally Gifted Teacher
China Lake	2	1 ^a	2	1	1.4/5	4 1/2
Indian Wells	1	1 ^b	1/3	c	1	3 0
Rand	d	0	e	c	d	0 0
Burroughs	1/10	5	1	1	0	1 0

^a At Murray

^b At Monroe

^c County public health nurse, part time

^d County as needed

^e Bookmobile



3 DECADES — Leonard Seeley, a consultant in the Weapons Development Department's Aeromechanics Division, was the recent recipient of a 30-year Federal service pin that was presented to him by F. H. Knemeyer, department head. Seeley, a general engineer, has worked at China Lake for 26 years. He is currently involved in the development of the Swimmer Delivery Vehicle. In the past, he has worked on Moray and other underwater projects.