

### Improved services, cut in dues spurs membership growth

A combination of new activities, improved services, and reduced dues is attracting new members to the Commissioned Officers' Mess, with additional memberships open for those who are qualified and interested.

A total of 43 members joined or re-joined the COM during the month of March.

Comments from those who have joined or re-joined the "O Club" recently include such statements as:

"The food is really good now, and the atmosphere's friendly. It's a fun place to go."

"I enjoy the happy hours. There's a feeling of belonging and camaraderie that's great."

"It's a good place for dating and for meeting people," adds a single member.

Regular events scheduled at the COM feature such items as a Monthly Membership Night with good food, entertainment, and dancing for a reduced price; international cuisine prepared by a master chef several times a month; Wednesday game night, preceded by a low cost steak dinner; Wednesday and Friday happy hours; and a Lucky Tab Night.

Now being augmented are plans for an expanded salad bar, a dessert table, a larger wine selection, and more frequent entertainment.

Because of more members and more efficient management, COM dues have been reduced to \$5 per month.

Eligible for membership are all active duty and retired officers, all GS-9s and above as well as GS-5 and -7 technical and administrative personnel in two-grade interval series, general foremen, supervisory planners and estimators, supervisory inspectors, non-appropriated fund and support personnel of equivalent levels, and contractor technical representatives.



**BEST POOL PLAYER** — Gunner Sergeant Steve Mills of the Marine Corps Liaison Office at China Lake receives a trophy for winning first place in a recent pool tournament held at the Panamint Pool Hall from Capt. F. H. M. Kinley, NWC Vice Commander. GSgt. Mills competed against 15 individuals and was the overall winner in the double elimination tournament. — Photo by Ron Allen

### Ten mile Care-A-Thon walk for world hunger planned tomorrow

Hundreds of boys, girls, men and women are expected to be among the local area's residents who will be doing something about world hunger on Saturday, when they strike out on a 16 kilometer (10 mile) walk within the Ridgecrest City limits.

They will be participating in a CROP (Christian Rural Overseas Program) Care-A-Thon Walk to draw attention to just how hungry many people throughout the world really are. Jack Eisel, a research physicist in the NWC Research Department's Aerochemistry Division (Code 3882), and coordinator of this year's walk, stated "The walk is an act of solidarity because most of the world walks for its food."

Many of the service clubs in the local area will be competing against one another in the walk. The Exchange Club, Rotary, Kiwanis, and Altrusa have issued challenges to the other clubs. The winner will be determined by the best combination of numbers of participants in tomorrow's event, the amount of money pledged, and kilometers completed. The losing service clubs must provide a dinner for the winning club.

Funds raised from the walk will go to CROP, the community hunger appeal of all CROP funds are used for long-term, self-help development such as food for work projects, family planning, vocational education and well digging projects.

Ten percent of the money raised in the

Indian Wells Valley will remain here to be used by the Salvation Army to assist disadvantaged people in the local area.

Eisel said that the problems of world hunger are just as great today as they were after World War II when CROP began as a Wheat for Relief appeal to eight midwestern states.

"There are simply too many people in the world," Eisel said. "It took from the beginning of man until A.D. 1830 for one billion people to inhabit the earth. The second billion was reached 100 years later. By the year A.D. 200 the world population could total 7 billion."

An estimated 300 million children are being physically and mentally crippled by malnutrition and that's in addition to the 15 million under age five who starve to death every year.

"The Care-A-Thon walk will provide us with the opportunity to respond to this need and to demonstrate our love of each other and the world in the face of it all," Eisel said.

Among the groups sponsoring the walk are the Joshua Parish of the United Methodist Church, Covenant United Presbyterian Church, St. Michael's Episcopal Church, St. Ann's Catholic Church, First Baptist, Unitarian Fellowship, Ridgecrest/China Lake Salvation Army, Rotary, Kiwanis and Altrusa Club, and the Over-the-Hill Track Club.

Eisel invites other community groups, churches and service clubs to join in sponsorship of the walks.

"If you wish to walk or to sponsor a walker call me at 375-4004 or Kay Weeks at 375-9383 or 375-7434," Eisel said.

### CLOTA to present 'Play It Again Sam'

The Community Light Opera and Theatre Association (CLOTA) will present "Play It Again Sam" by Woody Allen at the Burroughs High School lecture center on April 12, 13, and 14 at 8:15 p.m.

Dennis Woolam will star as Allen in the comedy about a man whose wife leaves him and then he is coached by the spirit of Humphrey Bogart to get more women. The stage play is directed by Steve Carter.

Tickets, priced at \$3 for general admission and \$2.50 for students, enlisted personnel and senior citizens, will be available at the lecture center box office, or can be purchased in advance at the Gift Mart in Ridgecrest.

### 'Windy Players' to present parody on life at China Lake

The "WACOM Windy Players" will be on stage at the Women's Auxiliary of the Commissioned Officers' Mess luncheon on Tuesday, April 17, with their version of a soap opera on life at China Lake entitled "As the Wind Blows."

The menu for this meeting at the COM will include Maryland fried chicken, country cole slaw, home fries, and fruit custard.

Reservations may be made by calling Shirley Sutton at 375-9179 or Dayle Huckins at 375-7655 before noon on Monday, April 16. Husbands of WACOM members are invited to attend.

Tickets are still available for the WACOM spring dance, "Teahouse of the April Moon." The ticket price of \$12.50 per person includes a Japanese dinner and music by the "Magic Marina," a group from Los Angeles.

All COM members and their guests are invited to attend the spring dance.



### Commissioned Officers' Mess

This evening the Commissioned Officers' Mess has scheduled another gala "Membership Night."

On the menu will be a choice of baron of beef or Icelandic cod, which will be served from 6 to 9 o'clock.

Appearing on stage for the listening and dancing pleasure of members and guests will be Charlie Spivak, well-known trumpet player, and his combo. The entertainment will begin at 8 p.m. and continue until 1 a.m.

The cost for this evening of dining and dancing will be \$5 for members and their spouses, and \$6 for guests.

Saturday at the COM will be "King of Roasts Nite," featuring prime rib of beef served from 6 to 9 p.m.

Coming up next week, on Tuesday, April 10, is barbecue night at the COM, while Thursday, April 12, is Greek night. The menu on April 12 will feature Moussaka, Athenian leg of lamb, or a combination plate. Dinners on Tuesday and Thursday will be served from 6 to 9 o'clock.

The COM announced this week that an Easter Sunday buffet will be available on Sunday, April 15, from 2 to 8 p.m.

The buffet will include a large salad bar featuring at least six varieties of salad; plus a hot food line offering baked ham and boneless breast of chicken.

The cost of this Easter buffet will be \$5.25 for adults and \$2.25 for children under 12.

### Enlisted Mess

Surf 'n turf will be on the menu this evening at the Enlisted Mess. Dinner will be served from 6 to 8:30 p.m.

Also on hand at the EM Club will be a new band from the Los Angeles area known as "Tools". The group consists of four guys and a gal who play everything from disco to contemporary rock music. They will be performing from 9 p.m. to 1:30 a.m.

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From: \_\_\_\_\_ PLACE STAMP HERE  
To: \_\_\_\_\_

# NWC rocketeer

Naval Weapons Center  
China Lake  
California

April 6, 1979

Vol. XXXIV, No. 14

Merit Award Winner



**QUICK, EASY TO INSTALL** — Bob Reid, designer of the Rail Ordnance Fire Extinguishment System, runs through a demonstration to show that the system can be installed quickly and easily inside a boxcar loaded with inert bombs. Using a forklift, it took two men just 10 min. to set the prototype system in place. With the use of attachment clips, Reid fastens one of the system's 20 nozzles in place.

### Message on Ethics in Gov't Act received from SecNav

The Ethics in Government Act of 1978 (Public Law 95-521), which is currently scheduled to become effective July 1, 1979, provides new statutory restrictions on civilian employment activities of former military officers and federal Civil Service employees (including retirees), according to a message received this week from the Office of the Secretary of the Navy.

The act does not bar a former officer or employee from seeking employment with any private or public employer once having left government service. In fact it is anticipated that these 1978 amendments will have little practical impact on the great majority of former officers and civilian employees.

Certain of the 1978 amendments modify existing statutory limitations on representational activities and are applicable to all former officers and Civil Service employees.

These modifications have not been a principal cause of concern, moreover, there appears to be an exaggerated impression of the scope of the remaining 1978 amendments which are applicable only to retired flag and general officers and former high level civilian employees, it was pointed out in the message from the Secretary of the Navy.

### Primary Purpose of Amendments

The primary purpose of the 1978 amendments is to prohibit those officers and government employees from making unfair use of their prior government position in the event they become employees of private companies.

The Secretary of the Navy is confident that this more specific applicability will be clarified and confirmed in soon to be published regulations defining the exact activities that are prohibited. Once published, such regulations will be widely disseminated so that a meaningful decision can be made with regard to personal plans for retirement.

In view of widespread concern that some of the provisions of the 1978 amendments may be misconstrued, some modifying legislation has already been introduced and it is anticipated that additional efforts to clarify the statute through legislation will

be forthcoming. The Secretary of the Navy expects this quite promptly and will keep everyone advised.

There have been previous questions concerning the status of persons whose retirement is effective July 1, 1979, and whether they would be subject to the new provisions. It has been determined by the Office of Government Ethics and the Department of Justice that any person retiring effective July 1, 1979, will not be subject to the new provisions.

The uncertainty surrounding the exact impact of the new provisions is appreciated and understood especially in the light of the present effective date of the act and the length of time that it has taken to resolve the serious questions regarding its impact, the message from the Secretary of the Navy Claytor said. However, it is considered that it will be in the best interests of all concerned to await the resolution of those questions rather than to take actions

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### Effective system developed for extinguishing fires in ammunition carrying boxcars

Fires are a serious problem to the Navy — whether they occur on an ammunition and fuel-loaded aircraft carrier at sea or in a railroad yard filled with ammunition-carrying boxcars.

For the past decade, personnel of NWC have been involved in work aimed at alleviating (or hopefully even eliminating) the possible consequences of fires. One answer to suppressing fires aboard aircraft carriers is the P-16, a compact low-profile fire fighting vehicle which NWC had a major role in developing.

The Thermal Research Branch, in what is now the NWC Ordnance Systems Department, is deeply involved in the problem of fires during the transportation of munitions.

### Boxcars Vulnerable to Fire

A boxcar by the nature of its design, exposed wood floor often saturated with spilled oils from years of use, is vulnerable from many fire sources such as an adjacent rail yard fire or a hot undercarriage of the boxcar itself. Over the past 10 years there have been numerous boxcar fires; two ordnance conflagrations were disastrous.

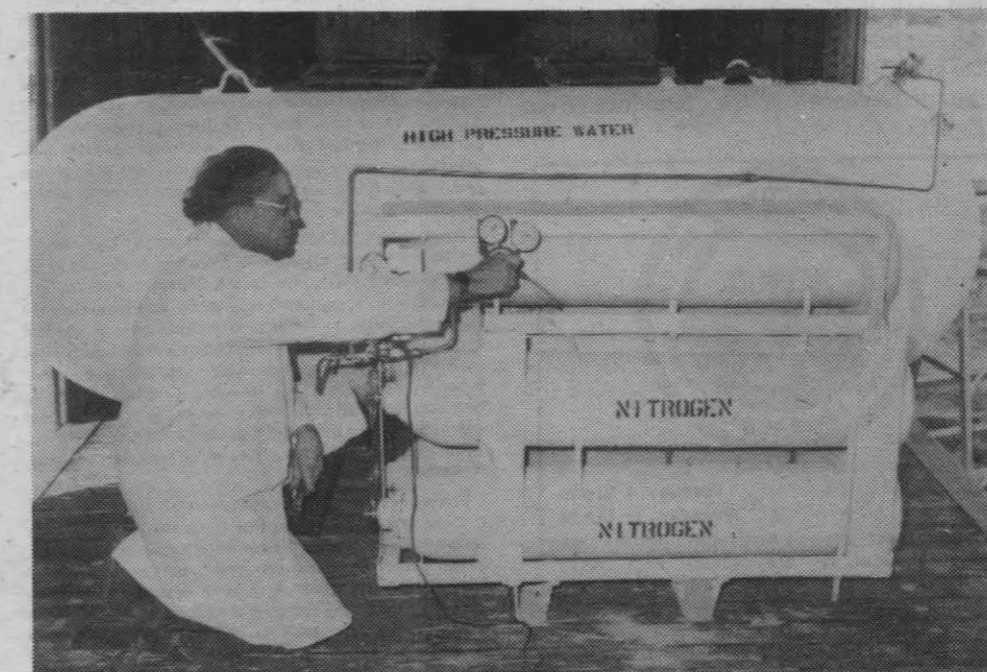
The most recent off-shoot of what is an ongoing effort to solve the latter problem is development of the prototype of a railroad boxcar or truck-trailer fire suppression system.

### Employees Involved in Work

Jack Pakulak, Jr., head of the Thermal Research Branch (Code 3278), has been directing this activity assisted by Bob Reid, a senior engineering specialist, who designed the newest system, and Dr. Carl Anderson, a research chemist, who has been concerned with the many variables that must be taken into consideration when attempting to determine the scope of this problem.

Following instructions to build a system utilizing off-the-shelf hardware in order to keep the cost to absolute minimum, Reid has developed a means of suppressing fires inside railroad boxcars that calls for the installation of a 500 gallon water tank (not unlike a large propane gas tank).

In this new application of what is an old technology, water from the tank is released



**COMPONENTS READILY AVAILABLE** — Standard bottles of nitrogen provide the pressure needed to turn water into a dense fog of water droplets capable of quickly extinguishing a fire. After its installation inside a boxcar, this fire suppression system can be made ready for use by turning on two valves and two electrical switches, as Bob Reid, above, demonstrates. — Photos by Ron Allen

at a pressure of 500 psi under spray nozzles that are infinitely smaller than those used on regulation fire fighting equipment.

What is produced is a fog composed of droplets of water between 2 and 3 microns in diameter — two orders of magnitude tinier than anything fire departments have available for use in fire suppression work.

During the first flow test of this system in mid-March, a deliberately-set fire on a 4 ft. square section of boxcar floor was allowed to burn for about 2 hrs. It was quenched completely in 10 sec. using approximately a quart of water, Reid said.

Coming up shortly is a larger test involving the use of inert, instrumented bombs which will be placed in a railroad boxcar equipped with the fire suppression system. The fire will be permitted to burn and the bombs heated almost to the point where (in the case of "live" bombs) detonation would occur before the fire will be extinguished.

This test, a part of the Safe Transportation of Munitions (STROM) program (Continued on Page 3)

### Work considered for contracting out under study

As required by the Department of the Navy, the Naval Weapons Center at China Lake last week announced it is reviewing all of its commercial or industrial type functions to determine if the potential exists for contractor performance. Navy-wide advance planning to select functions for review through fiscal year 1982 is necessary, and is being undertaken at the Naval Weapons Center.

Once selected, public announcement of the functions to be reviewed and the fiscal year of the review will be made. The procedures include the following time phased steps:

— First, making a determination if performance of the function by government (military or civilian personnel) is required. NWC is presently in the process of performing this review. This review is expected to be completed by the end of April 1979.

— Second, if contractor performance is indicated, studying this function in depth to include preparation of work statements, government costs, and obtaining approval from appropriate authority to solicit for bid.

— Third, soliciting for contractors to perform the function and making the final decision to contract if economical.

More than 100 separate functions at NWC are included in the review process. Of this number, seven functions have been directed for review during fiscal year 1979 at the NWC as announced last week in Washington by the Department of the Navy. These functions are:

- Motor vehicle maintenance
- Training and consultant services
- Photographic services
- Air transportation services
- Data processing services
- Grounds maintenance
- Roads maintenance

There are presently about 97 civilian and 14 military personnel at NWC employed in

(Continued on Page 3)

**MOVIES**

(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.  
(For synopsis information call  
Code - 0. Phone 939-2411)

**FRIDAY APRIL 6**  
"OVAL PORTRAIT"  
Starring  
Wanda Hendrix and Barry Coe  
(94 min., rated PG)

**SATURDAY APRIL 7**  
"HERBIE GOES TO MONTE CARLO"  
Starring  
Dean Jones and Don Knotts  
(105 min., rated G)  
1:30 Matinee — regular adm.  
"LAND OF THE MINOTAUR"  
Starring  
Donald Pleasence and Peter Cushing  
(94 min., rated PG)

**MONDAY APRIL 9**  
"MIDNIGHT EXPRESS"  
Starring  
Brad Davis and Bo Hopkins  
(121 min., rated R)

**WEDNESDAY APRIL 11**  
"EYES OF LAURA MARS"  
Starring  
Faye Dunaway and Tommy Lee Jones  
(103 min., rated R)

**FRIDAY APRIL 13**  
"TIGERS DON'T CRY"  
Starring  
Anthony Quinn and John Phillip Law  
(103 min., rated PG)

**SATURDAY APRIL 14**  
"POCO—LITTLE LOST DOG"  
Starring  
Chill Willis and Michelle Ashburn  
(96 min., rated G)  
1:30 Matinee—regular Adm.  
"A LITTLE NIGHT MUSIC"  
Starring  
Elizabeth Taylor and Diana Rigg  
(125 min., rated PG)

HOLY WEEK SERVICES



The following is the schedule for Catholic and Protestant services at the NWC All Faith Chapel during Holy Week...

CATHOLIC CONGREGATION

Palm Sunday, Masses at 8:30 and 11:30 a.m. Holy Thursday, Mass of the Lord's Supper, 5 p.m. Good Friday, 5 p.m. Saturday, Vigil Mass, 5 p.m. Easter Sunday, Masses at 8:30 and 11:30 a.m.

PROTESTANT CONGREGATION

Palm Sunday Service, 10 a.m. Maundy Thursday, Communion Service, 7 p.m. Easter Sunday Service, 10 a.m. On Maundy Thursday, April 12, there will be a sacrificial soup supper in the East Wing...



Reservations due today for Hebrew Congregation community Seder

Today is the last day for reservations for the community Seder to be held by the Hebrew Congregation of the NWC All Faith Chapel in the East Wing of the Chapel on Friday, April 13, at 6 p.m.

Sacred music cantata to be presented Sun. by Protestant choir

"The Crucifixion," an Easter cantata by John Stainer will be presented at 10 a.m. on Palm Sunday (April 8) by the adult choir of the All Faith Chapel's Protestant Congregation.

This well-known cantata opens in the Garden of Gethsemane and centers around the arrest, trial, procession to Calvary and crucifixion of Jesus.

One of the best known and loved anthems in sacred music, "God So Loved the World," is a part of this musical work.

The Protestant Congregation choir, directed by Dovie Leonard, will be accompanied at the organ by Joan Fowler. Soloists will be Sam Haun, John Strommen, Robert B. Leonard, Capt. J. D. "Skip" Kiloran, Marvin Backman, and Robert A. Leonard.

The public is invited to attend this worship service. Free care for tiny tots will be provided in the nursery located in the Chapel's Annex No. 1 at the corner of Blandy Ave. and Lauritsen Rd.

calling Rose Varga at 446-3939 or by calling the All Faith Chapel, NWC Ext. 3506.

The Passover festival this year for Jewish people begins at sunset on Wednesday, April 11, and continues through sunset, April 19. The first and last two days are days of religious obligation for Jewish personnel.

Passover is one of the first and most important festivals of the Jewish year, commemorating the deliverance of Israel from bondage in Egypt.

The Passover feast starts at nightfall, and unleavened bread, called matzo, is served to remind the participants of the hasty departure of the Jews from Egypt when they had no time to let the dough for their bread rise.

Four cups of wine are drunk at special parts of the meal or service, each representing one of God's promises to the Israelites. At a solemn moment, the doors of the house are thrown open for the prophet Elijah, who may appear to announce the coming of the Messiah, followed by the words: "Blessed is he that cometh in the name of the Lord."

It is customary for the youngest child present to begin the ancient ritual by asking the question, "Why is this night different from all other nights?" He is answered by the recital of the Haggadah, an account of the story of slavery under the Pharaoh and the deliverance of the Israelites from Egypt.

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 097, Ext. 2667.

Electronics Engineer/Physicist, GS-855/1310-12, PD No. 793504E, Code 3521 — This position is in the Microwave Radiometry Branch, RF Development Division, Electronic Warfare Department.

Personnel Clerk (Typing), GS-203-4/5 or Clerk-Typist, GS-322-4, PD Nos. 7465015/7000007, Code 096/097 — This position is located in one of the Personnel Service Divisions of the Personnel Department.

Technical Publications Writer-Editor (PS&E), GS-1053-12, PD No. 7822071E/A, Code 23012 — This position is that of Head, Satellite Service Center.

Interdisciplinary - Electronics Engineer/Physicist, GS-855/1310-12, PD No. 78282, Code 3522 — This position is located in the RF Development Division, Electronic Warfare Department.

Interdisciplinary - Electronics Engineer/Aerospace Support Engineer/Physicist/Mathematician, GS-855/861/1310/1528-7/9 11/12, PD No. 7835127, Code 3513 — This position is located in the Simulation Analysis Branch, Systems Sciences Division, Electronic Warfare Department.

Electronics Engineer, GS-855-12, PD No. 7935067, Code 3512 — This position is located in the Electronic Warfare Analysis Branch, Microwave Development Division, Electronic Warfare Department.

Clerk-Typist, GS-322-3, PD No. 798017N, Code 099 — Intermittent work schedule. This position is located in the Special Services Division of the Office of Finance and Management.

Electronics Technician, GS-856-9/10/11, PD No. 7437036-1, Code 62941 — This position is located at the Range Support Branch, Range Instrumentation Support Division, Range Department.

Clerk-Typist, GS-322-4, PD No. 7465027, Code 091 — This position is located in the Employee Management-Relations Division of the Personnel Department.

and to discharge Personnel Department responsibility in the areas of labor relations, employee services and employee relations. Incumbent of this position provides clerical support to the division in the incentive awards program.

Personnel Clerk (Typing), GS-203-4/5 or Clerk-Typist, GS-322-4, PD Nos. 7465015/7000007, Code 096/097 — This position is located in one of the Personnel Service Divisions of the Personnel Department.

File applications for the above with Jan Nieberlein, Bldg. 34, Rm. 204, Ph. 2577.

Technical Publications Writer-Editor (PS&E), GS-1053-12, PD No. 7822071E/A, Code 23012 — This position is that of Head, Satellite Service Center.

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Youth Soccer League opens with full slate of 7 games at Davidove Field

A full seven-game schedule of competition launched the Youth Center Soccer League's spring season of competition last Saturday at Davidove Field.

In the first American Division game (for youngsters in the third and fourth grades), Scott Oliver tallied the only goal of the contest to give the Hurricanes a 1-0 victory over the Sting.

One of the top match-ups of the day, an American Division tilt between the Lancers and the Rogues, ended in a 2-2 tie. Shaw Carter set up 2 goals by Guy Stanton which gave the Rogues a 2-0 halftime lead.

In the second half, however, Nick Holzer and Corey Trovinger of the Lancers broke through the Rogues' defense with one goal apiece to tie the score at 2-2.

In the third American Division contest, Doug Dragovich made his final appearance as a player for the Strikers a memorable one as he booted home three goals to lead the Strikers to a 5-0 shutout over the less experienced Timbers.

Two more goals were tallied by Scott Piri of the Strikers, whose goalie, Mike Nirenberger, succeeded in warding off all scoring threats by the opposing team.

In the initial contest in the Pacific Division (for teams with players in the first and second grades), the Rowdies scalped the newly-formed Chiefs, 5-0.

Goal scorers for the Earthquakes in their shutout win over the Fury were Matt Burros baseball...

David Mann tallied the only goal in a losing effort for the Express team in its game with the Sockers.

The Burros got back into the ball game in their half of the third inning by scoring three runs to tie the score.

Earlier in the inning, Frank Mayer drew a walk, advanced to second on a ground out to first, and scored on the hit by Cane.

The Centurions took advantage of another muffed infield fly ball to score the game-winning run in the fourth inning.

Bell, who had two hits in three times at bat (including a home run that accounted for two runs) was the leading hitter for Burroughs.

Steve French, the Centurions' winning pitcher, was the 1978 Golden League "player of the year" as he helped to lead the defending league champions to a 9-2-1 record in 1978.

Final tryouts slated by China Lake Little League

Youngsters will have one final opportunity to try out for China Lake Little League teams tomorrow at Diamond 4 across from the NWC Federal Credit Union.

For youngsters between 7 and 10 years of age as of July 31, 1979, tryouts will be held from 9:30 to 11 a.m.



CHALK UP A SCORE — Clinton Caffee, goalie for the Timbers, couldn't handle this shot by Scott Piri of the Strikers, who tallied twice in the Strikers' 5-0 win over the Timbers.

Promotional Opportunities

and compute costs and is trained in knowledge of printing and reprographic equipment capabilities. Assists customers by determining printing or reprographic methods to be used, determines specifications, and completes task requirement documentation.

Supervisory Photographer, GS-1060-12/13 (pending classification by WFD/OCP) PD No. 7923007E, Code 235 — This position is the head, Photographic Technology Division in the Technical Information Department.

File applications for the above with Charlotte Sitkowski, Bldg. 34, Rm. 208, Ph. 3118.

Engineering Data Management Specialist, GS-301-9/11, PD No. 7923030E, Code 33594 — This position is located on the staff of the Electromechanical Division, Fuze and Sensors Department.

Clerk-Typist, GS-322-3/4, PD No. 7432017N, Code 3323 — This position is located in the Advanced Technology Projects Branch, Fuze Systems Division, Fuze and Sensors Department.

Interdisciplinary, GS-9/12, (2 vacancies), PD No. 7465068-1 & 2, Code 3271 — This position is interdisciplinary in any of the following series: Aerospace GS-861; Civil GS-810, and Mechanical GS-830.

Supply Clerk, GS-205-4/5, PD No. 782507N, Code 25752 — Applications will be accepted from status eligibles. This position is located in the Receipt Matching Section Receipt Control Branch, Control Division, Supply Department.

needed to perform work at higher grade levels. All applicants will be rated/ranked against the following Job Relevant Criteria: Ability to read, comprehend, and apply written materials and to learn new procedures; ability to make decisions and accept responsibility for actions; tact and ability to accept criticism; ability to communicate orally; ability to communicate in writing; ability to do the work of the position without more than normal supervision.

Engineering Data Management Specialist, GS-301-11, PD No. 7926094E, Code 3651 — This position is located in the Data Acquisition and Control Branch, Technical Data Division, Engineering Department.

Editorial Assistant, GS-1087-5, PD No. 7931060, Code 317 — This position is in the Survivability and Lethality, Surface Targets Division, Systems Development Department.

Interdisciplinary, GS-9/12, (2 vacancies), PD No. 7465068-1 & 2, Code 3271 — This position is interdisciplinary in any of the following series: Aerospace GS-861; Civil GS-810, and Mechanical GS-830.

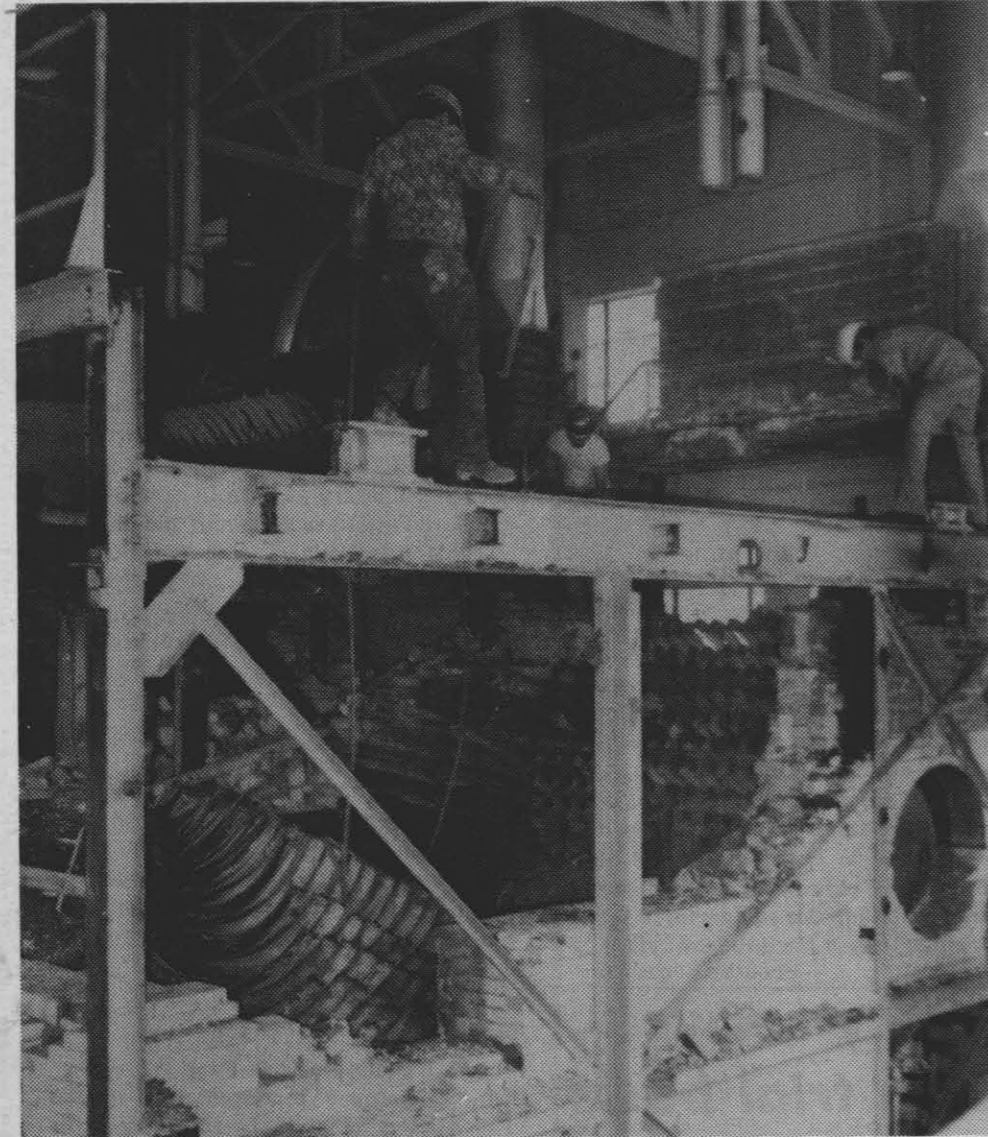
Engineering Data Management Specialist, GS-301-5, PD No. 7835178N, Code 3651, (2 Vacancies) — Positions are located in the Data Acquisition and Control Branch, Technical Data Division, Engineering Department.

File applications for the above with Marge Stanton, Bldg. 34, Rm. 206, Ph. 2725.

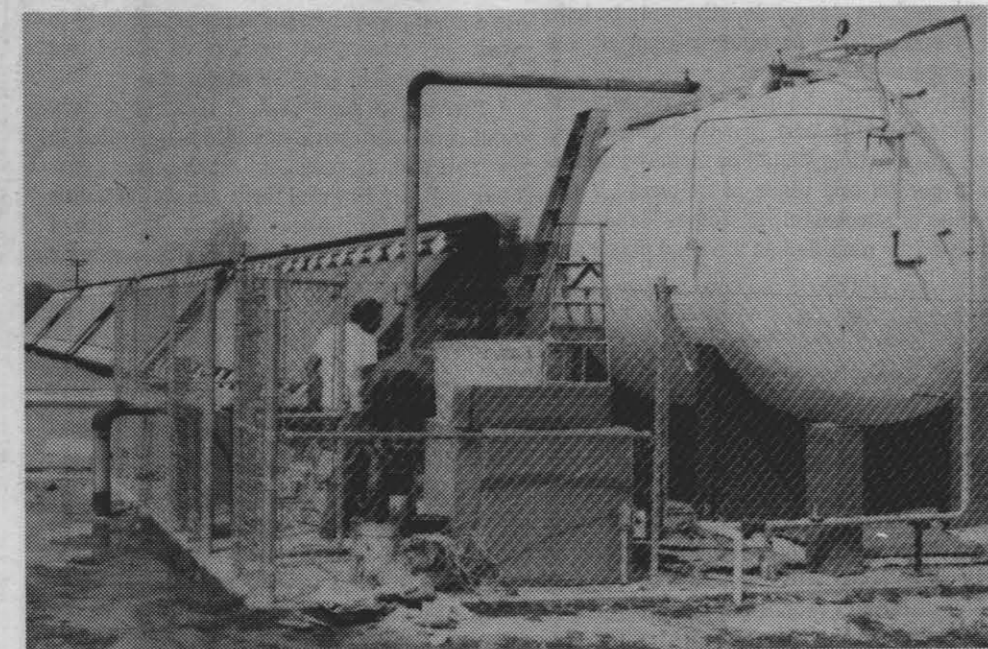
The Rocketeer Official Weekly Publication Naval Weapons Center China Lake, California. Includes staff list and contact information.

NAVY WEAPONS CENTER CHINA LAKE, CALIFORNIA. Includes church and service schedules for Protestant, Roman Catholic, and Jewish denominations.





**OUT WITH THE OLD** — Boilers in boiler plant 2 are being torn out prior to replacement with a new, more efficient unit. When the new unit is installed, boiler plant No. 1 located behind the Center gym will be closed. The consolidation of the two boiler plants and the new units are expected to result in savings of 58,630 million BTUs of energy a year. —Photos by Ron Allen

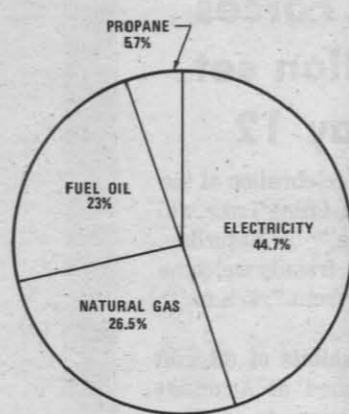


**WRAPPING IT UP** — Final insulation is applied to the water tank heated by the 120 panels of the solar energy unit behind the branch clinics of the Naval Regional Medical and Dental Centers. The energy unit is designed to provide 70 percent of the clinic's heating needs, all the hot water requirements, and most of the energy needed to operate the building's air conditioning. The hot water is used to operate the air conditioning system's absorption generator, which is part of the air conditioner's refrigerant circulation system.

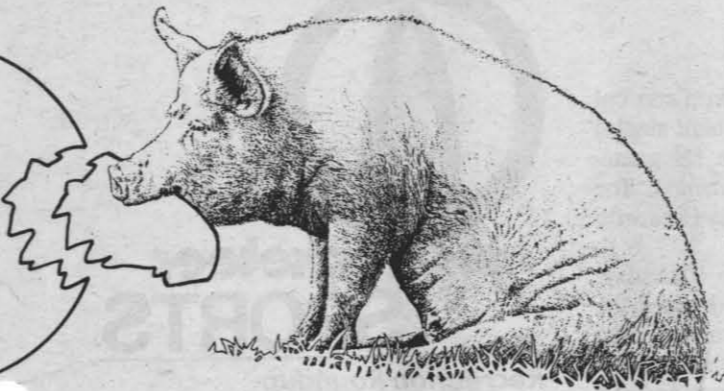
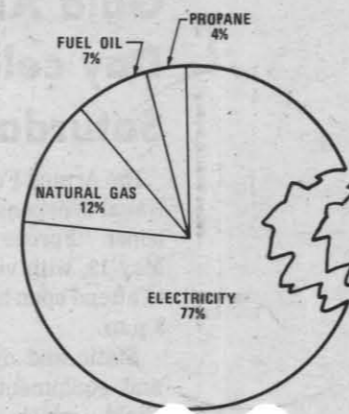
**MAJOR ENERGY FUNCTIONS AT THE NAVAL WEAPONS CENTER (Estimates)**

	Percent of Total Electricity Used	
	Winter	Summer
1. Lighting (interior)	40	30
2. Air conditioning	20	35
3. Water pumping	10	10
4. Evaporative cooling	9	9
5. Space heating	9	—
6. Computers	8	6
7. Electronic equipment	4	2
8. Night security lighting	2	1
9. Altitude chamber and high rate test equipment	1	1
10. Mechanical equipment (generators, air compressors, etc.)	1	1
All other energy users	5	5

**MAJOR ELECTRICAL USERS** — The total energy load for December is 180,000 MBTUs; for August, it is 130,000 MBTUs. The drop in total usage, however, does not represent a drop in cost because it is the use of petroleum fuels that is diminished in summer while the amount of electricity rises dramatically from its December load of 80,000 MBTUs to an August total of 105,000 MBTUs. Electricity is more than four times as expensive as the other energy sources.



**ENERGY HOGS** — More electricity than any other energy source is used at NWC; this is in part a result of the type of equipment needed for an R&D activity. Complicating the Center's usage problem is the added factor of cost since electricity costs more



than double the cost of propane for the equivalent number of million BTUs, and about four times as much as natural gas or fuel oil. Electricity used during peak hours must also be paid for at an accelerated rate, adding to the cost.

**Energy shortage mandates**

**FAT MUST BE TRIMMED FROM ENERGY HOG**

An immediate 5 percent cut by Federal facilities in usage of energy for 1979 in relation to the amount used last year has been mandated by a Presidential directive. This cut is needed because of a shortfall of oil. A long term goal of a 20 percent reduction to be attained in the 1975 to 1985 decade was previously mandated and must also be achieved.

This long term goal, for NWC, means that the energy saved each year would be the equivalent of 12,837,410 kilowatt hours of electricity annually, which would be enough to take care of the electric needs of the average house for about 1,700 years.

A 5 percent cut for 1979 will be a challenge because 1978, the base year against which the cut is to be measured, had an unusually mild winter. This winter was sufficiently colder so that energy use for the year has been up 10 percent. A dramatic reduction for the rest of 1979 will be needed to meet the mandated goals.

**Goals Can Be Affained**

Preliminary calculations made by personnel of the local Energy Conservation Office show that the 5 percent goals can be attained by a rigorous adherence to the standards of temperature and lighting established in the ALNAV message signed by Secretary of the Navy W. Graham Claytor, Jr.

Permitting room temperatures to rise even a few degrees above those formerly considered optimum before turning on cooling systems will contribute to a marked energy reduction because of the number of days that cooling systems are operative.

Cooling in some buildings is actually needed all year because the larger buildings generate sufficient heat to require daytime cooling even though heat is needed at night in winter. In the summer the maximum temperature in Michelson Laboratory, for instance, is reached at approximately 9 p.m.

In addition to turning building thermostats slightly higher during the summer and cutting the amount of time individual air conditioning units are used, evaporative coolers must be used wherever possible because they require only one-tenth the power outlay needed by air conditioning units.

**Lighting Standards Set**

Interior lighting is a prime user of electricity. Public Works Department personnel have initiated a program to measure the amount of light in all working spaces and passage ways to reach the mandated lighting standards of 50 foot-candles in nonworking areas.

After measuring the actual amount of light in each working area on the Center, any excess lights will be removed and existing lights moved to provide maximum effectiveness for each fixture. Exceptions to the mandated guidelines will be made for anyone with a special medical problem.

Centerites who work near windows admit adequate light are asked to leave office lights off, and all room lights should be extinguished in empty rooms. If a room is to be empty for 5 minutes or more, according to Southern California Edison Co., turning off all lights will save money as well as electricity. Lights wear out in proportion

to the number of times they are turned on and off; the cost of energy now has risen to a point that the extra wear and tear on bulbs and tubes is justified by the saving in energy usage.

Exterior and recreational lighting are also slated for reduction. Already funded is the replacement of

incandescent street and exterior lights with mercury vapor luminaires. Present recreation facility lights will be replaced with more efficient metal halide luminaires.

A meeting with leaders in organized team sports was held recently to gather information about what lighting is necessary for the sports program. Using this information, the Recreation Council adopted standards for managing lights at the recreation facilities. These standards will be covered in an article in next week's Rocketeer.

As well as these very visible changes in the Center's lighting, other energy saving actions are also underway or planned.

**Building Retrofits Underway**

Building retrofits include replacement of boilers with more efficient units, steam driven pumps, installation of heating system return ducts and tie-ins in some Salt Wells area buildings, and installation of interior finish and insulation in other buildings.

Obsolete, inefficient, or deteriorated components of the Center's water storage and distribution system are being replaced.

"Smart" sensors are being studied that will maximize the innate characteristics of the buildings by turning off heating and cooling at appropriate times. Eighty-eight time clocks have already been installed for next winter to shut off heat in buildings during nonworking hours. A pilot project is underway to provide similar controls for summer cooling, possibly by using the same devices.

Facility repairs to bring buildings and equipment up to peak operating efficiency are also expected to effect a considerable energy saving. All new construction on the Center will be planned so that it can be retrofitted for alternate energy sources.

**Future Plans Made**

Developing technologies will be put to use in the future, with a proposed project to install solar panels on housing units to heat or preheat domestic water already under consideration.

Photovoltaic arrays are going to be used to provide electricity to remote areas or to recharge electric vehicles. NWC has already been given cognizance over the Navy energy vehicle test program, with 15 electric minivans scheduled for trial use at the Center and others to be placed at other Navy facilities.

The necessity to reduce energy consumption is real, as clearly described in the message from Secretary of the Navy Claytor. Much fat can be trimmed from the energy hogs without affecting standards of health or safety. This must be done. Each Centerite can contribute by conscientiously following Navy guidelines, and by using the ingenuity for which personnel at NWC are noted.

*As a result of the current world shortfall in oil production, the President has directed executive departments and agencies to take significant and immediate steps to reduce the use of petroleum derived energy. A specific Department of Defense goal of an immediate five percent reduction in shore facilities and administrative energy consumption has been established. Activity commanders are directed to take innovative and positive measures to reduce energy consumption while maintaining mission readiness. Actions to be taken include, but are not limited to:*

*A. Rigid enforcement of federal heating standards: 65 degrees day and 55 degrees night; for bachelor quarters 68 degrees; and for family housing strongly encourage occupants to maintain 68 degrees.*

*B. Reduction of electrical use, in particular strict compliance with lighting standards: 50 foot candles at work stations, 30 foot candles in work areas, 10 foot candles in nonworking areas.*

*C. Strict control on use of ground vehicles: consolidation of trips; central dispatching vice standing vehicle assignments.*

*D. Aggressive pursuit of energy awareness programs, particular emphasis to be applied to heightened energy awareness among family housing occupants and to carpooling programs.*

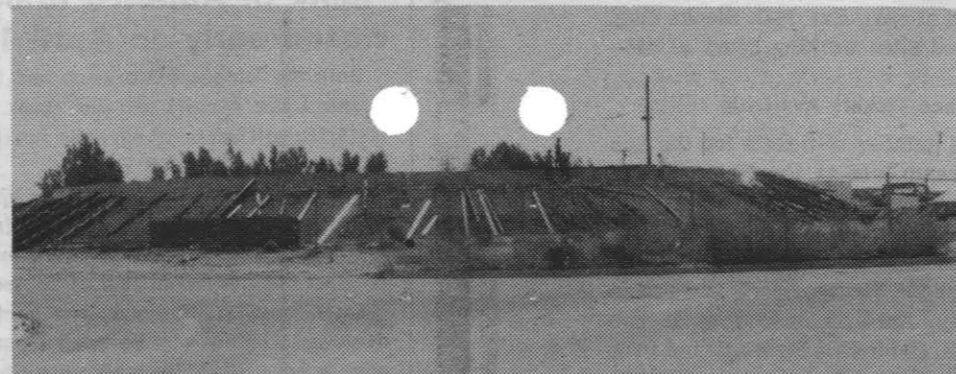
*E. Use of alternate fuel such as natural gas and coal is directed where feasible and environmentally possible.*

*Specific reductions in activities that affect operational readiness such as flying hours, ship steaming hours, and ground operations are not mandated at this time; however, commanders are directed to exercise all possible energy economies consistent with maintaining operational readiness.*

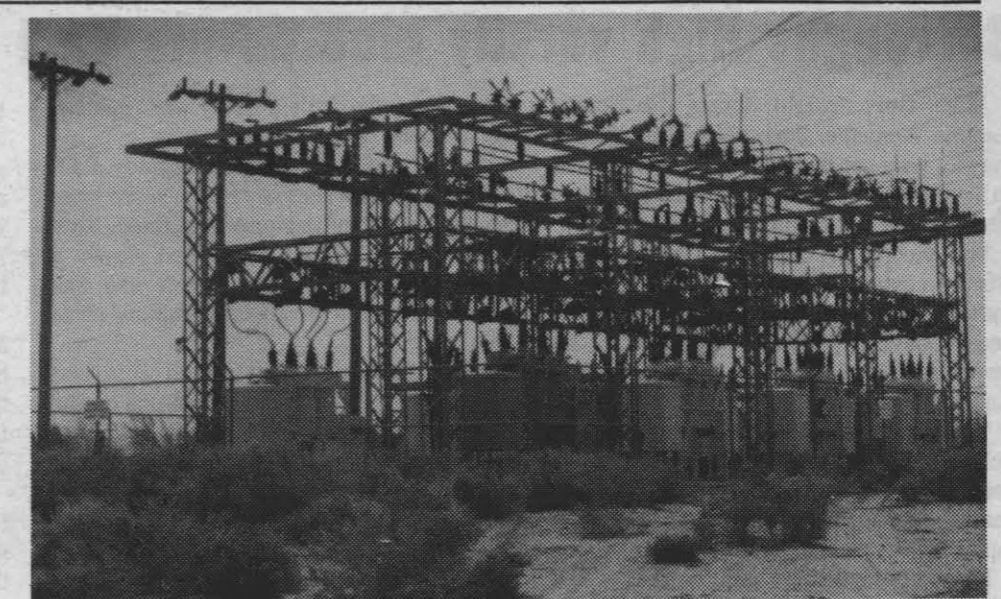
*Achievement of the directed five percent reduction will be measured through DEIS II data as compared to FY78 consumption and results will be reported to the President through the Federal Department of Energy.*

*This situation highlights the precarious energy posture of the United States and serves to emphasize the urgent need to reduce our nation's dependence on imported petroleum. The Navy is a leader in energy programs and we expect to meet this challenge with positive leadership and measurable results.*

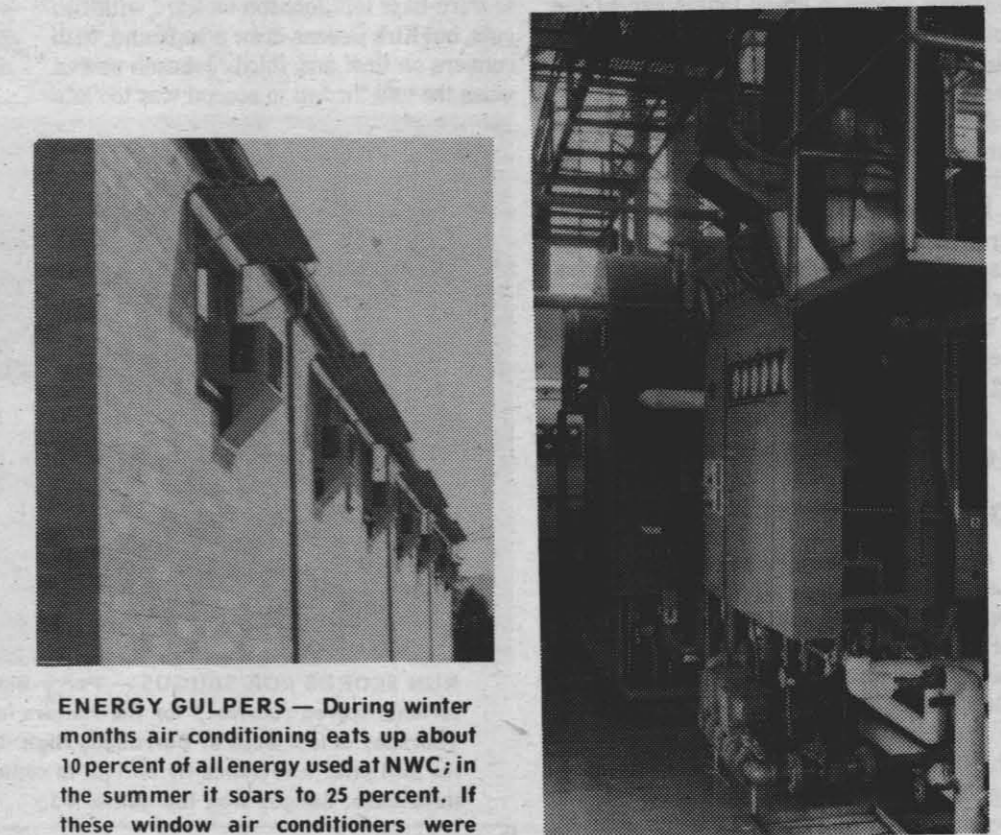
*W. Graham Claytor, Jr.  
Secretary of the Navy*



**UPGRADING SYSTEM** — Wooden covers on the water storage tanks are being replaced with aluminum covers in a general upgrading of the Center's water system. Savings of \$50,000 to \$60,000 in energy costs a year are expected as a result of improvements in the pumping, line, and reservoir system, as well as significant improvement in overall safety and maintenance. New diesel motor generators are also being added in the Randsburg Wash area for emergency pumping in case of fire there.



**DISTRIBUTION POINT** — Power coming from Southern California Edison Co. lines is distributed throughout the Center through various substations like the Michelson Laboratory West station. Peak Center demand is 18,000 kilowatts; peak hours are noon to 6 p.m.



**ENERGY GULPERS** — During winter months air conditioning eats up about 10 percent of all energy used at NWC; in the summer it soars to 25 percent. If these window air conditioners were evaporative coolers, they would use only about 10 percent of the energy they now require. Permitting room temperatures to rise only a few degrees above former standards would make a sizable difference in the Center's total energy consumption.

**STEAM PRODUCER** — Nearly a quarter of the steam produced on the Center comes from the Salt Wells area boiler plant. Heating system return ducts and tie-ins newly installed in seven Salt Wells area buildings will result in energy usage saving in that area.

**Energy diet guide**

(Based on average cost of 54 per kilowatt-hour)

APPLIANCE	Kilowatt-hours used per year	Cost per year	Cost per month	APPLIANCE	Kilowatt-hours used per year	Cost per year	Cost per month
Air Conditioner (window) EER 6.2 (for each ton)	1,800	\$90.00	\$30.00	Lighting	360	\$18.00	\$1.50
EER 8.0 (12,000 BTU rating of unit)	1,417	70.86	23.62	TV Instant-On Feature	240	12.00	1.00
Water Heater	4,219	210.95	17.58	Humidifier	163	8.15	.91
Refrigerator/Freezer: 17.5 cu. ft. - frost free	2,250	112.50	9.38	Microwave oven	190	9.50	.79
12.5 cu. ft. - manual defrost	1,500	75.00	6.25	Iron	144	7.20	.60
Freezer: 16.5 cu. ft. - frost free	1,820	91.00	7.58	Coffee Maker	140	7.00	.58
16 cu. ft. - manual defrost	1,190	59.50	4.96	Radio-phonograph	190	5.45	.45
Clothes Dryer	993	49.65	4.14	Washing Machine	103	5.15	.43
Furnace Fan	647	32.35	3.59	Frying Pan	100	5.00	.42
Range	700	35.00	2.92	Radio	86	4.30	.36
Attic Fan	290	14.50	2.90	Roaster	60	3.00	.25
Window Fan	170	8.50	2.83	Trash Compactor	50	2.50	.21
Space Heater	176	8.80	2.20	Vacuum Cleaner	46	2.30	.19
Color TV	528	26.40	2.20	Toaster	39	1.95	.16
Tube Type	320	16.00	1.33	Hair Dryer	25	1.25	.10
Solid State	147	7.35	1.83	Waffle Iron	22	1.10	.09
Electric Blanket	377	18.85	1.57	Clock	17	.85	.07
Dehumidifier	363	18.15	1.51	Blender	15	.75	.06
Dishwasher				Mixer	13	.65	.05
				Heat or Sun Lamp	13	.65	.05
				Sewing Machine	11	.55	.05
				Shaver	2	.10	.01
				Tooth Brush	1	.05	.01

**PRIVATE USER COSTS** — The cost average of 5 cents per kilowatt-hour is about what a residential user of electricity must pay. The same care that home owners use to cut monthly electrical bills must also be applied on the job, not only to save actual costs, but to save the needed energy itself.