

CLOTA production of 'Inherit the Wind' will open tonight

The Community Light Opera and Theatre Association's production of "Inherit the Wind" opens tonight at the Burroughs High School lecture center at 8:15.

Admission prices are \$4 for adults, \$2 for students and there is a special at-the-door price of \$1 for children under 12 years of age. Repeat performances are scheduled for tomorrow at the same curtain time, and next weekend, April 7 and 8.

This well-known drama is based on the famous 1925 trial of teacher John T. Scopes in Dayton, Tenn., who was brought into court for teaching the theory of evolution in a public high school. National recognition of the trial stemmed from the fame of the attorneys handling the case—William Jennings Bryan, counsel for the prosecution, and Clarence Darrow, counsel for the defense.

The characters in the play are given fictitious names, but the story does follow the progress of the Scopes Trial.

Len Finney portrays the prosecuting attorney, Brady, and Bob Pinney plays his antagonist, the defense counsel, Drummond. Mark Roether has the role of the defendant, and Denise Wehle plays his girl friend.

Others who have supporting roles in this CLOTA production are Diderot Ausseresses, Gerald Baker, Janeal Cobb, Chris Cole, Tim Connaghan, Sue Cutler, Loren Dorell, Kevin Harper, Tina Hill, Bonnie Irvine, Clyde Irvine, Jack and Betty O'Guin, Paul Papalizio, Claudia Sterrett, Don Tilford, Connie White, Gaylen White, Pat White, and Charles Wilcox.

"Inherit the Wind" is directed by Fred Stahlman, with Lee Bartlett as assistant director and A. J. Waid as technical director.

Special menu offered on 'Diners' Night' at COM

The Commissioned Officers' Mess offers "diner's night" once again from 6 to 10 tonight. Featured will be prime rib of beef, surf and turf, broiled lobster, and crab legs and claws.

Starting Monday, there will be nightly entertainment featuring George French on his Hammond Organ.

Reservations are now being accepted for a show featuring Frank Sinatra, Jr., at the COM on April 29.

A chateaubriand buffet dinner will be served. Tickets for both the dinner and the show are \$9.75 per person and reservations can be made by calling 446-2549.



COURTROOM DRAMA TO OPEN—The CLOTA production of "Inherit the Wind" will open a four-performance run tonight at 8:15 at the Burroughs High School lecture center. The play is based upon a famous court case in which a teacher at a high school in Tennessee was brought into court for teaching the theory of evolution in a public high school. In this scene, Chris Cole (as Howard, a student who is convinced about the theory of evolution) taunts Tina Hill (a fellow student named Melinda) by waving a worm in her face and claiming that she and her whole family are descendants of worm-like creatures. —Photo by Ken Austerman

Gilbert & Sullivan operetta to be staged April 10 at Center theater

Opera a la Carte, a touring company based in Los Angeles which specializes in the works of Gilbert and Sullivan, will be at the Naval Weapons Center theater on the evening of Monday, April 10, to present "H.M.S. Pinafore." Curtain time is 7:30.

This operetta, which ranks with "The Mikado" in popularity, is the final program of the 1977-78 season of the Indian Wells Valley Concert Association, and is expected to be a sellout.

Opera a la Carte was founded in the spring of 1970 by Richard Sheldon, a noted Gilbert and Sullivan specialist from England, and is the only professional G&S repertory company in the western part of the United States.

A rapid rise to fame has resulted from the group's authentic presentations and high artistic standards, and its version of "H.M.S. Pinafore" is one of its most popular productions. It was chosen to be presented this year since this is the 100th anniversary of the G&S operetta which was first produced in London in 1878.

Opera a la Carte's production of "Pinafore," with its colorful stage settings and costumes, has been hailed as "polished and spirited," "excellent," "all great fun." It is a fully staged production with two-

piano accompaniment, and features a distinguished cast along with the Opera a la Carte chorus.

This lively nautical romp contains many favorite Gilbert and Sullivan musical numbers, such as "I'm Called Little Buttercup," "When I Was a Lad," "We Sail the Ocean Blue," "I Am the Captain of the Pinafore" and the hilarious trio "Never Mind and Why and Wherefore."

Season ticket holders and advanced sales of tickets for this final program of the IWV Concert Association's 1977-78 season have reduced to around 300 the total number of seats remaining for "H.M.S. Pinafore."

Tickets, priced at \$6 each for general admission, or \$3 for those under 21 years of age, enlisted military personnel and senior citizens 65 years of age and over, can be ordered by calling 375-5600. They also are on sale in Ridgecrest at The Music Man, Medical Arts Pharmacy, the Drummond Medical Center Pharmacy, The Gift Mart, the Grainery and at Lilly's Dress Shop.

Other ticket outlets are the Inyokern Market and the offices of the Trona Argonaut newspaper and the Rand District News and Miner in Johannesburg.

Provided there are some tickets remaining to be sold on the evening of the program, they will be available at the theater box office between the hours of 4:45 and 7:15 on April 10.

Desert Dancers will host spring festival at Community Center

The China Lake Desert Dancers are hosting their annual spring festival tomorrow at the NWC Community Center.

Entitled "Lech Lamidbar" from an Israeli folksong which means "let's go to the desert," the celebration will offer two events — free afternoon folk dancing from 2 to 5 o'clock, and an evening program of folk dance performances by well-known folk dance groups from 8 to 11:30 p.m. for an admission of \$2.50 per person.

The Polski Iskry will perform a set of three or four Polish dances and the Royal Scottish Country Dance Society of Los Angeles will entertain by presenting several Scottish folk routines.

Dance music will be provided by Pecurka, an international folk dance band, which will play Serbo-Croatian, Hungarian, Romanian, Polish, Scandinavian, German and Russian Numbers.

All past members of the Desert Dancers are welcome to attend. Further information may be obtained by calling Sharon Clendenin at 375-4203.

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

Regular starting time—7:30 p.m.
Program subject to change without notice.
For further information call NWC ext. 2259

FRIDAY 31 MARCH

"THE SENTINEL" (92 Min.)
Cristina Raines, Chris Sarandon
(Horror Drama) Sin and Satan return and the church and the devil battle for possession of the will of a young model played by Cristina Raines. Soon after she moves into an apartment with a spectacular view, she is beset by strange neighbors, strange night sounds, nightmares, stabbing headaches, and fainting spells. (R)

SATURDAY 1 APRIL
"THE AMAZING MR. BLUNDEN" (87 Min.)
Eric Hilly, Reg Lye
1:30 p.m. Matinee

(Comedy) Two children, James and Lucy, are visited by a mysterious old man, Mr. Blunden, around Christmas time in 1918. He hints about being a ghost and tells the children there is no reason to be frightened of ghosts. He offers their mother a job as caretaker of an empty half-burned-down mansion which is believed to be haunted. (G)

"JAWS" (113 Min.)
Robert Shaw, Roy Scheider
(Adventure) A summer resort is seized by fear when a white shark is attracted to swimmers. Beaches are closed and economic strangulation threatens the town, until three desperate men—a fanatical fisherman, a mild-mannered police chief, and a shark expert—set forth to kill the shark. (PG)

SUNDAY 2 APRIL
"RECORD CITY" (94 Min.)
Ed Begley, Jr., Ruth Buzzi

(Comedy) This film depicts the happenings in the lives of a group of disassociated characters who hang around outside a large record mart in a metropolitan area. The group includes bums, homosexuals, and hookers. Each character faces a mini-crisis. (PG)

WEDNESDAY, THURSDAY 5, 6 APRIL
"THE GOODBYE GIRL" (110 Min.)
Richard Dreyfuss, Marsha Mason

(Comedy) Ex-dancer Marsha Mason and daughter, Quinn Cummings, age 10, are ready to leave New York City for California to join Mason's actor-lover when they receive a goodbye note from him. The ex-lover has subleased the apartment to actor Richard Dreyfuss, who agrees to share the apartment with the mother and daughter. The daughter takes a liking to Dreyfuss, but when the mother finally falls in love with him, he is offered a movie contract which would necessitate his leaving the city. (PG)

FRIDAY 7 APRIL
"ROCKY" (119 Min.)
Sylvester Stallone, Talia Shire

(Adventure-Drama) Stallone is the title character in this story of a local clubhouse prizefighter who gets the chance of a lifetime at the world heavyweight title. Along the way, he finds love and self-respect. (PG)

SATURDAY 8 APRIL
"SCALAWAG" (93 Min.)
Kirk Douglas, Mark Lester
1:30 p.m. Matinee

(Action Comedy) A peg-legged pirate chief and his band of cutthroats rob another pirate band, disposing of the crew and burying the treasure. A talkative parrot discloses the gold's burial place, and an all-out race follows with every man for himself. (G)

"VIVA Knievel" (104 Min.)
Evel Knievel, Gene Kelly
(Action Drama) Evel Knievel is offered a lucrative contract for an exhibition in Mexico by fellow cyclist Marjoe Gortner. Unknown to him, the contract is a cover for a plot to kill him during the jump and to smuggle heroin from Mexico to the U.S. Kelly is Knievel's mechanic and sidekick. (PG)

U.S. Government Printing Office: 1978 - No. 119

From: _____

To: _____

PLACE
STAMP
HERE

Tech Director visits units of 7th Fleet

Robert M. Hillyer, NWC Technical Director, recently traveled to the Seventh Fleet to observe modern carrier operations and to review the performance of tactical air weapons and weapons systems that are being used by the Fleet.

Leonard Gulick, Naval Sciences Advisor Program Coordinator in the Fleet Support Office, accompanied the Technical Director. Hillyer also discussed with operational personnel the deficiencies of present systems and the needs of the tactical air Fleet operators in today's and future scenarios.

The visit to the Seventh Fleet was timed to take advantage of the presence of Jack Russell, NSAP, Science Advisor to Vice Admiral Robert B. Baldwin, Commander of the Seventh Fleet.

On Year-Long Assignment

Russell, normally head of the Electronics Warfare Department at China Lake, has been on a year-long assignment since last June. He has developed an excellent rapport with the Seventh Fleet's staffs and with the ships' companies. Russell was thus able to coordinate the briefings for the NWC Technical Director and maximize the benefit of the trip.

Hillyer and Gulick traveled to Yokosuka, Japan, where they met Russell. There they were briefed on current NSAP projects in the Seventh Fleet, Air Warfare, Anti-Submarine Warfare, and Operation Team spirit. They went aboard the USS Warden, under the command of Capt. John Baumgardner to discuss Air Warfare and Fleet Air Defense.

General discussions were next held with Vice Admiral Baldwin and his staff aboard his flagship, the USS Oklahoma City.

Combined Exercise Observed

Hillyer, Gulick, and Russell then traveled to the USS Midway to observe activities that were a part of Operation Team Spirit, a combined exercise that involved the United Nations' military forces. Hillyer met with Capt. T. L. Brown, III, the Commanding Officer of the USS Midway, and a number of members of the ship's company and Air Wing.

Discussions were also held with Rear Admiral William A. Gureck, Commander, Carrier Group Seven, and his staff. Hillyer offered particular thanks to the Cdr. Dale Iversen, Strike Operations Officer of COMCARGRU 7, and to Cdr. Griff Herring, the ship's Weapons Officer.

The party then traveled to the USS Kitty Hawk currently under the command of Capt. E. E. Hogan, and the flagship of Rear Admiral Ernest E. Tissot, Jr., CTF77.

(Continued on Page 3)



GAS PRESSURE BOOSTED—In the safety of the control room, Gary Smith, shown at the control panel of bench-scale pyrolysis gas purification and polymerization system, prepares to boost the pressure of purified gases before they go into the polymerizer.



nwc rocketeer

Naval Weapons Center
China Lake
California

March 31, 1978

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Conversion of trash to gasoline holds promise of alleviating 2 key problems

Today's quick-service, packaged product, throw-away society, which is gradually being inundated by debris that is piling up in gigantic land-fill dumps, has almost at its fingertips a partial solution to the nation's need for increased gasoline, as well as a solution to trash disposal.

The capability of converting cellulosic organic waste material into high value liquids, such as gasoline, diesel fuel, fuel oils and premium quality lubricating oils is more than an alchemist's dream, according to James Diebold, a chemical engineer in the Ordnance Systems Department's Applied Research and Analysis Branch.

First Gasoline Produced

In fact, a bench-scale pyrolysis gas purification and polymerization system has been completed, and the first polymer gasoline produced from municipal solid waste feedstock was made recently at the Naval Weapons Center.

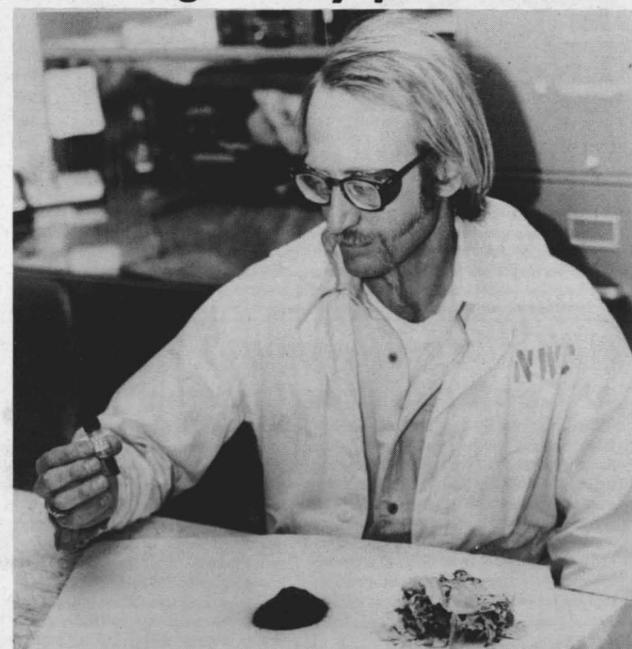
The investigative work in this field was started here 3½ years ago. Utilizing Department of Defense Advanced Research Project Agency funds, a study was completed which indicated that trash could be burned for heat, converted into methanol (a substitute for gasoline), or into gasoline. Interagency agreements with the Environmental Protection Agency (EPA) have provided funding for the development of the gasoline process.

Economics Are Promising

During this preliminary investigation, it also was determined that the economics of converting trash to gasoline are promising.

The first milestone in this endeavor was the development of a method of converting municipal trash by means of pyrolysis into the gases ethylene and propylene in a quantity sufficient to make the process worthwhile technically and economically feasible, Diebold noted. This required an advance in the state-of-the-art pyrolysis.

The overall process of converting organic wastes to gasoline involves the pyrolysis of the wastes to gases containing large amounts of olefins (ethylene and propylene), followed by compression and purification of the olefins. The third step in this process is polymerization of the



GASOLINE PRODUCED—Jim Diebold holds a vial of gasoline made from trash which is the product of a bench-scale pyrolysis, gas purification, and polymerization system developed here. The solid waste feed stock (the fine powder seen in center) started out originally as scraps of paper, plastic, feathers and other cellulosic organic waste material (at right). —Photos by Ron Allen

ethylene and propylene to form larger gasoline molecules. Through this process, oxygen is removed from the cellulosic trash to produce a gasoline consisting of hydrocarbons. Most of the rejected oxygen is in the form of carbon dioxide.

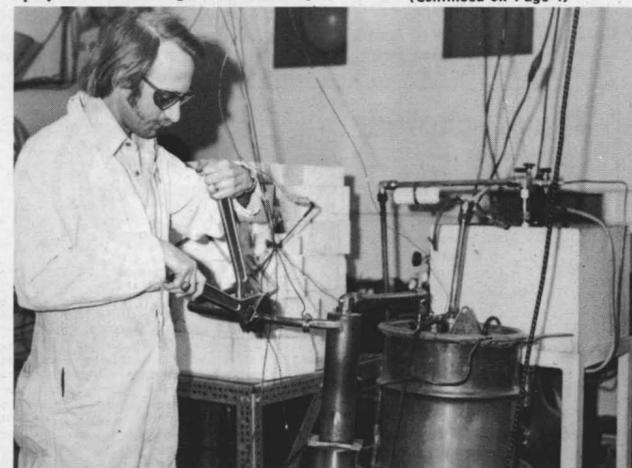
How this is accomplished, Diebold explained, is to continuously feed a finely ground, free-flowing powder form of organic waste to a point in a pipeline where a carrier gas stream and steam blow it through a red hot tube. The extreme heat causes the feed material to decompose and form gases in a tenth of a second or less.

There is some char produced which is centrifuged out in a cyclone separator, allowing the gases to pass through. A water spray cools down the gases from a temperature of about 400 degrees Fahrenheit, as they emerge from the cyclone, down to about 185 degrees. Further cooling then reduces the temperature of the gases to 75 degrees F.

The whole process of pyrolysis—starting from the time a molecule of waste is pyrolyzed to when it is in a cooled gaseous form—takes between 5 and 10 sec. The gas (now at a temperature of 75 degrees F.) is compressed to a pressure above 450 pounds per square inch and stored in a spherical pressurized container.

The next step, Diebold said, is to purify the gases in order to concentrate the ethylene and propylene and then after further compression to run these gases into

(Continued on Page 4)



ROUTINE MAINTENANCE—Tubing in the pyrolysis system is disconnected by Jim Diebold and cleaned out after a test run to insure continued smooth operation.



SAILORS HAVE MORE FUN—Michael Gallup, now in his seventh season with Opera a la Carte, will appear as the likable rascal, Dick Deadeye, an able seaman, in the Gilbert and Sullivan operetta "H.M.S. Pinafore" on April 10 at the Naval Weapons Center theater. Tickets are on sale now for this final program of the Indian Wells Valley Concert Association's 1977-78 season.



DECORATION COMMITTEE AT WORK—In preparation for the Spring Fling, which is to be held on the evening of Saturday, April 8, at the COM by the Women's Auxiliary of the Commissioned Officers' Mess, the decoration committee is hard at work. Its members, who are shown painting cardboard flowers and decorating a trellis are (seated, l.-r.) Sharon Zabel, Vicky Crume and Nancy Branch and (standing) Joan Giuliani (at left) and Elaine Adams. Tickets for this semi-formal dinner-dance are priced at \$15 per couple, and can be ordered by calling Jeanne Davis, at 444-2288, or Gunilla Giegerich, at 375-5970. A social hour starting at 7 will precede dinner at 8, and dancing will follow for the remainder of the evening.

NWC library responds to needs of Centerites for information

Next week (April 2-8) is National Library Week, and the NWC's new librarian, Mike Santone, has released some interesting figures on the Center's library in connection with that observance.

The local library contains 38,000 books, 678 records and subscribes to 110 magazines and 18 newspapers. In addition, if a person is seeking a book, poem, or even a recipe, that isn't available here, the item will be

sought out through other libraries in California and other states, Santone said.

"We have had quite good results with this program. Sometimes you get it quickly, or it may take a little time," he said.

The library also has a collection of genealogy books to help Centerites find their "roots." And, there is an excellent inventory of books about the desert.

Besides the inter-library loan program to obtain materials not available here, the Center library will come up with quick answers to perplexing questions by telephone through its reference service, Santone pointed out.

Centerites studying for a college degree or doing graduate work will find the library not only an excellent source of material but a good place to study as well, he said.

Course in rapid reading to begin on Monday night

The first session of a Cerro Coso Community College one-unit course in rapid and comprehensive reading will be held on Monday, April 3, from 6:30 to 8:30 p.m. in Rm. 212 of the Training Center.

Enrollment in the class, which is to be taught by Joann Haight, a personnel management specialist in the NWC Personnel Department, will take place at the first session of the course.

Time tests will be presented at the beginning and end of the class to determine individual improvements in reading speed and comprehension.

Promotional Opportunities

Unless otherwise specified in the ad, applications for positions listed in this column will be accepted from current NWC employees and should be filed with the person named in the ad. All others desiring employment with the Naval Weapons Center may contact the Employment-Wage and Classification Division, Code 092, Ext. 2069. Ads will run for one week and will close at 4:30 p.m. on the Friday following their appearance in this column, unless a later date is specified in the ad. Employees whose work history has not been brought up to date within the last six months are encouraged to file a Form 171 or 172 in their personnel jacket. Information concerning the Merit Promotion Program and the evaluation methods used in these promotional opportunities may be obtained from your Personnel Management Advisor (Code 096 or 097). Advertising positions in the Promotional Opportunities column does not preclude the use of alternate recruiting sources in filling these positions. As part of the rating process, a supervisor appraisal will be sent to the current supervisor and the most recent previous supervisor of those applicants rated as basically qualified. The Naval Weapons Center is an equal opportunity employer and selection shall be made without discrimination for any nonmerit reason. The minimum qualification requirements for all GS positions are defined in CSC Handbook X-118, while those for all WG, WL and WS positions are defined in CSC Handbook X-118C.

Mechanical Engineer, GS-830-9/11, PD No. 783202, Code 3267 — (Promotion potential to GS-12). This position is located in the Terrain Denial Weapons Branch, Conventional Weapons Division, Ordnance Systems Department. The incumbent is assigned to a team responsible for the development of dispenser equipment for air-delivered land mines. Duties include the design and development of mechanical and electro-mechanical components, including literature search, conceptual layout on drawing boards, production engineering, and cost-effectiveness studies. Conducts feasibility studies on novel design concepts, arranges for fabrication and experimental testing, and analyzes test data. Prepares project schedules, development plans, and budget estimates. Job Relevant Criteria: Knowledge of electronics interface with mechanical design; skill in interpersonal relationships (reconciling differences, fostering cooperation, etc.); demonstrated ability to plan and coordinate long-range engineering tasks; ability to communicate correctly and concisely, both orally and in writing.

Physicist, GS-1310/Mechanical Engineer, GS-830, GS-9/11/12, PD No. 7545107-1/ PD No. 7832015, Code 3262 — (Interdisciplinary position.) This position is located in the Explosives Technology Branch, Conventional Weapons Division, Ordnance Systems Department. Incumbent carries out assignments to determine possible applications of explosive materials to branch projects. Evaluates effectiveness of explosive materials and components in support of a variety of Navy weapon systems, using both new and existing methods. Compiles and reduces test data and participates in its analysis. Maintains liaison with other personnel both on and off Center. Job Relevant Criteria: Knowledge of explosive materials and components; knowledge of specialized instrumentation relevant to the position (high speed photography, flash X-ray, submicrosecond electronic recording equipment); knowledge of safety requirements in the handling of explosives.

Aerospace Engineer, GS-861-9/11/12, PD No. 7832018, Code 3246 — Airbreathing Propulsion Branch, Advanced Technology Section, Ordnance Systems Department. The incumbent performs work relating to the air inlet components of airbreathing missile propulsion systems. Duties include determining performance and physical constraints, performing and/or directing in-house or contractor personnel in the preparation of drawings, fabrication of models, wind tunnel testing, data reduction, and preparation of reports. Job Relevant Criteria: Knowledge of aerodynamics and fluid flows; knowledge of computer programming and the techniques for using computers in analysis; skill in interpersonal relationships (fostering cooperation, reconciling differences, getting work done through others); ability to communicate correctly and concisely, both orally and in writing. Promotion potential: GS-12. Applications will be accepted from status eligibles.

File applications for the above with Mary Morrison, Bldg. 34, Rm. 216, Ph. 2925.

Safety Specialist, GS-081-7/9, PD No. 7824000 or 7824001, Code 245 — This position is that of safety specialist located in the Explosives and Laboratory Safety Division of the Safety and Security Department. The GS-7 level is a trainee position. At the GS-9 level, the incumbent is responsible for developing the safety program in his area. He will assist managers by conducting safety surveys of their respective shops in order to eliminate hazardous conditions, recommend the necessary corrective action, and determine the need for new program development. He will prepare safety education material for the organizations he serves. Job Relevant Criteria: Knowledge of safety principles; knowledge of the techniques of accident prevention; knowledge in the area of chemistry or physics acquired through academic course work; ability to write clear and concise reports. Promotion potential: GS-12. Previous applicants must reapply. Applications will be accepted from both NWC employees and status eligibles.

File applications for the above with Charlotte Sielewski, Bldg. 34, Rm. 204, Ph. 3118.

Electronics Engineer, GS-851-12, PD No. 7455134-1E, Code 3444 — Applications will be accepted from both NWC employees and status eligibles. Position is located in the Engineering Department, Fleet Engineering Division, Integrated Logistic Support Branch. Position is that of test systems engineering section leader. Incumbent is responsible for the generation and organization of test functions required to support NWC and the Navy. He will perform engineering analysis of new Automatic Test Equipment (ATE) concepts such as Systems Test Equipment Program (STEP). He will prepare documentation to reduce the complexity of complying to NAVAIR directives to be ATE compatible and will assist program electronic design personnel by applying his design background in implementation of compatibility designs. Incumbent will develop and present new programs required to improve the Navy's overall test technology to reduce tests resulting in false rejects, provide rapid processing and retrieval of test data, create flexibility for introducing engineering changes to existing systems. Will provide NWC programs complete test systems engineering services for electronic systems. Job Relevant Criteria: Experience in electronic design and analysis, test engineering. Thorough understanding of circuit design, test and maintainability and the interrelation of these functions.

File applications for above with Janet Thomas, Bldg. 34, Rm. 204, Ph. 2925.

Secretary (Stenography), GS-318-5/6/7, PD No. 7700001, Code 00 — This position is located in the Office of the Commander, Naval Weapons Center. The incumbent is the personal secretary/assistant to the Commander, Naval Weapons Center. The incumbent is responsible for the effective operations of the Commander's office and the management of this time and schedule; performs such duties as maintaining all files, typing letters, memoranda; opening, screening and routing mail; handling and controlling materials; screening publications for items of interest; answering and screening phone calls; greeting and assisting visitors; screening classified and un-

classified messages; answering the more routine correspondence for the Commander; personnel and budget duties as needed. Job Relevant Criteria: Knowledge of Center organization and policies; reliability and dependability; ability to deal tactfully with all types and levels of people; ability to take shorthand and to type efficiently and accurately; ability to handle pressure; willingness to work outside of the normal working hours on an as needed basis; knowledge of Navy administrative policies and procedures. Promotion Potential to GS-8. The person selected for this vacancy will be reassigned at their current grade level. Subsequent promotions up to the GS-8 level, will be based on demonstrated performance and meeting the appropriate qualification requirements. For this reason, candidates must currently be at the GS-5 level or above in order to apply.

File applications for the above with Cathy Rivera, Bldg. 34, Rm. 206, Ph. 2676.

Electronics Engineer, GS-855-11/12, PD No. 7555110, Code 3956 — This position is located in the Monopulse Design and Evaluation Branch, RF Division of the Weapons Department. The incumbent performs missile guidance system analyses, evaluation, hardware test and consultation primarily on the Sparrow Advanced Monopulse Seeker system. Job Relevant Criteria: Experience with microprocessors and RF signal processing both from the standpoint of theoretical analysis and hardware testing; familiarity with techniques such as Kalman filtering and Fast Fourier Transforms, etc.

File applications with Cathy Rivera, Bldg. 34, Rm. 206, Ph. 2676.

Sheetmetal Mechanic, WG-3864-JD No. 365N, Code 2441 — Promotion potential to WG-10. Incumbent normally works with sheetmetal of 10 to 26 gauges in thickness. Lays out, fabricates, assembles and installs and repairs objects and equipment. Works from blueprints, sketches, and oral instructions. Checks blueprints against actual measurements at the job site. Lays out work, selects materials, scribes lay-out lines and points for punching, drilling, shearing, notching, and breaking. Fabricates assemblies, and installs boxes, ventilation ducts, gutter, flashing, cornices, cabinets, doors, heating and cooling units. Job Relevant Criteria: Knowledge of equipment; instructions, specifications, blueprints; layout and pattern development; hand and power tools; materials; ability to do the work without more than normal supervision.

File applications for the above with Marge Stanton, Bldg. 34, Rm. 216, Ph. 2922.

Ordnance Equipment Mechanic, Helper, WG-4441-5, Code 621 — This position is located in the Quality Assurance Division of the Range Department. The incumbent will be trained to assist in the assembly of special ordnance and test equipment used in the experimental and developmental evaluation of various pieces of ordnance and related ordnance items. Job Relevant Criteria: Reliability and dependability; shop aptitude and interest; safety and dexterity; ability to work as a member of the team; ability to follow directions. Promotion potential to the WG-8 level.

File applications for the above with Jan Niebertlein, Bldg. 34, Rm. 216, Ph. 2922.

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DIVINE SERVICES

PROTESTANT 1015

Sunday Worship Service 0900

Sunday School — All Ages 0900

Sunday School Classes are held in Chapel Annexes 1, 2, 4, (Dorms 5, 6, 8) located opposite the former Center Restaurant.

Communion Service first Sunday of the Month.

ECUMENICAL 1130

Wednesday Noon Bible Study 0630

Thursday Men's Prayer Breakfast 0630

ROMAN CATHOLIC

MASS

Saturday 1700 fullfills Sunday obligation

Sunday 0700 0830 1130

Nursery, Chapel Annex 1 0815-1245

Daily except Saturday, 1135, Blessed Sacrament Chapel

CONFESSIONS 1115 to 1130

Daily 1615 to 1645

Saturday 0800 to 0825

RELIGIOUS EDUCATION CLASSES

Sunday First thru 6th grades 1015

Sunday Pre-school & kindergarten 1115

Sunday seventh & eighth (Junior High) 1900

Above classes are held in the Chapel Annexes across from the former Center Restaurant.

Sunday evening Ninth thru 12th grades As announced "In Home" Discussion Groups Youth Rallies

Contact Chaplain's Office for specifics.

JEWISH SERVICES

EAST WING—ALL FAITH CHAPEL

Sabbath Services every Friday 1930

UNITARIANS

CHAPEL ANNEX 95

Sunday Services—(Sept.-May) 1930

Youth soccer season to begin, signups for baseball continue

The NWC Youth Soccer League kicks off season play tomorrow at 9 a.m. on Davidove Field.

The first teams to square off will be the Cosmos and the Atoms, followed by the Apollos and the Thunderbirds at 10:30 and, finally, the Spirits will face the Cobras at 11:30.

Each Saturday through May 20 will see three more games played.

There are three teams composed of players in school grades five through seven and five teams with youngsters in the 1st through 4th grades. All of these teams still have a few openings.

Youngsters interested should contact the Youth Center on NWC ext. 2909.

Pony League
Pony League baseball registration and tryouts will close tomorrow morning with final applications being accepted between 9 and noon at the Pony League Field on the Center.

Teams will be formed following tomorrow's registration period.

Players who registered at the Kerr-McGee Field in Ridgecrest and desire to play on the Center should also report to the Pony Field across the street from the bowling alley on King Street tomorrow between 9 a.m. and noon or contact the league's player agent, Dan Vander Werf, by calling either NWC ext. 3445 or 446-3641.

The Pony League is open to players who are 13 and 14 years old. The league expects to form five or six teams.

Little League
The China Lake Little League will hold its final tryouts for the Minor and Farm Divisions tomorrow from 9 to 11 a.m. at Diamond No. 4, across the street from the NWC Credit Union.

Boys and girls who are or will be 8 through 12 years old on July 31 are eligible for Little League play. They are urged to sign up and try out at this time, if they have not already done so.

Proof of age and a donation \$12 for a single child and \$18 for a family is requested at the time of sign-up.

Burros nipped...

(Continued from Page 6)
walk was then issued to load the bases in the hope of setting up a forced-out play at home plate.

This strategy backfired, however, when Gary Luster came to bat and tapped a round ball between short stop and third base to drive in the game-winning run for Saugus.

Gaunt, who pitched the entire game for Burroughs, gave up just five hits and was tagged for the loss. Skophammer, the winning pitcher for Saugus, limited the Burros to four hits—all singles except for a double by Randy Radcliff.

Next league action for the Burros will be this afternoon at 3:30 against the Canyon High Cowboys of Newhall, and another league tilt is coming up on Tuesday afternoon at Quartz Hill High School.

Edwards AFB wins...

(Continued from Page 6)
Lake team, where he controlled a pass and successfully booted the ball into the net for what turned out to be the game-winning goal.

Another match between these same two teams has been scheduled on Saturday, April 8, at Edwards AFB. Both teams are waiting for the Lancaster Soccer Club to become well enough organized to join them in competition.

Premier League...

(Continued from Page 6)
the 263 logged by Vander Houwen. Other Premier League bowlers with single game scores of more than 220 were: Jim Dillon (244), Ernie Lanterman (233), Roby and Allen Smith (224), and George Wilmont (221).

Employee in the spotlight

Helping people to assess their abilities, develop their skills and advance their careers is a job that life as well as training has prepared this week's Employee in the Spotlight to perform.

Terry Mitchell, an Employee Development Specialist in the Personnel Department's Personnel and Organization Development Division, can give personal testimony to the fact that a successful career results from good counsel, careful planning and a good measure of perseverance.

In Terry's view, the ideal job so matches a person's abilities with their desires that the job doesn't really seem like work at all. "I can't see how anyone can put in eight hours and feel that the only thing they have accomplished is a day's work," Terry says. To be truly satisfying, a job must be innovative, and people must be free to apply their own ideas to what they are doing, and, she says, that's the kind of job she has at the Center.

When Terry was assigned to the NWC Training Center about two years ago, "The Navy and I made a match — it is utilizing my skills, and I like what I'm doing," she explains.

Important Lesson Learned

But, it wasn't always so for Terry; she learned the hard way that what people think they want to do may not be the best goal to set.

Terry, who was born in Washington State but was raised in northern California, graduated with a BS in education in 1967 from Arizona State University (ASU) after her family moved to Chandler — near Phoenix — when she was 16.

She loves English literature and taught English for awhile; but she says that she discovered that high school students in Casa Grande, Ariz., "weren't enamored with Shakespeare."

"During that year, I realized what little guidance I had had in deciding what I wanted to do."

From her own experience and based upon

VX-5 enlisted personnel advanced in rate

Advancements in rate that were effective recently have been earned by seven enlisted personnel assigned to duty with Air Test and Evaluation Squadron Five (VX-5).

Those who have been advanced in rate, their new rating, and the divisions or shops to which they are assigned, are as follows:



Terry Mitchell

what she had observed as a high school teacher, Terry decided that there was a need for good educational counselors. So, she went back to school.

However, she says that when she received her MA in educational counseling from ASU in 1970, she discovered that she once again didn't have the benefit of good career counseling.

"There was a surplus of both teachers and school counselors," she says, so she had to take a clerical job — first in Arizona and, then, here at the Center in 1972.

At NWC, Terry became active in equal employment and affirmative action programs. She was determined to help others who, like her, had become frustrated because their skills were not being utilized.

With the Center's emphasis on equal opportunity, Terry received a lot of encouragement, and she soon found herself an Equal Employment Opportunity (EEO) counselor and on the EEO Committee.

"This gave me the opportunity to come in contact with a lot of people on the Center. They became familiar with what I could do

and this developed credibility concerning my skills," she says.

With the credibility came more responsibility, greater opportunity and participation in the Management Intern Program. Following her six months as an intern, Terry took a job in the Office of Finance and Management and, then, received her MS in public administration from USC under the NWC-sponsored academic program. Next, she got her present job, which she thoroughly enjoys.

At present, Terry is involved in the Leadership Assessment and Development Program and is a "people motivator," helping them to recognize their strengths and emphasize them.

Greatest Challenge

Her greatest challenge, she says, comes from managers who have become set in their ways of dealing with subordinates and view the NWC Leadership Assessment and Development Program with a cynical eye.

"They wonder what the program is all about and have doubts about its effectiveness," she says; but she adds that they soon see the program's value when they become involved as assessors during assessment exercises.

In these exercises, supervisors evaluate the managerial skills of persons who are considered as possessing leadership potential and are confronted with simulated management situations during training.

Because of her diverse interests, Terry says that she often finds it difficult to say "No" when offered responsibility, even off the job. She describes herself as a "feminist," and she is a member of the Federally Employed Women and the National Organization for Women. She has served on the Indian Wells Valley United Way board of directors.

However, it's not "all work and no play" for Terry. She is an avid reader, especially articles and books on psychology, and is into physical fitness.

Physical Fitness Advocate

"You can't be at China Lake very long without becoming involved in the attitude towards physical fitness that pervades the base," she says. So, she plays tennis and jogs and makes it to the "top of 'B' Mountain every so often."

For the past three years, Terry has also been folk dancing, and more recently, belly dancing, which she says she only performs for "close friends and relatives."

Terry, who is a member of the Desert Folk Dancers, says that folk dancers are a dedicated lot, sometimes dancing into the small hours of the morning during folk dance festivals.

However, where in group folk dancing, there is a set routine, belly dancing is more free expression and more an expression of the music, according to Terry.

"It is very individual; you can do your own thing," she says, "And, it's good exercise."

Class in Developing Organizational Commitment slated

A Training Center course in "Developing Organizational Commitment" originally scheduled for March 15 and 16 has been postponed until April 27 and 28.

Taught by Lynn Lacey and Jerry Zaharias, the course is a workshop devoted to developing commitment to the organization through three elements.

These elements are common vision, opportunities and activities within the framework of the organization's missions and goals, and making employees feel stronger and more in control of their own collective and individual destinies.

The course is for supervisors and managers, but others may attend on a space-available basis. NWC training and authorization forms for this course should reach Code 094 via proper department channels by April 14.

—Photo by Ron Allen

New books listed at NWC library

A complete list of new books is available in the NWC library. Library hours are: Monday thru Friday: 1-9 p.m.; Saturday & Sunday: 12-6 p.m.

Centerites are reminded that all employees or military personnel, regardless of their place of residence, are welcome to use the NWC library.

FICTION

John Boyd—The Girl With the Jade Green Eyes.

Robert P. Davis—Cat Five.

Allen Drury—Return to Thebes.

Ellen Violett—Double Take.

Doama Winston — The Adventuress.

NON-FICTION

Abraham J. Briloff—More Debts Than Credits: The Burnt Investor's Guide to Financial Statements.

David Dubinsky—A Life With Labor.

Michele Evans—Fearless Cooking for Men.

Tim F. LaHaye—The Ark on Ararat.

Edward Sheehan—The Arabs, Israelis, and Kissinger.

The Rocketeer

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News Stories Tuesday, 4:30 p.m.

Photographs Tuesday, 11:30 a.m.

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Phones 3354, 3355, 2347



Recreation Round-up

Plans for softball season to be aired Mon. through Thurs.

Plans for the upcoming China Lake Intramural League softball season will be discussed during meetings that will be held on Monday, Tuesday, Wednesday and Thursday, starting at 5 p.m., at the Community Center.

Teams that have been formed to compete in each of the four divisions of the league are asked to send representatives to these meetings, during which final details will be ironed out.

Purpose of next week's meetings is to finalize the number of teams in each division of the league, and to decide on the opening date for the season which is now tentatively slated to start on May 1.

The schedule for these meetings is as follows: Monday, slow pitch division; Tuesday, fast pitch division; Wednesday, women's division, and Thursday, recreation division.

Tennis Instruction Offered

Registration is now being taken at the Center gym for a new series of lessons in tennis that will begin on Tuesday.

Basic strokes and elementary principles of the game will be taught by Fred Hagist for the benefit of beginners and intermediate players.

The instruction will continue for six weeks and is scheduled on Tuesdays and Thursdays from 10 to 11 a.m. and also from 5 to 6 p.m. In addition, there will be a class for beginners only which will be held on Wednesdays from 5 to 6 p.m.

The fee for this one-day-per-week beginners only class is \$7, while the cost of the twice-weekly tennis lessons is \$14 for the six weeks that the classes are in session.

Women Bowlers Sought

Women bowlers interested in participating in a handicap bowling league that will compete on Thursdays, from 9 to 11 a.m. at Hall Memorial Lanes, are invited to register at the bowling alley prior to the start of summer league play on Thursday, April 13.

The league now has eight teams but is hoping to get enough new members to form two more teams. League play will continue through the month of August.

Sidewinders' lead in Premier League slashed to 3 1/2 games

The Raytheon Sidewinders' lead in the Premier Bowling League was cut to 3 1/2 games as the result of losing two out of three games Monday night to the sixth place Best Realty squad.

At the same time, Fisher Plastering's three-game sweep over King Max keglers enabled Fishers' to pick up two games on the league leaders.

Battling for third place—being separated by just a single game—are the Saddleback Sales and Elks Lodge teams.

High team game on Monday night was rolled by the Best Realty keglers, who posted a 982, while high team series for the evening was the 2,837 rolled by the Pollock Construction team.

High individual series honors were garnered by Earle Roby, who turned in a 626. Others over the 600 series mark and their totals were: Dave Vander Houwen (622), and Jim Wright, 616.

High individual game for the night was

(Continued on Page 7)



ADMIRAL'S CUP VOLLEYBALL ACTION—Just one 3-game match—that between NWC South and VX-5—was played during last week's Admiral's Cup competition in volleyball. It decided the championship, however, since NWC North was unable to form a team and consequently forfeited to both NWC South and VX-5. During this bit of action in the VX-5 vs. NWC South matchup, David Strong and Cindy Fox, two of the players for VX-5, attempt to block a hard drive over the net by Gary Schmidt, of the NWC South team. Another front line player for NWC South visible in this photo is Ray Franklin, who is waiting to see which way the ball will go next. After losing the first game, 15-8, to the VX-5 volleyball team, the NWC South squad won the final two contests by scores of 15-10 and 15-13. As a result of this victory in volleyball, NWC South has reduced the VX-5 lead in the Admiral's Cup standings. Current point totals are: VX-5, 31; NWC South, 27, and NWC North, 17. Tennis competition will be the next Admiral's Cup event.

7th inning rally by opposing team results in 3-2 loss for Burros nine

A seventh inning rally that produced two runs turned a possible 2-1 victory into a 3-2 loss for the Burroughs High School varsity baseball team during a game played Tuesday afternoon at Saugus High School.

While this defeat was the third straight for the Burros in Golden League competition, it was the local team's best effort to date in league play after previous one-sided losses to Antelope Valley and Palmdale High Schools.

The Saugus Centurions worked a successful double steal in the second inning of Tuesday's game to go in front by a score of 1-0. With runners on first and third, the Centurions waited until the catcher started to return the ball to Terry Gaunt, who was on the pitcher's mound for Burroughs, and then made their move.

The Burros got that one run back and one more for good measure in the top half of the fourth frame. Mark Gritton drew a walk, stole second and tallied on a hit by Dave Cane.

Cane then moved to second base on a fielder's choice play, advanced to third on an attempted pickoff at the keystone sack during which the ball rolled out into centerfield, and tallied the Burros' second run of the game when a hard hit ground ball off the bat of Mike Cobb was bobbled by the Saugus second baseman.

That, however, turned out to be the only scoring punch the local high school nine

Monday closing of CL golf course announced

Beginning on April 3, the China Lake golf course will be closed all day on Mondays.

According to Ralph Stumbaugh, manager of the golf course, this step is being taken in order to allow the maintenance crew to carry out (on an uninterrupted basis) such work as the application of fertilizers, pesticides and fungicides.

It also will allow time to accomplish repair work and programmed renovation of the golf course, Stumbaugh stated.

Edwards AFB soccer team hands 3-2 loss to China Lake squad

Soccer players from Edwards Air Force Base made up for an earlier loss this season to the adult team of the China Lake Soccer Club by winning, 3-2, in a match played here last Saturday at Davidove Field.

On Feb. 25, the China Lakers shut out their rivals from Edwards Air Force Base, 3-0, during a game played at Edwards. Last Saturday, however, the local team couldn't get its offense coordinated, and also was weak on defense in the first half, which ended with the visitors ahead by a score of 2-0.

During the second half of play, the China Lake Soccer Club switched its style of offense a bit and began to dominate the game. Roy Birkhead, center forward for the local squad, made it a 2-2 ball game as he scored the second of the China Lake team's two goals with 15 minutes still left to play in the contest.

Both goals were tallied after long kicks across the field from Marv Goodman, right wing for the China Lakers, moved the ball into scoring position near the far goalpost of the Edwards team.

Two minutes before the soccer match was due to end, Denny Wilson, player-coach for the Edwards AFB team, got around to the blind side of Dave Bates, goalie of the China

(Continued on Page 7)

Proposed new fees to be discussed by golf club members

The China Lake Men's Golf Club will meet tomorrow morning at the golf course to discuss proposed new golfing fees and other matters, Mike Sanitate, president, announced.

Current monthly fees are \$16 for a single person, \$24 per family and \$30 for an associate membership.

The club's April Ace-of-the-Month competition will also be held tomorrow. Last month's winner in this event was Frank McElfish, while Mike Bass was first alternate.

Jack Mussler won last Saturday's blind bogey tournament with a low net of 65, while Doug Hopkins, Bill Stokes and Myron King all scored low net 66s. Next with 67s were Mel Smith and Lew Ballenger.

Jim Mantz won blind bogey low gross honors with a score of 74, and Bill Wright finished second with 75.

Other topics to be discussed at tomorrow morning's club meeting include the Junior Golf Program and club plans for the coming year.



GOLF TROPHY PRESENTED—The trophy for winning the annual Commander's Cup golf tournament was presented last Friday by Rear Admiral William L. Harris, NWC Commander, to William Lawson. Looking on at left is Richard Rusciollelli, who tied Lawson's low net score of 136 in the 11- to 16-handicap group, after two 18-hole rounds of play at the China Lake golf course. In a sudden-death playoff, however, Lawson came through with a birdie (one under par) on the first hole to claim the Commander's Cup tourney title. Because of the first place tie, both men's names will be engraved on the perpetual trophy shown above. For their efforts, Lawson and Rusciollelli received gift certificates in the amount of \$45 and \$30, respectively, which are redeemable for items on sale at the China Lake golf course pro shop. A total of 62 golfers competed in this year's Commander's Cup golf tournament—an event sponsored by the China Lake Men's Golf Club.

Meeting to exchange information on electro-explosive devices held here

A group of more than two dozen persons, more than half of whom were from off-Center, met here last week to exchange information on the state-of-the-art in the design, test, fabrication and failure analysis of electro-explosive devices (EEDs).

An EED is an explosive device that is initiated by an electrical signal. Its purpose is to act as the first element in an explosive train that detonates or ignites a high explosive warhead or rocket motor. Some types of EEDs (called dimple motors) are used to provide mechanical force.

In attendance at the meeting, which was sponsored by the Exploratory Development Branch (Code 3353) of the Fuze and Sensors Department, were experts in the field of EEDs from the Navy, Army, Department of Energy, industry and universities.

Co-Chairmen of Meeting

Co-chairmen of the meeting, which began with an introduction by Herb Bulgerin, head of Code 33's Advanced Systems Division who represented R. A. Boot, his department head, were M. E. Anderson, head of the Fuze and Sensors Department's Electro-Mechanical Division; S. L. Redmond, head of Code 3353, and R. L. Smith, a chemist, also from Code 3353.

Prior to splitting up into various working group sessions, the attendees listened to a presentation by Anderson, who discussed Navy problem areas in EEDs. He began by discussing firing criteria, failure analysis and acceptance tests. Also covered by Anderson were the types of devices now used by the Navy which include hot wire detonators, delay detonators, primers, squibs and dimple motors.

During the three working group sessions that followed, the participants were involved in discussions about hot wire detonator characterization; the evaluation/qualification of hot wire detonators; exploding bridge wire characterization; firing circuits for both hot wire and exploding wire detonator firing circuits and their failure analysis.

Other Subjects Discussed

In addition there were discussions on explosive logic state-of-the-art, replacement of primary explosives and output characteristics of EEDs.

Those present for the meeting concluded that the Department of Defense (DoD) and the Department of Energy (DoE) have different requirements, but similar problems. It also seemed apparent that, due to funding and procurement constraints, the DoD is behind the DoE in the technology of test and characterization of EEDs.

The meeting turned out to be of value to NWC employees, since a number of things were learned that can be applied to present and future NWC programs.

Because of the need for DoE to share more information with the DoD, a steering group was established to arrange for

another meeting that will be held in May at Sandia Laboratories in Albuquerque, N.M. The list of off-Center attendees included the following:

Charles T. Davey from the Franklin Institute, Philadelphia, Pa.; Ramie H. Thompson and Walt Meyers of the Los Alamos Scientific Laboratory, Los Alamos, N. M.; Harold M. Barnett, Ed Kjeldgaard and David Anderson of the Sandia Laboratories, Albuquerque, N. M.

Richard Stresau, president of Stresau Laboratory in Spooner, Wisc.; John Stoud from Lawrence Livermore Laboratory in Livermore, Calif.; Keith Warner from the Harry Diamond Laboratories in Adelphi, Md.; Fred L. Menz and Scranton Nesbitt from the Naval Surface Weapons Center, White Oak, Md., and Dr. Louis A. Rosenthal from Rutgers University, Piscataway, N.J.

Cost overruns will be minimized by new contract procedure

A new contracting procedure to minimize cost overruns in Defense Department weapons contracts and at the same time encourage technical innovations is planned for implementation in mid-May.

Under present procedures, weapons contractors frequently submit low bids to win a defense contract and then find that additional funds are required to complete the contract because of unrealistic estimates.

The new Defense Department plan developed after two years of study provides a four-step process designed to place emphasis on the technical proposal before considering cost. This is expected to provide both a technically superior product and a realistic cost estimate at the beginning rather than well into the construction phase. Under the present contract process, consideration of technology, management and total cost is undertaken concurrently.

Discussion among the bidders under the new plan would be limited during the competitive phase (prior to the selection of a winner). A common cutoff date will be established for final bids from contractors and new best offers will be prohibited unless a major change in the specifications is ordered.

Blue Cross agent due

Kris Bergan, the Blue Cross / Blue Shield representative, will be at the Community Center on Thursday, April 13, from 10 a.m. until 2 p.m. Enrollees in this plan who wish to talk to Bergan will be seen on an appointment only basis.

A sign-up sheet will be at the front desk of the Community Center beginning on Monday. No appointments will be accepted by telephone.



CONGRESSMAN VISITS NWC—Barry Goldwater, Jr., 20th Congressional District Representative from the West San Fernando Valley-Ventura County area of southern California, paid a brief visit on Monday to the Naval Weapons Center. His office contacted NWC to arrange for this visit during the Easter recess from Congressional duties in Washington. In top photo, Congressman Goldwater (seated) is listening intently to information being presented about work done here on the development of aviation navigational aids for the Federal Aviation Administration. Speaking is Jim McLane, head of the Weapons Department's Prototype Development Branch, while Rear Admiral William L. Harris, NWC Commander, looks on in background. In photo at lower left, RADM. Harris greets Congressman Goldwater upon his arrival at the NWC airfield. Richard Fulmer (lower right photo), head of the Energy Program Management Office, brought the visiting legislator up-to-date on developments in the program to convert trash to gasoline. Congressman Goldwater also was briefed by Capt. R. B. Wilson, head of the Public Works Department, on the current status of geothermal energy research work that is being conducted by NWC scientists and engineers.

Technical Director visits 7th Fleet...

(Continued from Page 1)

While aboard the Kitty Hawk, Hillyer observed operations and held discussions with the Weapons Officer and his staff, Strike Operations personnel, Air Wing personnel, and with Rear Admiral E. E. Tissot and members of his staff.

Particular thanks were expressed by the NWC Technical Director for the excellent discussions by Cdr. Tony Apap, Weapons Officer on the Kitty Hawk; Cdr. Phil Wood, of Carrier Wing II, and Cdr. Hugh Replogle, Strike Operations Officer.

In addition, Hillyer attended a briefing and witnessed a demonstration by Ron Backman, an electronics engineer in the NWC Systems Development Department's Aircraft Armament Division, who was there

to do some programming and check out work on LINDA, an NWC-developed computerized system that is an experimental answer to the complex problem of communications on an aircraft carrier.

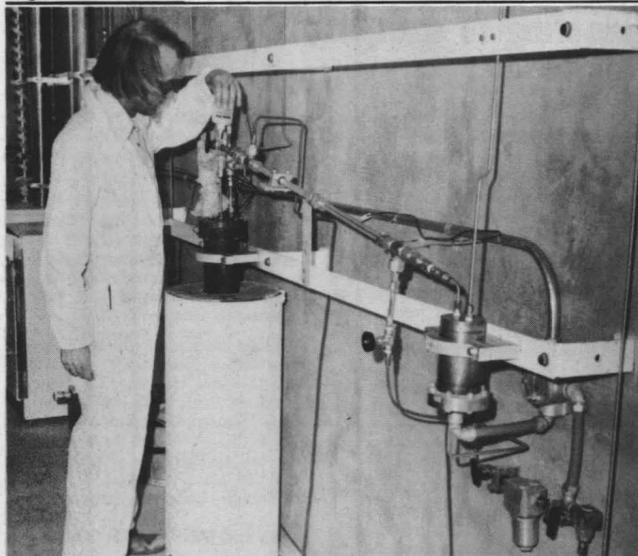
The NWC Technical Director gained highly beneficial first-hand knowledge and appreciation of problems of moving, handling, and repairing weapons and aircraft on board ships. He was in particular impressed with the way in which the difficulties were overcome in moving ordnance from stowage magazines up through the various elevator stations to the flight deck and then to different locations on the flight deck made unsteady by waves and wind during both daytime and nighttime operations.

CONSERVE ENERGY

ENERGY "HOT TIP" — The "Killer-Watt," a small circular fluorescent tube, converts your table lamp from incandescent to fluorescent light and cuts energy consumption in half! Although the initial cost of fluorescent light tubes is higher, the extra life will result in an 18-month payback and \$3 per lamp/year energy cost savings thereafter. "Killer-Watt" is commercially available at many home furnishing stores. Call the Energy Answer Man at NWC ext. 3741 for solutions to your household energy problems.



INFORMATION EXCHANGED ON ELECTRO-EXPLOSIVE DEVICES—Some of the current problems in the development and production of electro-explosive devices were discussed by Rex Smith (standing at left) during a meeting held last week at the Naval Weapons Center. Shown listening to Smith, who is a chemical engineer in the Exploratory Development Branch of the NWC Fuze and Sensors Department, are a group of off-Center experts in this field. They are (l.-r. seated around table) Fred Menz, Charles Davey, Ed Kjeldgaard, Richard Stresau, John Stroud, Dr. Louis Rosenthal, Walt Meyers and Keith Warner.



CHECKING FOR LEAKS—Before starting another test run, Jim Diebold checks the high pressure polymerization reactor for any leaks. Gas pressure in the reactor during a test run is 750 pounds per square inch.

Trash to gasoline conversion...

(Continued from Page 1)

a polymerizing reactor that is kept at 850 degrees F.

While the gases are polymerizing in the reactor, they react with one another to form larger gasoline molecules. In a continuous process, the polymerized gases coming out of the polymerizing reactor are collected and condensed to form the liquid product, gasoline.

"At the pyrolysis end of it, we are about meeting the goal—getting a little more than half of the energy that exists in the feed stock to come out in the form of ethylene and propylene. When the gas purification system is upgraded and operating properly, the projected result is a barrel of gasoline per ton of raw solid waste feedstock," Diebold said. Impurities in the polymerizer feed gases greatly decrease the gasoline yield. Modifications needed to upgrade carbon dioxide removal by the use of a "hot carbonate" process are being made.

"We are the only ones attempting to make gasoline from trash without any catalyst to make the reaction go," Diebold stated. His principal associate in this work is Gary Smith, a mechanical engineer, and there are two mechanical engineering technicians — Don Davis and Roy Hunter — who have worked on fabrication or redesign of the special equipment that is being used. In addition, enthusiastic cooperation from the Ordnance Systems Department's various support groups—pipe shop, electric shop and outside machinists—and the field support unit of the Technical Information Department has been helpful to the project.

Dr. Charles Benham, who left the Naval Weapons Center last fall to work for the Solar Energy Research Institute in Golden,

Talk about work on giant zeppelins scheduled by AIAA

A dinner meeting of the China Lake chapter of the American Institute of Aeronautics and Astronautics (AIAA) will be held next Wednesday, April 5, at the Hideaway in Ridgecrest.

A social hour starting at 6 will precede the 7 p.m. dinner, and the program, featuring a talk by Harold G. Dick, an AIAA member who is president of the Wichita Ponca Canvas Products Co., will follow at 8.

During a talk entitled "The Golden Age of the Great Rigid Airship," Dick will discuss his personal experiences while serving from 1934 to 1938 as the Goodyear Co. liaison engineer to the German zeppelin works.

This AIAA meeting is open to the public, and no reservations are necessary. Those attending will be able to order dinner from the menu, Edward Fuller, program chairman, said.

Colo., had a key role in this program from its beginning until his departure from China Lake.

Diebold has filed an application for a patent that is pending on the process of converting organic municipal waste to gasoline. Many steps in the process have been commercialized in the past, but he and his co-workers at NWC are the first to attempt to tie the various steps together in one continuous process with the advanced pyrolysis system.

The bench scale system that has been developed is now in the final stages of debugging. At the same time, the Dow Chemical Co. in Freeport, Tex., has been retained by the Environmental Protection Agency to do a technical and economic evaluation of the process.

The application of the trash-to-gasoline process calls for using techniques now in full-scale development elsewhere for separating raw municipal solid waste into organic and inorganic process streams.

The organic portion would be pyrolyzed to form gaseous hydrocarbons suitable for purification and polymerization to high octane gasoline. By-product gases and char would be used to supply the process energy.

Preliminary economic evaluations indicate that a civilian municipality of 100,000 population (which must find the means of disposing of 250 tons of solid waste per day) could operate such a plant with a substantial profit margin.

The outlook of rising trash disposal costs as well as increased petroleum costs combine to make the potential of this process very promising.

Cruise Missile Project jobs open

The following positions are organizationally and physically located in the Joint Cruise Missile Project Office, Washington, D.C. These positions are temporary in nature and are not expected to last beyond two years (but may be extended beyond this time with approval of the Civil Service Commission). Selectees will have return rights to their current activity at their grade level. Applications will be accepted from current Department of the Navy employees.

General Engineer, GS-801-12 — Applicants for this position will be required to submit an up-to-date Standard Form 171, and fill out the supplemental questionnaire which is available in Rm. 212 of the Personnel Building. As software engineer, incumbent plans, manages, coordinates and oversees all efforts of land attack and anti-ship software configuration control development performed by JCMPO, government laboratories and contractors. Continuously reviews and monitors efforts to ensure goals and objectives are met; i.e., establishes a software configuration baseline, insures commonality between software systems of the project; analyzes and selects courses of action when conflicts arise; allocates work; establishes and manages configuration status accounting; directs audits to verify conformity of requirements; and chairs Software Configuration Change Board, evaluating and recommending change proposals. Serves as expert in cruise missile, configuration software development area interfacing with hardware disciplines for trade-off and other studies and participating in long-range plans. Requires close contact with a wide range of government and contractor

personnel at all management levels. Job Relevant Criteria: Applicable technical background in missile or aircraft systems engineering, software engineering, configuration control, program management, and contract management. Communications ability, both orally and in writing. Ability to analyze complex problems and make recommendations and decisions. Skill in interpersonal relationships.

Logistics Management Specialist, GS-344-13/14 — This position is the assistant to the project manager for Navy Logistics, on the staff of the Director of the Joint Cruise Missile Project Office. The incumbent is responsible for logistics program planning to insure common applications of logistics plans. The principle areas of logistics planning include the various Navy versions of the cruise missile, guidance sets, motors, launch equipment and support/test equipment. Incumbent will be responsible for insuring adequate contractor compliance with ILS requirements for Navy Cruise Missile Systems. Job Relevant Criteria: Knowledge of management planning, direction, coordination, and execution of Integrated Logistics Support programs for complex missile or other weapons systems; ability to direct the efforts of weapons systems development contractors; ability to communicate correctly and concisely, both orally and in writing; skill in interpersonal relationships (maintaining harmonious relationships with individuals of diverse backgrounds and interests, reconciling differences, facilitating compromises).

File applications for the above with Pat Gaunt, Bldg. 34, Rm. 212, Ph. 2514.

Ocean farming prospects, getting energy from sea to be discussed

A talk on the subject of the prospects for food and energy from the ocean will highlight the next meeting of the East Kern County Chapter of the American Society for Public Administration (ASPA).

The meeting, which is open to all interested persons, will be held on Friday, April 7, starting at 11:30 a.m. in the Mojave Rm. of the Commissioners' Mess.

The speaker will be Dr. Howard A. Wilcox, a staff scientist in the Environmental Sciences Department at the Naval Undersea Center in San Diego. He will discuss both the technical and public policy aspects of ocean engineering.

Dr. Wilcox has been involved since 1972 in studying the ocean as a source of food and energy. His efforts began while he was a consultant to the Naval Weapons Center Technical Director, and he took this work with him as his principal endeavor when he transferred from NWC to the Naval Undersea Center in 1973.

Responsibility for this program is now with the General Electric Co., but Dr. Wilcox is continuing to provide consulting services.

The speaker at next Friday's ASPA luncheon meeting is a former Deputy Director of Defense for Research and Engineering. Before that, he was employed at China Lake as head of the Research Department and later the Weapons Development Department.

In addition, he has held key technical and managerial roles in industry and taught at

Women's woodworking class may be offered here

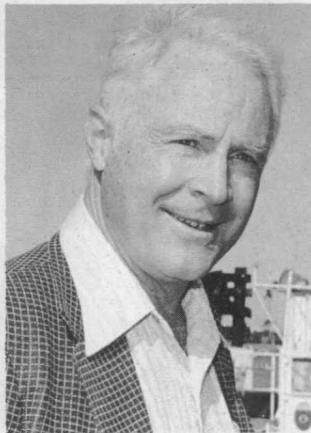
The Special Services Division's Wood Shop is planning a women's woodworking class, depending upon interest shown, which will also determine the starting date and fees to be charged.

The class will be taught by Ralph Vuono, who owns his own business in Ridgecrest and makes custom signs and wooden novelties, Mike Kinne, manager of the NWC Hobby Shop complex, said.

"He can really do fantastic things with

the University of California. He also participates on national and state scientific panels.

Members of ASPA and Sigma Xi (honorary scientific society) will be charged \$3 each for the beef stroganoff lunch that will be served. The fee for non-members of these two organizations who attend is \$3.50 per person. No reservations are necessary, and payment for the luncheon will be collected upon entering the Mojave Rm.



Dr. Howard A. Wilcox

wood," Kinne added in his praise for Vuono's abilities as a woodworker.

The class will include an introduction to woodworking and instruction on how to use the shop's tools. Later, students will be allowed to bring items to class that need repair or refinishing, Kinne explained.

The class will only accommodate 8 to 10 persons and women desiring to attend should contact Kinne by calling NWC ext. 3252, Tuesday through Friday, after 2 p.m.

Promotional Opportunities . . .

(Continued from Page 2)

Bldg. 34, Rm. 206, Ph. 2577.
Engineering Technician, GS-802-11, PD No. 7831028, Code 3123 — This position is located in the Gun Systems Branch, Aircraft Armament Division, Systems Development Department. The incumbent is in charge of all phases of testing for gun/ammunition developmental and evaluation programs. He coordinates the work performed by contractors, acts as liaison with Army and Air Force, and develops new test and evaluation techniques and equipment. He analyzes and evaluates the results of the tests and makes reports and recommendations based on the tests.

Job Relevant Criteria: Knowledge of cannon caliber gun systems and ammunition; knowledge of test procedures; ability to analyze and assess data.

Clerk-Typist, GS-322-3/4, PD No. 7540007, Code 3171 — This position is located in the Strike Warfare Branch, Systems Effectiveness Division, Systems Development Department. Incumbent provides clerical services to the branch office, including typing technical and non-technical reports, correspondence, memos, and travel orders;

filling; receiving office and telephone calls; and other such duties. Job Relevant Criteria: Ability to type efficiently and accurately; reliability and dependability; ability to deal tactfully and effectively with personnel of all levels. Applications will be accepted from status eligibles.

File applications for the above with Pat Gaunt, Bldg. 34, Rm. 212, Ph. 2514.

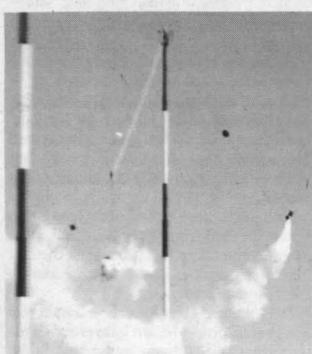
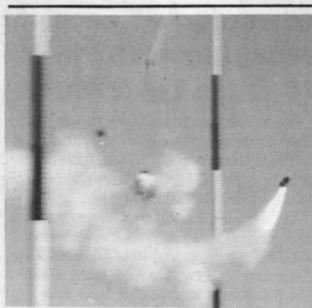
Budget Analyst, GS-5607/9/11, PD No. 7808014, (2 vacancies) Code 083 — Temporary Intermittent (WAE). This position is located in the Budget Division, Office of Finance and Management. The incumbent prepares budgets and plans for customer departments, monitors and reviews budgets and financial status reports; assures correctness and adequacy of journal entries. Job Relevant Criteria: Knowledge of Department of the Navy and NWC accounting procedures; knowledge of Department of the Navy and NWC accounting procedures; knowledge of Center budget and fiscal policies; ability to work with persons at all levels within the organization. Status eligibles accepted.

Supervisory Budget Analyst, Code 0833 — Detail assignment NTE 120 days. This position is the Head, Resource Management Branch A in the Budget Division of the Office of Finance and Management. The incumbent assists the Division Head in managing the division by providing leadership in financial policies and personnel supervision. Incumbent leads small groups in the study and analysis of complex financial problems and assists the division head in reviewing and developing processes and procedures to provide the most financial training to division and other NWC employees. Job Relevant Criteria: Must have demonstrated ability to solve complex financial problems; must be able to supervise a small professional staff; must be able to interface with all levels and types of personnel; and must be able to articulate effectively both orally and in writing.

File applications for the above with Tina Rockdale, Rm. 206, Ph. 2676.

Contract Specialist GS-1102-9/11, PD No. 7725007/7125011, Code 2521 — Applications accepted from status eligibles. This position is located in the Procurement Management Branch, Procurement Division, Supply Department. The incumbent analyzes proposed contractual actions for major weapons systems and research programs; provides precontractual and post-contractual liaison between NWC and appropriate contracting offices and acts as a Requiring Activity Contract Administrator (RACA). Consults with and provides contract advisory services to Center management and technical personnel. Job Relevant Criteria: Knowledge of government procurement and contractual practices. Experience in the procurement of technical equipments, systems and services. Knowledge of current business practices including business law and accounting. Promotion potential: GS-12.

File applications for the above with Ginger Hamaty, Bldg. 34, Rm. 212, Ph. 2571.



BAIL OUT! — An anthropomorphic dummy strapped to the vertical seeking aircrew escape system got a spectacular ride recently during the second of a series of three projected tests of the system. The seat (and dummy) were ejected parallel to the ground from an A-6 aircraft cockpit that was suspended at a 90 degree roll attitude between two towers at an altitude of 100 feet above ground level. The seat dropped 2½ feet before turning to a vertical position and shooting upwards to an altitude of 482 feet, at which point the parachute was deployed. In the sequence of pictures, the dummy and seat were ejected from the cockpit and are starting their ascent in the first, and by picture

No. 3 are well on their way. Had this been a live pilot in an emergency situation, he would have been assured a safe parachute-assisted landing. The vertical-seeking aircrew escape system consists of a three-axis electromechanical rate gyro package, a microcomputer, and ancillary electronics which activate a gimbaled under-seat rocket motor that propels the seat clear of the aircraft and into an upright position sufficiently above the level of the aircraft so that the parachute deploys for a safe landing. A third test is planned from an inverted cockpit also suspended 100 feet above ground level. NWC project manager is W. J. (Bill) Stone, of the Ordnance Systems Department.

10 sailors chosen to assist Navy recruiting program

Ten China Lake sailors have been selected for the Navy's "blue-ribbon" Hometown Area Recruiting Program (HARP); four are assigned to the Naval Weapons Center and six to Air Test and Evaluation Squadron Five.

Enlisted personnel who have already served as recruiter's assistants under HARP are Airman Apprentice Cheryl A. Twamley of NWC and Aviation Maintenance Administrationman Airman Richard J. Lee, Aviation Electrician's Mate Airman Jose L. Sandoval, Airman Kevin S. Mason, Aviation Electrician's Mate Second Class James C. Woolley and Aviation Machinist's Mate Airman Randy L. Atchinson, all of VX-5.

Those selected for future HARP duty are Yeoman Third Class Angela M. Brown of VX-5 and, from NWC, Aviation Maintenance Administrationman Airman Michael D. Carvlin, Aviation Structural Mechanic Second Class Kenneth J. Conrad and Aviation Boatswain's Mate Airman

Qualified lubrication specialist on duty at NEX service station

Since moving to its new location on Richmond Rd. at King St., the Navy Exchange service station now has a qualified lubrication specialist on duty during regular hours of operation—Monday through Friday, from 9:30 a.m. to 5:30 p.m.

Sam McMullen, a mechanically-inclined former supervisor of the Navy Exchange Annex, was sent to Long Beach for additional training as a lubrication specialist before being assigned his present duties.

McMullen, who also has had previous experience as an employee of the former Fedco Service Station at China Lake, handles vehicle oil changes and lubrication work, replaces worn out fan belts or air filters, installs new batteries, and repairs and rotates automobile tires.

Motorists can make appointments to have their cars worked on by calling 446-5044, or can drop their car off whenever they wish without first making an appointment.

Open house set Monday at ESB Child Care Center

Open house Monday at the Employee Services Board's Child Care Center at the corner of Lauritsen Road and Nimitz Avenue on the Center will begin a week-long Indian Wells Valley observance of "Week of the Young Child."

The week's activities, which is a joint effort of the IWV preschools and the Desert Area Preschool Association, includes open houses at other local nurseries, child care centers and preschool education centers, ending Friday with open house at the China Lake Nursery School.

Open house at the ESB Child Care Center will be from 9 a.m. until noon on Monday and at the China Lake Nursery School from 9 to 10:30 a.m. next Friday, April 7. Other open houses in the area will be between 9 and 10:30 a.m. at El Rancho on Tuesday, the Cerro Coso College Child Care Center on Wednesday and Ridgecrest Day Nursery on Thursday.

The Ridgecrest and China Lake libraries will also hold children's story hours in connection with the observance. The days, places and times are:

Monday, Ridgecrest library, 2 to 3 p.m.; Tuesday, Ridgecrest library, 10 to 11 a.m. and China Lake library, 2 to 3 p.m.; Wednesday, Ridgecrest library, 2 to 3 p.m.; Thursday, China Lake library, 2 to 3 p.m.; and Friday, Ridgecrest library, 2 to 3 p.m.

In addition to reading stories from children's books, the Ridgecrest library will also feature puppet shows on Wednesday and Friday.

The purpose of "Week of the Young Child" is to draw national attention to the importance of preschool and early childhood education. The IWV observance is intended to give local residents a chance to see the area's early childhood education programs in action.

Lessons in ballet suggested for trim figure in swimsuit

Summertime is swimsuit time, and there's no better way to get into shape for the extra demands of the season than ballet!

Beginning today from 4:30 to 5:30 p.m., the Ballet Arts Theater is taking applications for its annual special session of ballet instruction which starts next month.

Registration will also take place at the same time again Monday and from 1 to 2 p.m. on Tuesday at 303 Blue Ridge Rd., China Lake.

Late registration will be announced later depending on the need, according to Bette Jacks, who will teach the classes.

The starting date in April will depend upon dates selected by persons registering, and the classes will run for six weeks.

Registrants may choose morning, afternoon or evening sessions.

The entire \$20 registration fee for the ballet instruction will be contributed by Mrs. Jacks to the Maturango Museum building fund.

Happenings around NWC

The popular "Sounds of Country" band from Las Vegas is returning again tonight and will play from 8:30 to 12:30 a.m. at the Chief Petty Officers' Club.

Dinner tonight from 6 to 9 will feature the CPO's special prime rib for \$6.25 per person.

Metal Trades Council
The next regular monthly meeting of the Indian Wells Valley Metal Trades Council will be held on Thursday, April 6, starting at 7:30 p.m., at 65-B Halsey Ave., China Lake. The Council is the representative of a unit composed of the Center's non-supervisory, ungraded, civilian employees of the Naval Weapons Center who are located at China Lake.



Michael A. Santone

Michael Santone now in charge of operations at Center library

Out of the deepfreeze and into the frying pan is one way to describe Michael A. Santone's career as a Department of Defense librarian.

Santone, who became the Naval Weapons Center's new librarian Monday, reported from a year's duty as librarian at the Marine Corps Air-Ground Combat training Center, 29 Palms, Calif.; but prior to his assignment there, he spent 2½ years at Fort Greeley, a U.S. Army base in east central Alaska.

He described Fort Greeley as the Center's cold-weather counterpart, since personnel at the Alaskan base conduct Arctic tests on weapons, materials and clothing.

"They weren't happy unless the temperature was 40 degrees below zero or lower. Then, they ran out and started testing," he said.

Prior to becoming base librarian at Fort Greeley, Santone was the librarian at Elmira College in Elmira, N.Y., for 10 years. Santone, who is retired from the Air Force, holds master's degrees in education and library science and a BS in history.

"I went to Alaska to make my fortune by working on the pipeline," he said. "But, when I got there the environmentalists had closed down construction."

He waited for a year for work to begin,