

EARLY CELEBRATION — Members of the Laubach Literacy class whose emphasis is teaching English to those born in other nations met last Thursday evening at the Immanuel Baptist Church for a

Thanksgiving dinner. Along with learning the intricacies of reading, writing and speaking English, the course is designed to teach immigrants aspects of American culture. — Photo by PH2 Rick Moore

Applications sought for scholarships

Applications are now being accepted by the Desert Community Orchestra Association for two 1987 music competitions: the Peter Pinto Young Artist Scholarship Competition for solo musicians and the Peter Pinto Memorial Ensemble Concept Competition for groups of two or more performers.

Non-professional soloists, either vocal or instrumental, who are up to 22 years of age can compete for the first. The winner will receive a monetary award and will be featured in a regular series concert on March 15. Solo musicians interested in

competing should get in touch with LouAva Seybold, chairman of the Scholarship committee, at 375-7455. Other committee members are Ron Burdick, 373-4672; Beaujorn Shull, 446-5128; Andy Victor, 375-2375; and Mary Bischel, 375-4207.

Applicants must obtain Scholarship Committee approval of their proposed musical selections before submitting their applications, for which the deadline is 7 p.m. on Jan. 5. Applications may be delivered to a member of the committee or sent to DCOA, P.O. Box 1988, Ridgecrest, CA 93555.

Applicant interviews and auditions will take place on Saturday, Jan. 10.

Auditions for the ensemble competition will be held on Saturday, Jan. 24. These are open to groups of Ridgecrest-area musicians of any age. Auditioning ensembles must provide their own scores and instruments other than a piano. The winning ensemble will perform with the orchestra on Sunday, Feb. 8.

Anyone interested in further information about the ensemble competition may contact the coordinator, Gordon Wilcher at 446-2060.

Rec Services offers 2 special holiday passes

"Holiday With Us," a promotion package established by NWC's Recreation Services Department for dependents of military and DOD civilians, enables college students to purchase a \$5 pass good from Dec. 21 to Jan. 4.

The pass will allow the student \$5 off on a lunch or dinner at any one of the three Messes; one day free green fees at the China Lake Golf Course; one free stall usage and one hour free hoist usage at the Auto Hobby Shop; unlimited use of the indoor pool/gymnasium; half price on lane fees at Hall Memorial Lanes; free admission and skate rental at the Youth Center on Saturdays and Sundays from 12:30 to

4:30 p.m.; and a 5% discount on resale items at the Craft/Hobby Shop.

A special Christmas package for 12-17 year olds has been designed by the NWC Recreation Services Department. The Youth Activities and Sports branches will offer a pass good for unlimited use of the following facilities and activities from Dec. 21 to Jan. 4 for only \$10.

1. Roller Skating: Saturdays and Sundays from 12:30 to 4:30 p.m. at the Youth Center.

2. Indoor Pool: Mondays through Fridays from 1 to 7 p.m., Saturdays from 1 to 8 p.m. and Sundays from 1 to 5 p.m.

3. Gymnasium: Mondays through Fridays from 8 to 11 a.m. and from 1 to 4 p.m.

4. Bowling: Mondays through Fridays during open bowl from 11 a.m. until 5 p.m. and Saturdays and Sundays from 12 to 5 p.m. at Hall Memorial Lanes.

5. Rock 'N Bowl: A fun-filled night of bowling and dancing to music at Hall Memorial Lanes on Friday, Dec. 26 from 7 to 11 p.m.

6. Matinees: At the Center Theater on Dec. 23, 27 and 30 with the show beginning at 2 p.m.

Passes will be sold for only \$10 each beginning Dec. 1 at the Information, Ticket and Tour Office from 9 a.m. until 5 p.m. Monday through Friday. Call NWC ext. 2010 for more information.

Pre-holiday seminar for babysitters scheduled Dec. 2

The Safety and Security Department is presenting a pre-holiday babysitting seminar for young adults ages 12-18 years.

Topics include "Medical Emergencies," by LCDr. Dorothy Michael of the Branch Medical Clinic; "Keeping the Home Secure," by Detective Stanley Austin from the China Lake Police Division; and "In the Event of a Fire," by Inspector Ken Zurn of the Fire Division.

The seminar will be held on Tuesday, December 2, 6 to 8 p.m. at the east wing of the All Faith Chapel.

There will be a film "Hot Liquid Burns" following a 15 minute refreshment break. For more information call Inspector Zurn, NWC ext. 2146.



Annual meeting of the China Lake Astronomical Society will be Monday at 7:30 p.m. at the Kern County Library, 131 E. Las Flores in Ridgecrest. In addition to holding election of officers for 1987, the thrust of the meeting will be "show and tell" for members who can show off the gadgets they use in pursuing their interest in astronomy.

Everyone interested in astronomy is invited to attend.

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During the month of December, local artists will exhibit their work at the Sylvia Winslow gallery of the Maturango Museum. The display begins Monday, Dec. 1; a reception honoring artists and designers will be held on Sunday, Dec. 7 from 2:30 to 4:30 p.m.

About 70 original paintings and drawings will be displayed. Some of these will be on sale, with the proceeds benefiting the artists.

In addition, the Desert Design Study Group will exhibit dried flower arrangements that will be for sale. Part of the proceeds from these sales will benefit the museum.

Musique L. A. appears here

Musique L. A. (actually, Brice Martin on the flute and Natalie Dalschaert on the piano) will present the second concert of the Indian Wells Valley concert Association on Thursday at 7:30 p.m. at the Center theater.

Both bring superb technique and musicianship to their program, which includes such favorites as Francis Borne's "Carmen Fantasy," Bach's "Jesu, Joy of Man's Desiring," Harold Arlen's "Over the Rainbow," and Claude Bolling's "Suite for Flute and Jazz Piano," among other selections.

They will also present a student program at the theater from 10 to 10:50 a.m. on Friday for children from the Sierra Sands and Trona schools. Some free seating will be available after the scheduled groups have been seated.

Tickets for the concert are \$6 for general admission and \$4 for enlisted military, and those who are under 21 or over 65. Tickets can be purchased at The Music Man, Medical Arts Pharmacy, Maturango Museum, and The Art Buffet, or those who are interested can telephone 375-5600 at any time for ticket or concert information.



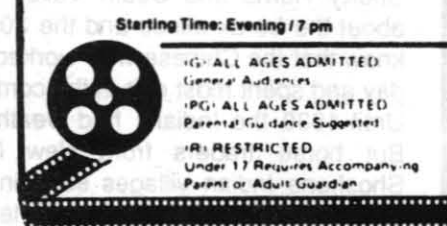
Musique L. A.

Natalie Dalschaert

Brice Martin

Movies

FRI., SAT., SUN. NOV. 28, 29, 30
"THE GREAT MOUSE DETECTIVE"
 (Animated, rated G, 74 min.)
WEDNESDAY DEC. 3
"NO RETREAT, NO SURRENDER"
 Starring Kurt McKinney
 (Martial Arts, rated PG-13, 84 min.)
FRIDAY DEC. 5
"ABOUT LAST NIGHT"
 Starring Rob Lowe and Demi Moore
 (Drama, rated R, 113 min.)



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 1986 No. 40033

FROM _____ PLACE STAMP HERE

TO _____

RIPS system facilitates range test operations RCC training key to minimizing implementation impact

Test operations on NWC ranges are being expedited by the new Range Control Center Integration and Processing (RIPS), brought on-line with minimal impact on continuous range operations. Accomplishing this feat took training of more than 100 Center personnel on RIPS before going operational.

RIPS comes into play when range instrumentation data is received for processing by the Gould Sel 32/77 seven-computer system. Each of the seven computers has a specific task, although they share a common memory. This processed real time data is then relayed to any (or all) of 11 consoles where it is displayed for the test conductor.

These consoles are located in a large test control bay, where several tests may be conducted simultaneously. Authorized spectators can witness test operations from a glassed-in seating area with a full view of all displayed data along with the related radio transmissions.

More than 192,000 lines of code make up the master software program for RIPS and this is expected to grow to about a quarter million lines of code in the future as additional functions are added.

Such a massive program is required because of the quantity of data that is processed and displayed by RIPS.

First, data is obtained from the Airspace Surveillance Center located in the RCC. The ASC monitors air traffic over NWC ranges as well as the broader R-2508 airspace to provide safety advisories for

test flights. The data is provided by the FAA from long range radars located on mountain peaks and gap fillers located in valleys to ensure complete coverage.

The Communications Center processes and distributes voice communication and range instrumentation data, essential to the real time decisions made by the test conductor during test operations.

Both the Video Center and the Metric Video Center form an essential part of the operation. Recorded and distributed in real time, video provides an excellent means of documenting and measuring test events. With the development of "shuttered video," clear images of fast moving test objects can now be produced. This stop action capability allows the Metric Video Center to perform in near real time, weapon TSPI (time-space-position information), miss-distance, impact scoring, fuze function and many other types of measurements. If the objects can be recorded, chances are good that they may be scored.

Also located in the RCC is the drone control center. With aircraft and weapons achieving ever greater speeds, being able to fly weapons against targets that are representative to tactical aircraft is essential to ensure that the weapons will function to their design capability. The drones are flown by personnel of the Aircraft Department, while most of the other RCC functions are carried out by personnel of the Range Department.

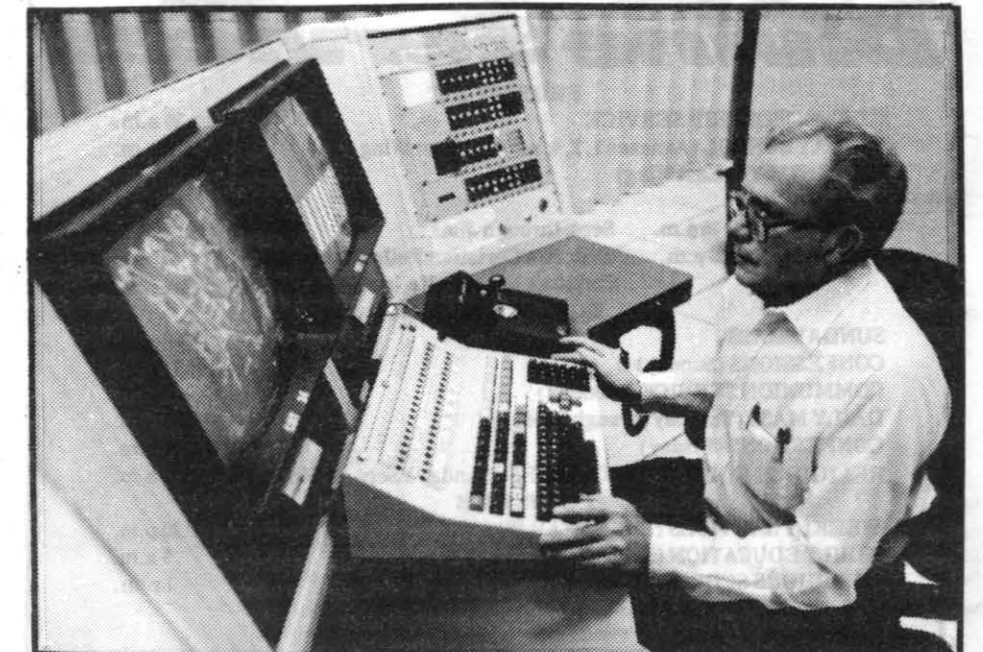
Larry Tsubakihara, head of the Range Department's Data Systems Division, says

that getting RIPS transitioned without affecting operations of the ranges proved challenging.

He and George Adair, RIPS program manager, believe that training of more than 100 personnel who have to use any part of RIPS was key to accomplishing the task.

Considering that last year the ranges brought in revenues in excess of \$9 million and this year will be even busier, shutting down the ranges even for a day can be very costly.

Adair stresses that even though RIPS is (Continued on Page 3)



OVERVIEW — George Adair, RIPS program manager, sits at one of the 11 consoles from which a test conductor can gather data and see what's happening during a test on Center ranges. Much of this data can also be displayed on screens above the console so that others concerned with the test can sit in the viewing area and see and hear what is going on. — Photo by PH2 Rick Moore

NWC shows GIDEP proficiency with 1985 award



GIDEP AWARDS — Richard Barr, GIDEP (Government, Industry Data Exchange Program) manager at NWC displays three of the four GIDEP Achievement plaques won by the Naval Weapons Center since the program. NWC used GIDEP for more than \$7 million in cost avoidance during 1985. — Photo by PH2 Rick Moore

Consistent and outstanding support from the Naval Weapons Center's technical community brought the GIDEP (Government, Industry Data Exchange Program) Achievement Award to China Lake for the fourth time since 1968.

Capt. John Burt, NWC Commander, accepted the award, on behalf of the Center, at the annual GIDEP Workshop in Albuquerque late last month. Richard Barr in the Center's Engineering Department, who manages the GIDEP program at NWC, also attended the program.

The two annual awards, one for government activities and one for industry, can be won once every five years by any given activity. In addition to the 1985 honor, China Lake walked away with the award in 1968, 1973 and 1980. Barr noted this indicates the priority given GIDEP by Center managers and technical leaders.

NWC's commitment to GIDEP is illustrated by the estimated \$7.3 million in cost avoidance at China Lake through the use of more than 4,700 GIDEP documents by the technical community.

During 1985 NWC had 33 percent of the total government cost avoidance. The

Center's GIDEP program also submitted 144 documents to GIDEP data banks for use throughout government and industry.

This time Northrop Corp. won the industrial award, realizing a cost avoidance of more than \$5 million, thanks to data from GIDEP data banks.

Barr noted GIDEP evolved in the 1960s when the Navy realized contractors were duplicating efforts in testing parts for Polaris submarines. The Navy developed a data exchange program between contractors, a program that proved to be so effective in avoiding duplication of costs, that the Interagency Data Exchange Program (IDEP) was begun in 1966. The program was opened to all government contractors, consultants and universities in 1970. Today GIDEP has more than 800 participants, including more than 190 government facilities and organizations.

GIDEP is designed to reduce or eliminate duplicate spending, increase quality and reliability, provide advance notification of potential problem areas, identify alternate (Continued on Page 3)



	Max	Min	Peak Gust
Fri.	74	42	16 knots
Sat.	73	38	11 knots
Sun.	69	42	20 knots
Mon.	72	34	10 knots
Tues.	72	38	28 knots
Wed.	—	32	22 knots
Thurs.	70	34	8 knots

All measurements are made at Armitage Airfield.

All-hands Christmas celebration billed Dec. 20

All personnel — military enlisted and officers, civilians and contractors — are invited to attend this year's all hands Christmas party on Saturday, Dec. 20 at the Enlisted Mess.

The evening will start with a social hour at 6 p.m., followed by a three-meat buffet dinner at 7:30 and dancing to the toe-tapping music of the Blue Star Bandits, an orchestra from Lancaster, from 9 p.m. until 1 a.m.

Along with the music, there'll be special door prizes given away throughout the evening.

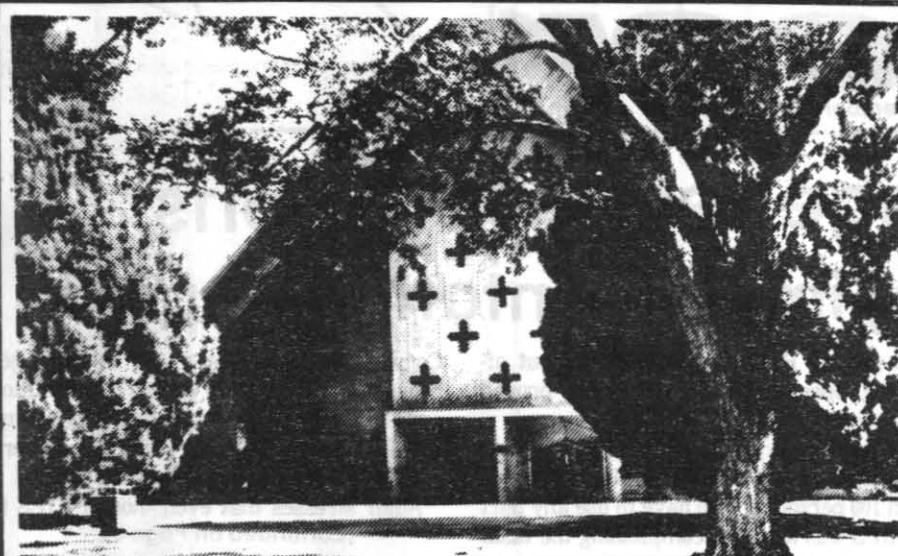
Menu for dinner consists of beef, turkey and ham; a tossed green salad with ranch-style dressing; mashed potatoes and gravy; green beans and carrots; a dinner

roll; and coffee and decaf or tea, both hot and iced.

Tickets are \$7.50 for enlisted personnel and their spouses or dates, \$9.50 for chiefs and their spouses or dates and \$11.50 for officers, civilians and contractors and their spouses or dates. Tickets can be purchased in advance from the Protocol Office in the lobby of Michelson Laboratory, from the

Public Affairs Office in the Headquarters Building, from Lt. J.g. Marty VanDerKamp in the Military Administration Department building, from ACI Kim Rusk at Airfield Operations in Hangar 3 and from the First Lieutenant's Office in Hangar 3. They can also be purchased at the door on the evening of the party.

Appropriate dress for the evening will be desert casual (but no jeans).



Divine Services

PROTESTANT
SUNDAY WORSHIP SERVICE 10:30 a.m.
SUNDAY SCHOOL (Annexes 1, 2, 4, and the East Wing) 9 a.m.
BIBLE STUDY (East Wing)

Wednesday 11:30 a.m. Sept. through June
 Thursday 7:00 p.m. Officer's Christian Fellowship
 Christian Military Fellowship
ROMAN CATHOLIC

SUNDAY MASS 9:00 a.m.
CONFESSIONS (Sunday) 8:15-8:45 a.m.
COMMUNION SERVICE (Monday) 11:35 a.m.
DAILY MASS (Tuesday through Friday) 11:35 a.m.
CONFESSIONS (Friday) 4:30-5:00 p.m.
RELIGIOUS EDUCATION CLASSES (Sunday) Sept. to May 10:30 a.m.
JEWISH
WEEKLY SERVICES (Friday, East Wing) 7:30 p.m.
ADULT EDUCATION (Saturday, Annex 4) 9 a.m.
RELIGIOUS SCHOOL (Sunday, Annex 4) 1 p.m.

Chaplain J. Milton Collins, Capt. CHC USN
 Chaplain A. J. Smith, Cdr. CHC USN
 Chaplain C. R. Bower, Lt. Col. CHC USN
 Hearing impaired equipment available. Nursery available.
 Phone NWC ext. 3506, 2713

Blood pressure a concern to people of all ages

WASHINGTON (NES) ... When Linda Ann Powers of Richmond, Va., realized her 16-year-old son David had high blood pressure, she said she was terrified. "He had no symptoms, he wasn't dizzy ... it all seemed so ordinary," she said. But a routine physical examination for his high school football team last summer indicated that he had a mild case of hypertension. David was devastated. How could an athletic 16-year-old have high blood pressure?

David is not alone. High blood pressure does affect young people. Recent studies indicate that about 5 percent of U.S. children have high blood pressure which will remain high into adolescence and adulthood.

Hypertension is the nation's most widespread cardiovascular health problem, yet nearly half of the almost 58 million Americans, adults and children, who are affected by high blood pressure don't know it.

Blood pressure is the force of blood against the walls of arteries, created as the heart pumps blood and rests between beats. When pressure in the arteries increases, the heart must work harder than normal to push blood through the arteries. This may contribute to strokes, heart attacks, congestive heart failure, kidney damage and arteriosclerosis, the process of which arteries become narrowed and less elastic.

Occasionally, high blood pressure is

caused by other diseases, but the most common form of high blood pressure, called "primary" hypertension, has no obvious cause. Studies have shown that the tendency toward high blood pressure may be inherited. No unusual symptoms are associated with the condition — the only way to determine high blood pressure is to have it checked periodically.

In addition to recommending yearly blood pressure check-ups, the American Heart Association urges parents to promote heart-healthy habits in children and teenagers by helping them to maintain ideal weight and fitness. One way is for parents to prepare foods without adding salt and to encourage children and teenagers to eat less processed foods, which tend to be high in sodium.

Drugs such as alcohol, amphetamines, diet pills and many street drugs have a tendency to raise blood pressure and doctors have determined that taking oral contraceptive pills is associated with high blood pressure in some women.

Untreated high blood pressure can be dangerous. It can damage the heart, brain and kidneys. "In adolescents and children with high blood pressure," said Dr. William M. Miller, a Richmond pediatric cardiologist, "it is expected that effective pressure control with drugs should diminish or delay heart and blood vessel disease when they become older."

Life style available at China Lake very appealing

Seeing an advertisement about China Lake that looked interesting at a time when he was contemplating a job change inspired Tom Roseman, a computer specialist in the Data Management Branch of the Information Systems Group, to send an SF-171 to NWC about two years ago. He says that he's very glad he did.

"I was just finishing a master's degree in business information systems at Georgia State University while I was working for the Army Forces Command in Atlanta," he says, "and, since I'd spent a total of 13 years with the Army both on active duty and in Civil Service, I thought that was a good time to make a change."

In a way, he notes, he's had several career changes before he got as heavily into computers as he now is. He was working toward an engineering degree while he had an ROTC scholarship at Virginia Tech during the Vietnam era; after three years as an engineering major, he switched to sociology and got his degree in that subject before going on active duty with the Army.

"Since the Vietnam conflict ended about the time that I graduated, I spent most of my active duty time in Germany," Roseman says. When he got out of the service, he became an intern in inventory management (which, he notes, was just a fancy name for supply operations) in Colorado. On completion of the internship, the Army then moved him to Atlanta to work in logistics.

After he and his wife, Ann, moved to Atlanta, he began taking graduate classes

at night — about 75 percent of which dealt with computers and the rest with management. "What impressed me about China Lake," Roseman adds, "is that where I was, they gave lip service to good management. Here, the concern about people is real."

He's also enjoyed his heavy involvement with computers because, he notes, "I've always liked puzzles and problems."

Another factor about the move west that he's thoroughly enjoyed is the life style that is possible in the Indian Wells Valley. He and Ann wanted to move their two children, Megan, 7, and Birk, 5, to a small town, feeling that a small town was a better place to raise children than a big city.

It's had other fringe benefits, also, Roseman says. For instance, he rides his bicycle to work each day instead of having to spend an hour commuting to and from the job site. ("I've even figured out a way to ride to work in 15 minutes without having to brave the main gate," he notes with pleasure.)

Since he enjoys playing tennis and skiing, the proximity to the courts and the mountains was also a drawing card. Since he and his family have lived here, he's become active with the China Lake Mountain Rescue Group, "a good way," Roseman says, "of combining public service with something that you enjoy."

All in all, he notes, the move to China Lake has lived up to all that he hoped it might be — and he plans to be around for some time to come.

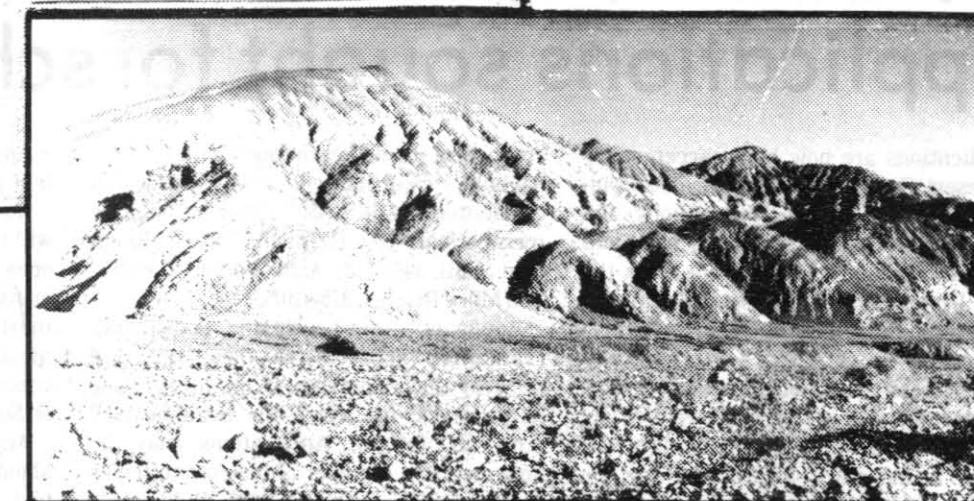


EASY COMMUTE — One aspect of working at China Lake that Tom Roseman really enjoys is being able to ride his bike to work rather than spending an hour each way day commuting in his car.

Death Valley's features ensnare many visitors



STRANGE SCENES—One of the few places in the world where visitors can see massive sand dunes, mountains, rugged salt deposits and be more than 200 feet below sea level is the Death Valley National Monument. From Scotty's Castle in the north to Furnace Creek and from Badwater to Telescope Peak, Death Valley offers unique vistas and the driest climate in the western hemisphere. All in all, it's not a bad place for visitors to say they've experienced.



An automobile trip through hell is certainly different. A 1907 advertisement in the Death Valley Chuck-Walla touted just such a trip. The ad said the trip "has all the advantages of hell without the inconveniences."

There is no better time to visit Death Valley National Monument than now or the winter months ahead.

An easy day-trip (or longer) from China Lake, the monument is a unique environment, encompassing the lowest point in the United States, more than 250 feet below sea level and Telescope Peak, more than 11,000 above sea level.

Allegedly named by someone in the Bennett-Arcan party, rescued from near starvation in February of 1850, Death Valley is the hottest, deepest dry spot in the western hemisphere. It is also the driest place on the continent, averaging less than two inches of rain a year since records have been kept.

Established as a national monument just 53 years ago, Death Valley today is almost synonymous with heat, dry weather and desert. The highest temperature ever recorded, more than 130 degrees, was in Death Valley. Most visitors see only a brief glimpse of the monument. They stop at Scotty's Castle, peer into Ubehebe Crater, get a cold drink, food or trinket at Stovepipe Wells and have their photograph taken in front of the sign at Badwater.

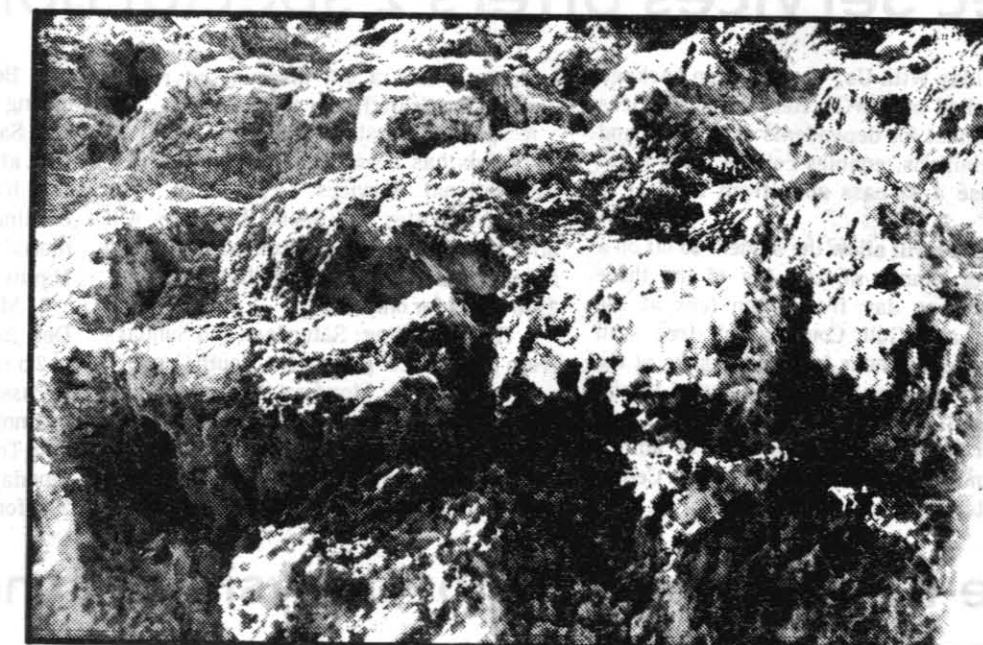
Many also enjoy the relative luxury that can be found at Furnace Creek. From a manicured 18-hole championship golf course, to gourmet meals and fine lodging at Furnace Creek Inn, this oasis in the desert is a natural stopping place for tourists.

Few take the trouble to learn about the Montgomery Brothers who were responsible for Death Valley's own gold rush in the 1890s or other prospectors including Shorty Harris and Death Valley Scotty. They will hear about the borax mines and the 20-mule teams, but won't know that the Chinese who worked the mines got \$1.50 a day and spent most of it at the company store.

Until 1830 the Indians had Death Valley to themselves. But horse traders from New Mexico began visiting Shoshone Indian villages early in 1830, opening up the Spanish Trail that would later lure gold-hungry adventurers into Death Valley and make it famous as the place on earth most like hell.

From China Lake the quickest way to Death Valley is Highway 178 to Trona and then the Panamint Valley Road to Wildrose Canyon Road (when open). An alternate route stays on Panamint Valley Road until it intersects Highway 190 from Olancho and then over Towne Pass to Stovepipe Wells.

Death Valley is unique and no long stay at China Lake is really complete without at least a brief visit to scratch the surface of this land laden with history.



Photos by PH2 Rick Moore

NWC Rocketeer

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Kids finished fall youth soccer season Saturday

Youth soccer season at NWC came to a close Saturday when all 16 teams were in action. The two-month-long soccer season now gives way to youth basketball activities.

Space limitations and an early deadline for this issue of the *Rocketeer* dictate a shortened form of soccer coverage for the season finale.

Roughnecks 1, Surfs 1

Jimmie Cribb was the leader for the Roughneck effort. Dennis Sarrett, Miles Ross, Tom Foisy and Doug Harris led the Surfs.

Whitecaps 2, Kicks 0

Jerry Green, David Fowler, John Trahey, Paul Solem and Damon Kelling led the Whitecaps. Kris Carter, Tom Ruane and Todd Redmond led the Kicks.

Rogues 3, Sounders 2

Lynett Barnett, Brett Ward and Adam Schwartz were leaders for the Sounders. Mike Ogren, Doug Wilson, Dwight Mason and Dennis Robinson led the Rogues.

Cobras 1, Roadrunners 0

David McCuley, Kevin Nowicki, Gary Hobson and Jeromy Ellingson led the Co-

bras. Nathan Mickelsen, Chris Moore and Adam Freund paced the Roadrunners.

Rowdies 1, Chiefs 0

Salvador Ramirez and Blake Harden keyed the winners. Brett Trahey, Jeremy and Cheryl Wiegert, Brian Armstrong, Jeb Pershing and Joe Kruschke paced the Chiefs.

Fury 1, Sun 0

Robert Green, Tommy Yeager, Jared Hemingway and Curtis Allen led the victory. Sam Miles, Brandon Coyne and Andrea Falk keyed the Fury effort.

Eagles 3, Bandits 0

Top players for the Eagles were Kevin Cornett, Nick Charlton, Meg Frisbee and Joey Melton. Willie Robesky, Brad Sim-

mons, Justin Martin and Mike Kelly led the Bandits.

Diplomats 4, Tornados 0

Steve Sticht, Doug Eberhart, Jon Rax and Charles Wiles paced the Diplomats. Brian Hire and Matt Frazier keyed the Tornados effort.

Coyotes 1, Owls 1

Matt Armstrong, Brett Thomsen, Teah Harriot and John Read led the Coyotes. Adam Schoenberg, Jeff Robbins, Rory L'Hommedieu, Jonell Hopek, Justin Cerne and Andrew Hernandez led the Owls.

Sockers 0, Drillers 0

Avak and Vasken Haroutunian, Jason Ghormley and Adam Summers keyed the Sockers. Neil Covington and Jon Wood paced the Drillers.

Apollos 0, Express 0

The Express was led by Justin Agree, Justin Weidenkopf, Peter Greedy and Willie Reymond. The Apollos were paced by Bill Nelson, David Rollingson, David McGowan, Brian Spies and Chris Lovett.

Earthquakes 3, Blizzard 0

Warren Reihm, Keith Bruce and Jesse Beines led the Earthquakes. Jessie Lewis, Kendra Sharon and Ray Gonzalez led the Blizzard.

Lancers 5, Cosmos 1

Mark Castillo, Danny Hartley, Dave Ebert, Brian Lee and Danny Lahey led the Lancers. Nick Pritchard, Aaron Cuevas, Michael Hobson and Joe Mechtenberg paced the Cosmos.

Sting 0, Strikers 0

Akini Garrett, Lacey Cordell, Augstin Hernandez, Greg Zwierzchowski and Michael Grise paced the Sting. The Strikers were led by David Prince, John Hopek and Travis Caddell.

Aztecs 4, Timbers 0

Renee Armstrong, Michael Ross and Michael Frederick keyed the Aztecs. Jimmy Haynes and Steve Ramirez led the Timbers effort.



Sports

Basketball sign-ups continue

Signups for the 1987 NWC Youth Basketball League are being accepted through Dec. 5 at the Recreational Services Department's Information Ticket and Tour Office. The office is open for registration from 9 a.m. to 5 p.m. Monday through Friday.

The league is open to youths seven to 17 years of age.

Players who did not participate in the 1986 league will be required to attend a skills evaluation. Evaluation session are scheduled Dec. 9, 11 and 13. For additional information on the 1987 Youth Basketball League call the ITT office at NWC ext. 2010.

Websters cop title

Danny and Nancy Webster walked off with "A" division honors when the China Lake Tennis Club held a mixed doubles tournament last Saturday. They defeated the team of Rex Ribultan and Suzanne Hancy, 6-4, 6-4. Steve Lyda and Julie Hall were "A" division consolation winners.

Mixed "B" honors went to Mike Flatebo and Lauri Scharf who downed Tim Higgins and Jessie Russel in three sets. Steve Nyland and Sandy Lyda won the consolation round.

Also on Saturday the club presented the parents of Gary Haugen a check for \$500 for the Gary Haugen Memorial Scholarship Fund. The club sponsors a memorial fundraising tournament each year for this cause.

Few bass

Bass fishing in the Owens Valley has shut down for the year because the weather and water are now too cool to catch any of these fighting beauties.

Trout fishing is also very slow in the Owens River south of Pleasant Valley Reservoir. A few anglers have caught a few fish, but most anglers discovered that while the fishing was fine, the catching wasn't.

Chukar hunting is also very slow, and duck hunting ranges between slow and nonexistent.

Women, men split cage games

Ball control basketball and superior size proved a winning combination for the Ft. Irwin Pioneers when they stopped the NWC Varsity basketball team, 124-107, in last Saturday's season opening game at the NWC Gym.

Percy McAdoo ripped the nets for 38 points to lead the NWC team. Sunday they will be at Edwards AFB for a game.

The NWC Women's Varsity team took a 66-48 win from Edwards AFB to boost their season mark to 3-0. Jean Bormett led the win with 15 points. Cecelia Scanlon and Joan Nash controlled the boards.



SEASON FINALE—Youth Soccer League play at the Naval Weapons Center ended Saturday with all loop teams involved in their final outings of the 1986 season. The next youth sport, basketball, begins in early January.

Scorpions split pair in Bakersfield

Splitting a weekend twin-bill, the under-14 Scorpion soccer team boosted their season record in the Golden Empire Soccer League to 3-6-4, good for sixth place standing in the eight-team league.

They lost to the Sting 1-0 in the opener and came back to rip the Cobras 10-3 in the nightcap. Against the Sting the Scorpions played well, but couldn't crack the goal despite numerous opportunities.

Two hours after the first game ended the Scorpions took the field against the Cobras and in the first 11 minutes ripped off three goals for a lead they never surrendered.

The Cobras were in their second game of the day and had only nine players. They simply couldn't keep up with the Scorpions.

Philip Johnson and Ted Mechtenberg had two goals each. Brendan Ledden, Chris Marshall, Mike Bowen, Charles Eberhart, Danny Moldenhauer and Dave Caraker had solo goals in the big Scorpion victory.

Tomorrow and Sunday the under-14 squad will take part in the GESL Turkey

Shoot Tournament in Bakersfield. More than 20 teams are involved in this annual tourney.

The youngest Scorpion team will close out the 1986 season on Dec. 6 when they face the Bakersfield Strikers at NWC's Davidove Field.



The Skipper Sez...

Civilian employee working at Salt Wells - - I have a question concerning the new intersection at Richmond Road and Lauritsen. I thought that was intended to be some kind of flood control work but it appears all that was involved was moving the intersection over to lessen the width of the road. The right turn lane going out to the CLPP was eliminated and now there is just a cloud of dust there in the mornings when people come in as they cut across that intersection. They cut the corner, and the corner is much more difficult to navigate now. I am curious if the right turn lane is going to be put back in and why the intersection was moved in the first place. I haven't been able to figure out any benefit for it and it is definitely a more difficult corner to maneuver around. Thank you.

The work on Richmond Road was done in conjunction with the Drainage System Restoration project now under construction. The installation of drainage structures under Inyokern Road necessitated the closure of the main gate. Prior to closure of the main gate and because of safety concerns due to increased traffic volume, Richmond Road was realigned and widened. It was recently determined that the work at the intersection of Richmond Road and Lauritsen was improperly completed and therefore rework was required. Then rework is completed by the end of the month, this intersection will be in conformance with California state standards for both turning radii and no need of a right hand turn lane.

All China Laker, including military personnel, civilian employees and their dependents, are invited to submit questions to this column. Such queries must be in good taste and pertain to matters of interest to a large segment of the China Lake community. Answers to these questions are directly from Capt. John Burt. Please call NWC ext. 2727 with your question and state whether you are a military member, civilian employee or dependent. No other identification is necessary. Since only three or four questions can be answered in the *Rocketeer* each week, anyone who would like to ensure getting an answer to a question may leave name and address for a direct contact, but this is not required otherwise. There is no intent that this column be used to subvert normal, established chain of command channels.

GIDEP award won . . .

(Continued from Page 1)
manufacturing sources and increase standardization of parts and parts testing. Currently 180 codes at NWC receive some sort of GIDEP data from five data banks.

Data banks have been established for engineering, reliability and maintainability, metrology, failure experience and value engineering. There is also a management problems and solution data bank, but, according to Barr, it has been largely inactive.

NWC codes and others belonging to GIDEP can search any data bank by computer for information needed for a particular program, giving quick access to data.

Barr noted GIDEP's success here was largely due to the support of command. There has been a real interest in the program at the command level and excellent cooperation from codes in submitting documents to go into GIDEP data banks.

While it is a Navy mandate for NWC to participate in GIDEP, Barr says it wouldn't work without the cooperation of engineers and others who use data from GIDEP and who submit data to be shared with other government and industry facilities.

Navy Capt. Edward G. Stacy, Office of the Assistant Secretary of the Navy (Shipbuilding and Logistics) is the current GIDEP program manager. The GIDEP Operations Center is at the Fleet Analysis Center in Corona. Barr is supported by COMARCO and is joined by Duane McConnell, Code 3683, who directs metrology data interchange at NWC in taking care of GIDEP at China Lake.

Since its inception, GIDEP has placed an emphasis on rapid transmission of data to potential users and having information readily available upon demand. The underlying philosophy is to have information waiting for the users, rather than the user waiting for the information.



HEART OF OPERATION — Data is fed into the seven Gould Sel 32/77 computers located in the communication center of the Range Control Center. These

computers, central to RIPS, then feed the processed data to 11 consoles used by test conductors to watch ongoing tests. — Photo by PH2 Rick Moore

Final week of CFC here; give generously today

China Laker has another week to turn in their pledge cards or make donations to the 1987 Combined Federal Campaign (CFC) annual fund-raising effort. The deadline has been extended to Friday, Dec. 5.

So far this year, the CFC drive has generated more than \$131,200. The goal is to surpass the record set just a year ago as generous China Laker dug deep into their pockets and pledged more than \$200,000 to benefit CFC agencies.

Again in 1987, CFC contributions will be fully deductible for federal income tax purposes for taxpayers who itemize on their return.

By now all civilian and military personnel at China Lake should have received a pledge card and a brochure explaining CFC and the numerous agencies that receive

benefits from the annual drive.

This is the one time each year federal employees are asked to donate to charity. This one, combined, effort takes care of the needs of all agencies, ranging from the Indian Wells Valley to national and international organizations.

Donors are encouraged to specify which of the many organizations they want their money to go to. The pledge card has spaces to designate how much of the overall donation should go to each agency the donor selects.

Military and civilian employees alike can donate in a lump sum or authorize a payroll allotment, spreading the donation over a 12-month period, starting January, 1987.

Time is running out, but the record generosity of last year can still be eclipsed by China Laker.

Safety seminar set Dec. 12

Defensive driving will be the focus of attention in the annual one hour-holiday traffic safety seminar presented by the Safety and Security Department on Friday, Dec. 12 at the Center theater. Two sessions will be presented: one from 10:30 to 11:30 a.m. and the other from 12:45 to 1:45 p.m.

Special arrangements have been made with Doron Precision Systems of New York to bring in a computerized driving simulator to help demonstrate defensive driving techniques. The system consists of a scale model of a driver's seat with wheel and controls, a computerized console for scoring driver reactions; and a 16mm pro-

jector showing wide screen real-life driving scenarios.

Volunteers will be able to test their skills while defensive driving techniques are discussed. Specific topics include crash avoidance, handling emergencies, mixing with motorcycles and margins of safety. The 2-second rule for proper following distance will be illustrated as well as what to do when brakes fail or when running off the road.

Members of the audience can test their judgment in each situation by observing. The seminar promises to be an eye-opener for the holiday season.

Shots necessary for children

As of mid-October, 241 cases of pertussis (whooping cough) were reported for 1986 in California; this is the highest total reported since 1974. Of these, eight cases were reported in Kern County.

Dr. Leon Hebertson, County Director of Public Health Services, says that diagnosed and reported cases of whooping cough are only the tip of the iceberg — much transmission is through mild cases that are diagnosed as upper respiratory infections, bronchitis or similar ailments.

Children aged 2 months through 17 years who do not have all their immunizations up to date, including pertussis, can receive the

shots in Ridgecrest at the Health Department, 250 W. Ridgecrest Boulevard on Monday from 8:30 a.m. until noon. Appointments are not necessary, but a parent or guardian must accompany the child to sign consent slips.

Cost of each immunization is \$2, with a maximum charge of \$5 per family per visit. Credit cards, insurance forms or large bills will not be accepted, but Medi-Cal stickers will be honored.

RIPS . . .

(Continued from Page 1)
comprised of many differing parts, the system is protected against catastrophic failure. "It's designed to 'fail soft,'" he notes. "If one part of the system fails, the others still continue with overall reduced capability rather than coming to a complete halt."

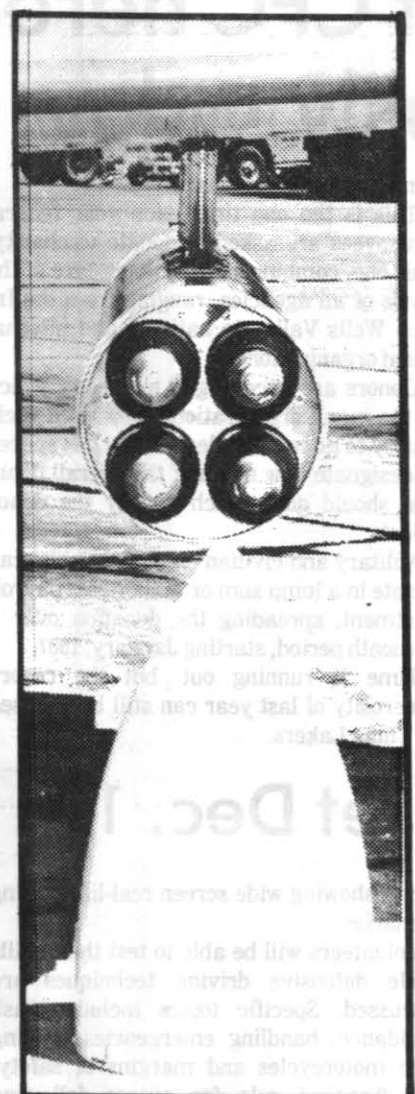
The Projects Office, also housed in the RCC, provides expertise in planning and coordinating tests to best meet customer needs.

Department and division offices from the Range Department will move soon into the new addition built immediately south of the RCC. Completing the move of cognizant personnel into the RCC will be a move by the Telemetry Division of the Aerosystems Department into the other addition now being completed.

Open house set

Users and potential users of Hewlett Packard equipment are invited to attend an open house in the Flight Deck of the Enlisted Mess on Thursday from 8 a.m. until 3:30 p.m.

NWC HOTLINE
Integrity, efficiency program
Call: NWC ext. 3636 (24 hrs.)
or call the Inspector General at:
(800)522-3451 (toll free)
288-6743 (Autovon)
(202)433-6743 (commercial)



Zuni: NOTS succeeds again

In 1957 another NOTS product was unveiled for use in the fleet, the five-inch ultra-high velocity folding-fin rocket, better known as Zuni. The younger brother to the 2.75 inch Might Mouse rocket, Zuni replaced Holy Moses, a five-inch rocket used in World War II and Korea for air-to-ground bombardment.

When it was released to the fleet, Zuni was hailed as another example of NOTS innovation and was capable of both air-to-ground and air-to-air use. It had a speed in excess of Mach 2 and could operate in almost any environment.

The fire power from an A4D Skyhawk or the old FJ-4B Fury equipped with 16 Zunis equaled the punch of a five-inch salvo from a cruiser.

Like Sidewinder before it, part of the beauty of Zuni was dependability and simplicity. It had only four moving parts, and needed no special training for handling or firing.

Another unique feature of this rocket was the fire control system and launchers. The launchers also served a shipping, storage and handling containers, and the nose cone and tail fining were made of paper to streamline the system for supersonic flight, but give way when fired.

Zuni could be launched singly, in pairs or in rippled salvos. J.C. McDonald and Sydney Sheffer were architects of the Zuni program at the Naval Ordnance Test Station.



China Lake Police Reports

Someone in the west compound of Michelson Laboratory used a fork lift to load a box onto the back of a truck and the truck then drove off. The box was used for some special equipment. This case of grant theft has been referred to NSIC.

Three vehicles were stopped on Sandquist Road about a half mile south of Easy

Road when the driver of the back vehicle decided — erroneously — that the front one was getting ready to move and started forward. That vehicle pushed the one in the middle into the back of the first vehicle stopped, resulting in an injury to a person in the front vehicle.

Police responded to another call in the Capehart B housing regarding vandalism.

Investigation revealed that the suspect threw a knife at a victim, making this an assault with a deadly weapon. Suspect and victim are 15 and 16 years of age. The case is under further investigation.

Officers checking on a 911 call made in the Site B Capehart housing went to the residence, found two children, aged 7 and 8, in living conditions that were unsanitary and unhealthy for children. The children were taken into protective custody and transported to Bakersfield. The case has been referred to the District Attorney.

OPSEC becomes increasing part of life at NWC

Within the coming weeks and months, we at NWC are going to be hearing more and more about something called "OPSEC." The term stands for "Operations Security," and, although it is not a new endeavor, OPSEC is going to become increasingly a part of our official life here at the Center. For that reason, it is important that we all know a little more about what OPSEC really means to the Center and to each of us.

Historically, the concept of OPSEC has been known to military planners and leaders for years. Simply stated this concept involves the protection from hostile sources of information of all types that would help the enemy defeat our military goals and objectives.

We found out during the Vietnam war that even when our traditional security programs were functioning as they were intended, we still were losing to the enemy vital information, as often as not, resulted in an ability on his part to frustrate our military objectives and to cost us dearly in terms of losses in resources and personnel. This experience taught the United States the painful truth that in modern conflicts unclassified sensitive information can often be as important to protect as classified information.

In Vietnam, the enemy was gaining a major percentage of his useful intelligence concerning our combat intentions from unclassified sources. Telephone conversations, casual conversations in bars and public places, information pertaining to supplies, logistics, morale, communications and open sources, such as news media releases, were typical of the areas the enemy was drawing upon to identify United States' military intentions. The problem was one that has deep roots in a free society; we simply were not accustomed to thinking in terms of hostile intelligence benefiting from our casual conversations.

Vietnam, however, was only one example of the damage being done to the U.S. defense effort by uncontrolled information flow to the opposition.

In the United States itself, for the major portion of the period from the end of WW II to the present, Soviet intelligence has been bleeding every possible source of technological information to acquire critical technology and weapon system data pertaining to U.S. military development. Much of this information has been readily available through open sources such as technical reference libraries, DOD releases, scientific publications, etc. When the legal collection efforts failed to provide the answers the Soviets needed, they relied on covert agent operations — the Walker case being a prime example.

Our response to this steady outflow of information of critical value to the U.S. defense effort has been to try and develop mechanisms to control the kinds and amounts of information that are allowed to find their way into overt sources and to strengthen our efforts to frustrate the penetration of our security by insiders, like those in the Walker ring. The question then became what mechanisms do we

need to do the job? OPSEC as we will come to know it at the NWC is one of the answers to that question.

First of all then, OPSEC is a statement that there is a real and present threat on the part of the opposition that is directed toward penetration of our national defense effort, with special emphasis on critical technology and weapon systems RDT&E and that we are all responsible for ensuring that we do our part to minimize that threat.

Within the Navy, OPSEC is rapidly becoming an integral part of the RDT&E process from the time a program is conceptualized up to and including the delivery of the fleet to the particular technology weapon system or product. Program and project managers are required to evaluate the threats to their systems throughout the RDT&E cycle and to identify and implement countermeasures to prevent those threats from achieving their purpose.

The key to the success of the OPSEC process is each of us. OPSEC training that will be conducted at NWC in the months ahead will stress that fact. Whether information/data is classified or sensitive unclassified, we are responsible for ensuring that we safeguard it from exploitation by hostile intelligence. This is the message that is communicated by those signs that you see when you leave our Center — "What you see here, what you hear here, what you do here — leave here."

But there is much more to OPSEC than this. It is our job to become aware of what we do that is sensitive and to become knowledgeable regarding the ways and means that the Soviets and others may use to try and obtain that information. OPSEC helps us to do this by providing specialized training and awareness programs for all Center employees. The next time we use an unsecured telephone — we should stop and think of what we are saying and whether or not it would be of help to a foreign agent listening to the conversation.

This article is just a slight insight into the areas with which OPSEC will be concerned. OPSEC planning for the Center will be concerned with evaluating every facet of the way we do business and trying to identify areas where we can do a better job of safeguarding information that is vital to the defense of our country.

It's a big job and you will be hearing much more about what each of us can do both officially and unofficially to make it a success. For the moment however, let's all think of OPSEC as our own private responsibility for doing everything within our power to keep knowledge of what we do here at NWC out of the hands of people who have no need to know.

The point of contact for NWC concerning this program is the Operations Security Office, Code 2409. If you have any questions, comments or suggestions concerning OPSEC and the OPSEC program, contact David McFadden, NWC ext. 3521/3522.

Services restrain mail-order business practices

Many service men and women have found that running mail order businesses selling everything from detergent to shampoo after duty hours is a good way to bring in a few extra dollars. But they should know that using the military postal system to conduct a personal business of any sort is strictly prohibited.

"The military postal system overseas is merely an extension of the United States Postal Service," said Army Master Sgt. Leonard N. Winnings, staff postal NCO at the military postal service agency in Alexandria, Va. "Under a formal agreement between the U.S. Postal Service and the Department of Defense, DOD customers can get the same service in overseas areas as they do stateside."

But the reason service members are prohibited from conducting personal businesses through the military postal system is that DOD pays for the movement of mail to and from overseas areas. "In effect, DOD would be paying part of the expense of running your business if you used the military postal system," said Winnings.

Army and fleet post offices are exclusively for personal mail, cautioned Winnings, and there are no provisions for prorating business mail. However, there are alternatives.

Winnings suggested that people look into the possibility of using air or sea freight. He said some countries have services much

like those of Federal Express and United Parcel Service.

However, he said, those shipments would have to be sent to a civilian address in the country in which you are located. Winnings said international mail is one way of sending shipments to another country.

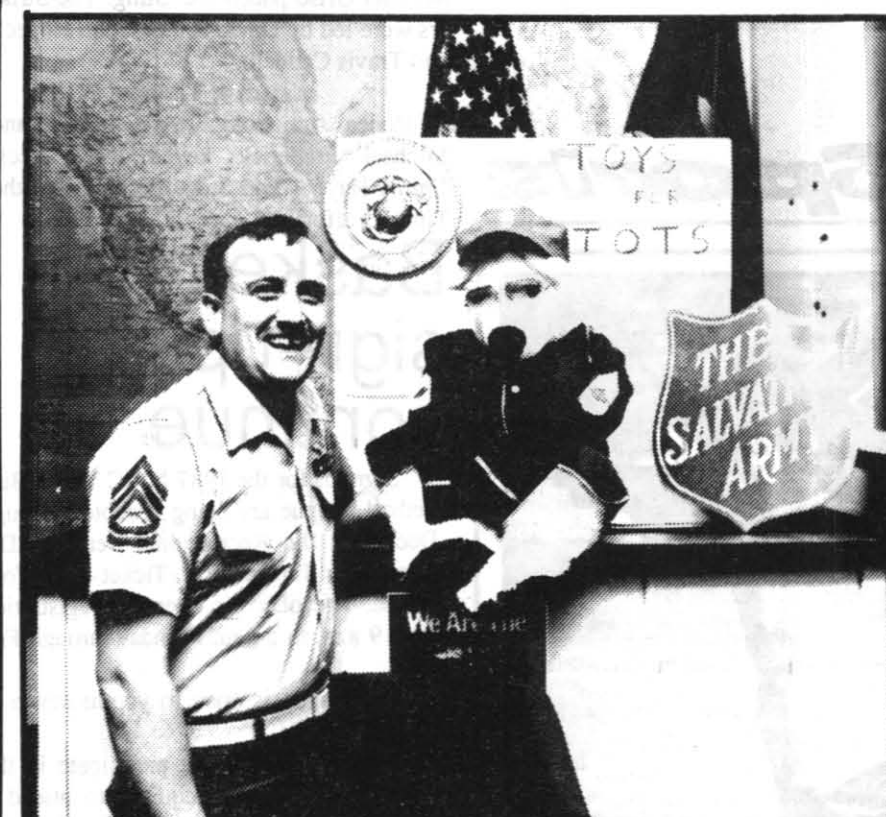
Each alternative is subject to customs assessments, as applicable.

Winnings said anyone found to be using the military postal system to conduct a personal business could be subject to military administrative or judicial action depending on the scope and size of the incident. Anyone who has a question concerning this subject can reference Appendix A of Department of Defense Directive 425.6-M.



Military News

Marines join in 'sharing and caring'



CAMPAIGNING — Marine Corps Gunnery Sergeant Al Bucharelli joins with the mascot for this year's Toys for Tots drive. Personnel from the Marine Corps Liaison office at NWC have joined with the Salvation Army in gathering new, unwrapped toys that will be included in Christmas baskets for families with children that are on the holiday basket list.

— Photo by PH2 Rick Moore

With the theme of "Sharing Is Caring," the Marine Corps Liaison Office at NWC will once again collect toys for the community-wide holiday basket program. There are approximately 300 children in 150 families in this year's program.

Donations of new, unwrapped toys may be made during working hours to the lobby of Michelson Laboratory, American Legion Post 684 (641 Inyokern Road), Desert Cablevision (543 Inyokern Road), Continental Telephone (520 S. China Lake Boulevard) and the Kern County Library (131 E. Las Flores). The toy drive starts December 1 (Monday) and will end Thursday, December 18.

Toys are needed for ages 12 months to 12 years. The following guidelines are suggested:

Age 12 through 18 months: push/pull toys, soft blocks, fabric books, soft animals or dolls.

Age 18 months to 3 years: balls, push/pull toys, sturdy books, sandbox toys.

Age 3 years through 5 years: balls, books, clay, crayons, toy cars, trucks, trains, dolls, appliances.

Age 5 through 9 years: crafts, jigsaw puzzles, books, word games, sports equipment, model kits.

Age 9 through 12 years: hobby sets, science sets, board games, books and craft material.

FRA sets ceremony

China Lake Branch 95 of the Fleet Reserve Association will hold its regular monthly business meeting at 7:30 p.m. Monday in the Chief Petty Officers' Mess.

Highlighting the evening will be a "two bell" ceremony honoring those who made the supreme sacrifice at Pearl Harbor on Dec. 7, 1941 and those still listed as missing in action or prisoners of war.

In addition, agenda items include plans for a dinner in January to honor the southwest regional president's visit and a discussion of items of mutual interest with members of Branch 81 (Victorville/Hesperia) who plan to attend the meeting.

All Navy, Marine Corps and Coast Guard personnel, active duty and retired, are invited to attend as well as personnel who are already members of the FRA.

NEX News

NEX shoppers still have the rest of today and tomorrow to take advantage of the special after Thanksgiving sale.

And, during December, those Super Sunday Sales become Super Saturday Sales. The first will be held on Dec. 6.

December 6 is also the first day that Santa Claus will be around. He'll also be present on Dec. 13 and 20, and from 10:30 a.m. to noon and 1 to 2:30 p.m., little tots can have their picture taken with Santa.

Pay hike OK for military members

A 3 percent pay raise for military personnel goes into effect Jan. 1, 1987. A 1.3 percent cost-of-living allowance for military retirees also takes effect.

PAY GRADE	Under 2	2	3	4	5	6	8	10	12	14	16	18	20	22	26
COMMISSIONED OFFICERS															
O-10	5378.10	5567.70	5567.70	5567.70	5567.70	5781.00	5781.00	5900.10	5900.10	5900.10	5900.10	5900.10	5900.10	5900.10	5900.10
O-9	4766.70	4891.50	4995.60	4995.60	4995.60	5122.50	5122.50	5335.80	5335.80	5335.80	5335.80	5335.80	5335.80	5335.80	5335.80
O-8	4317.30	4446.60	4552.20	4552.20	4552.20	4681.50	4681.50	4891.50	4891.50	4891.50	4891.50	4891.50	4891.50	4891.50	4891.50
O-7	3587.40	3831.30	3831.30	3831.30	3831.30	4002.90	4002.90	4235.10	4235.10	4235.10	4446.60	4446.60	4446.60	4446.60	4446.60
O-6	2658.90	2921.40	3112.50	3112.50	3112.50	3112.50	3112.50	3112.50	3112.50	3112.50	3218.10	3218.10	3218.10	3218.10	3218.10
O-5	2126.40	2497.20	2669.70	2669.70	2669.70	2669.70	2669.70	2750.70	2750.70	2750.70	2898.30	2898.30	2898.30	2898.30	2898.30
O-4	1792.50	2182.80	2328.30	2328.30	2328.30	2371.50	2476.20	2645.10	2793.90	2921.40	3049.50	3133.80	3133.80	3133.80	3133.80
O-3	1665.90	1862.40	1990.80	2202.90	2308.20	2391.30	2520.80	2645.10	2710.20	2710.20	2710.20	2710.20	2710.20	2710.20	2710.20
O-2	1452.60	1586.40	1905.60	1905.60	1969.80	2011.20	2011.20	2011.20	2011.20	2011.20	2011.20	2011.20	2011.20	2011.20	2011.20
O-1	1260.90	1312.80	1586.40	1586.40	1586.40	1586.40	1586.40	1586.40	1586.40	1586.40	1586.40	1586.40	1586.40	1586.40	1586.40
COMMISSIONED OFFICERS WITH MORE THAN 4 YEARS ACTIVE DUTY AS ENLISTED OR WARRANT OFFICER															
O-3E	0.00	0.00	0.00	2202.90	2308.20	2391.30	2520.80	2645.10	2750.70	2750.70	2750.70	2750.70	2750.70	2750.70	2750.70
O-2E	0.00	0.00	0.00	1969.80	2011.20	2074.80	2182.80	2266.20	2328.30	2328.30	2328.30	2328.30	2328.30	2328.30	2328.30
O-1E	0.00	0.00	0.00	1586.40	1694.70	1757.10	1820.70	1884.00	1969.80	1969.80	1969.80	1969.80	1969.80	1969.80	1969.80
ENLISTED MEMBERS															
E-9	0.00	0.00	0.00	0.00	0.00	0.00	1974.00	2018.70	2064.30	2111.70	2158.80	2200.80	2216.60	2241.90	2241.90
E-8	0.00	0.00	0.00	0.00	0.00	1655.70	1702.80	1747.50	1793.10	1840.20	1882.80	1929.00	2042.40	2270.10	2270.10
E-7	1155.90	1247.70	1294.20	1339.20	1385.10	1429.20	1474.80	1520.70	1569.40	1634.70	1680.30	1702.20	1816.50	2042.40	2042.40
E-6	994.50	1083.90	1129.20	1177.20	1221.00	1265.40	1311.90	1379.40	1422.60	1468.50	1491.00	1491.00	1491.00	1491.00	1491.00
E-5	872.70	950.10	996.00	1039.50	1077.60	1152.60	1198.50	1242.60	1265.40	1265.40	1265.40	1265.40	1265.40	1265.40	1265.40
E-4	814.20	859.50	909.90	980.70	1019.40	1019.40	1019.40	1019.40	1019.40	1019.40	1019.40	1019.40	1019.40	1019.40	1019.40
E-3	766.80	808.80	841.50	874.80	874.80	874.80	874.80	874.80	874.80	874.80	874.80	874.80	874.80	874.80	874.80
E-2	738.00	738.00	738.00	738.00	738.00	738.00	738.00	738.00	738.00	738.00	738.00	738.00	738.00	738.00	738.00
E-1	658.20	658.20	658.20	658.20	658.20	658.20	658.20	658.20	658.20	658.20	658.20	658.20	658.20	658.20	658.20
E-1	608.40	608.40	608.40	608.40	608.40	608.40	608.40	608.40	608.40	608.40	608.40	608.40	608.40	608.40	608.40

E-1 with less than 4 months — 580.70

NOTE — Monthly pay limited to \$5900.10 by Level V of the Executive Schedule

Rec Services sponsoring swap meet

Each month the Recreational Services Department will sponsor a swap meet from 8 a.m. until 1 p.m. on the first Saturday of the month. The first of these will be held on Dec. 6.

Fees for a parking lot space and publicity are minimal: \$2.25 for active duty military; \$2.50 for DOD civilians and retired military; and \$3 for private citizens.

Swap meet participants are responsible for set up. A limited number of 4 feet by 10 feet long tables can be rented for \$2 each on a first come, first served basis.

Those wishing to participate must register at the Information, Ticket and Tour Office Mondays through Fridays from 9 a.m. until 5 p.m. More information can be obtained by telephoning NWC ext. 2010.

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288-6743 (Autovon)
1-214-333-6743 (commercial)

(artificial voice/ears), to enable them to perform original research and/or make original contributions in any one or more of these fields.

Text: "Industrial Robotics: Computer Interfacing and Control," Wesley E. Snyder, Prentice Hall, 1985.

CSCI 320A: **DIGITAL AND ANALOG TRANSFORM THEORY (3 units)**

January 27 - May 22; Tuesdays and Thursdays; 1400-1515 (via satellite); Training Center. By Professor H. R. Luxenberg, CSUC.

Prerequisite: One upper division course in mathematics or consent of instructor.

Scope: Through lectures and assigned readings, the instructor will provide sufficient background in the mathematical techniques of signal processing theory to permit students to do independent study in areas involving signal processing. Students are to do independent study in some area of signal processing which is of personal interest to them. Examples include: music synthesis, speech generation, speech recognition, video processing, image enhancement, pattern recognition.

Text: "Signals and Systems," Oppenheim, A. V. and Willsky, A. S., Prentice Hall Signal Processing Series, 1983.

CSCI 280: **DIGITAL LOGIC DESIGN THEORY (3 units)**

January 27 - May 22; Tuesdays and Thursdays; 1100-1215 (via satellite); Training Center. By Professor Ralph Hiltzer, CSUC.

Prerequisite: CSCI 171: Computer Architecture, or the equivalent experience which has provided an introductory knowledge of logic gates, Karnaugh mapping, and assembly language programming.

Scope: The course covers the design of combinational and synchronous sequential digital circuits. The student will design a simple digital computer. Topics include combinational logic (Boolean algebra, Karnaugh maps, switching functions, NAND and NOR design, don't care terms, minimization, iterative circuits, decoders, multiplexers, programmed logic arrays), memory devices (flip-flops, shift registers, semiconductor RAMS and ROMS), synchronous sequential logic (State transition diagrams, state minimization and state assignment, register transfer operations, analysis and synthesis of synchronous sequential machines, counters, buss interconnections, synchronous inputs to clocked logic), and the design of a simple digital computer.

Texts: "Digital Logic and Computer Design," Mano, Prentice-Hall, 1979. "The TTL Data Book From Texas Instruments."

CSCI 152: **OPERATING SYSTEMS PROGRAMMING (3 units)**

January 27 - May 22; Tuesdays and Thursdays; 0800-0915 (via satellite); Training Center. By Professor Paul Luker, CSUC.

Prerequisite: CSCI 151 (Data and Program Structures) or equivalent.

Scope: This course covers an overview of system and software function and evolution; loaders; linkers; operating system architecture from the kernel outwards. Topics include the motivation for and evolution of system software; overview of an operating system; the kernel of an operating system -- process management; the synchronization of concurrent processes; memory management; virtual memory; the input/output subsystem: overall operation and synchronization, and disk scheduling;

Cerro Coso Community College announces the registration schedule for spring semester

Cerro Coso Community College has announced its registration schedule for the upcoming spring 1987 semester. The new semester begins January 20 and concludes June 4.

Continuing students will be registering on Dec. 8-10 and on Jan. 12. To register on these dates students must have an appointment.

New students attending an orientation session will be given priority registration immediately following the sessions on Dec. 11 and Jan. 12 by appointment only.

Both new and continuing student registration will be conducted by appointment only on Jan. 13-15.

Interested individuals may make a registration appointment by calling the College at 375-5001, Dec. 2, 3, and 4 and weekdays January 5-15, from 9 a.m. to 5 p.m.

Open registration, where no appointment is needed, will occur on January 19 from 9 a.m. to 12:30 p.m. and from 2 to 6:30 p.m.

New students are encouraged to participate in the spring semester new student orientation and registration program. The one-hour orientation sessions will be held on Thursday, Dec. 11 at 9 a.m.; 1 p.m.; 2:30 p.m.; and 4:30 p.m. On Monday, Jan. 12, the sessions will be held at 1 p.m.; 2:30 p.m.; and 4:30 p.m. Topics will include available major fields and study programs, graduation and transfer requirements, and student support services. Space is limited, advance reservations must be made for a specific orientation session by contacting the Registration Appointment desk at 375-5001.

Students requiring placement tests or a counseling appointment regarding their academic schedule should contact Student Services at 375-5001, ext. 219 prior to their registration appointment.

For enrollment in English and Office Careers courses, students must obtain placement cards from Student Services prior to registering for classes.

For more information, contact the college at 375-5001.

CENTER TUITION SUPPORT

The Center will pay for your full tuition under the NWC/Cerro Coso Contract, if you

Courses in Administration of Justice to be offered by Cerro Coso Community College

Beginning January 20 and concluding June 4, Cerro Coso Community College will be offering courses in Administration of Justice and Business Real Estate during the spring term.

Stephen Kaupp will instruct a 3-unit course on the organization, functions and jurisdiction of juvenile agencies. This course will also cover processing and detention of juveniles, juvenile case disposition; juvenile statutes and court procedures. "Juvenile Procedures" will

"General Aeronautics" and "Instrument Flying"

Aeronautics is the topic of two courses being offered by Cerro Coso Community College (CCCC) during the spring 1987 term. Both courses will be instructed by Don Quist.

An introduction to the basic concepts and general information about airplane flight, control construction and operation will be covered in "General Aeronautics."

meet on Tuesday evenings from 6:40 to 9:30 p.m. at the NWC Training Center.

"California Vehicle Code" will cover the California Vehicle Code and related subjects as applied by the peace officer in the State of California. Jerome Linenkugel will instruct the 3-unit course on Thursday evenings from 6:40 to 9:30 p.m. at the NWC Training Center.

Cerro Coso has also scheduled a 3-unit course in the "Principles of Real Estate." Gurney Hoggard will instruct the class on

This 3-unit course will meet on Wednesday evenings from 6:40 to 9:30 p.m. at the City Center in Room 102. This course is designed to prepare students for the Federal Aviation Agency private pilot written examination and emphasis

applies to aircraft with less than 12,500 pounds gross weight.

"Instrument Flying" will cover pro-

the file system; scheduling CPU allocation; and resource allocation -- deadlock handling.

Text: "Operating Systems Concepts," Peterson and Silberschatz, Addison, 1985.

NOTE: This is a core course for the bachelor's degree in computer science and a foundation requirement for the master's degree program in computer science.

CSCI 397C-2: **EXPERT SYSTEMS APPLICATIONS (3 units)**

April 4-5, April 25-26, May 30-31; Saturdays and Sundays; 0800-1600; Training Center. By Professor Ralph C. Huntsinger, CSUC.

Prerequisite: CSCI 151 (Data and Program Structures) or equivalent.

Scope: This course covers the basic concepts and techniques of current expert systems technology. The course emphasis is on Expert System Shells and their use for specific applications. The use of the language Prolog (Programming in Logic) for expert systems applications will be included. Topics include an overview of expert systems concepts; history of expert systems; the IBM ESDE (Expert System Development Environment); Expert Systems Shells on micro computers; introduction to the Prolog AI Programming Language; uses of the language Prolog in expert systems applications.

Texts: "Building Expert Systems," Hayes-Roth, Waterman, and Lenat, Addison-Wesley, 1984.

MATH 477: **DIFFERENTIAL EQUATIONS (5 quarter units)**

January 16 - March 20; Fridays; 1530-2030 (1-hour dinner break); Training Center. By Professor El-Ansary.

Scope: First-order differential equations (d.e.); linear d.e.; linear systems; Laplace transform and its applications to solutions of linear d.e. and systems; series solutions of second-order linear equations and/or numerical solutions of d.e.; topics in non-linear d.e. and systems; applications.

Text: "A First Course in Differential Equations With Applications," Dennis G. Zill, Wadsworth.

SOC 405: **SOCIOLOGY AND TECHNOLOGY (5 quarter units)**

January 12 - March 16; Mondays, 1600-2100 (1-hour dinner break); Training Center. By Professor Nyberg.

Scope: This course examines reciprocal relationship between technology and society, emphasizing the manner in which technological changes alter basic social institutions, including the family, religion and the military, and even science itself. Special attention is given to the positive and negative impacts of technology on the individual and the dilemmas posed by the creation of a technology dependent economy.

NOTE: This course satisfies an upper division general education course requirement for CSUC bachelor's degree program.

GENERAL COMMENTS

1. Textbooks are available at bookstores locally.
2. Job-related courses other than those listed above or those offered under contract with Cal-State Northridge or Cal-State Bakersfield must be approved on an off-Center Training Request (DD Form 1556) before registration if NWC is expected to pay for the training. For more information, contact Cecil Webb, NWC ext. 2648.

can show that courses are job-related or will strengthen your contributions to the Center's mission. Your tuition will be paid directly to the college by Code 094.

You must submit a DD Form 1556 (Request, Authorization, Agreement, and Certification of Training and Reimbursement) via department channels to Code 094.

If a course is not directly job-related, along with the DD Form 1556 submit NAVWPNCEN 12410/66 Academic Enrollment Justification and NAVWPNCEN 12410/68, Individual Development Plan, describing how the course fits into your overall career plan and how attendance at the course will strengthen your contribution to the Center's mission.

If you are not yet a California resident, please include a statement from your supervisor indicating the negative impact to NWC of postponing the training until residency is established.

Code 094 will return the approved DD Form 1556 to you. You must take it with you to Cerro Coso when you register in order for NWC to pay your tuition.

CO-OP STUDENTS

If you are a co-op student, a DD Form 1556 is not required, simply tell the registrar that you are an NWC co-op student when you register. Please identify yourself as a co-op student at the beginning of the registration process.

ENROLLMENT DEADLINE

Requests for tuition support (DD Form 1556) must be received by CLOSE OF BUSINESS December 1 for registration December 8-10 and January 5 for registration January 12-19, so that they may be processed and returned to you in time for registration. Those received after the deadline will be returned and employees will have to pay the tuition themselves. Employees who pay tuition will not be reimbursed. If you have any questions, call Cecil Webb at NWC ext. 2648.

the fundamentals of real estate practice and principles related to: liens, taxes, bonds, contracts, leases, deeds and other real estate instruments in conjunction with brokerage and home ownership. The

course will principally cover the point of view of the consumer and an orientation to the career aspects of real estate. Classes will meet on Monday and Wednesday evenings from 6:40 to 8 p.m. in Room 346.

will be offered at CCCC this spring

cedures for aircraft navigation and control through the use of radio navigation facilities, instrument interpretation and landing approach procedures using ADF, ILS, VOR, GCA, DME and radar

facilities. This 3-unit course will meet on Monday evenings from 6:40 to 9:30 p.m. at the City Center in Room 102.

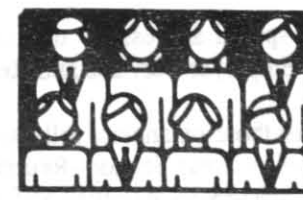
Continuing students may register early

Continuing students may register early on Dec. 8, 9, and 10 by appointment only. Appointments may be made by calling the college at 375-5001 on Dec. 2, 3, or 4. New students participating in a special orientation and registration session may register on Dec. 11 and Jan. 12 by appointment only.

For more information on classes being offered by CCCC during the spring semester, call the college at 375-5001.

on Dec. 8, 9, and 10 by appointment only. Appointments may be made by calling the college at 375-5001 on Dec. 2, 3, or 4. New students participating in a special orientation and registration session may register on Dec. 11 and Jan. 12 by appointment only.

For more information on classes being offered by CCCC during the spring semester, call the college at 375-5001.



PROMOTIONAL OPPORTUNITIES

Applications for positions listed in this column will be accepted from appointable Department of Navy employees within the area of consideration and from eligible employees of attached activities who are permanently assigned to NWC unless otherwise specified in the ad. Appointable means career or career conditional employees, temporary employees with reinstatement or VRA eligibility and employees serving under Veterans Readjustment Appointments (VRAs). Alternative recruitment sources may also be used in filling these positions; vacancies are subject to restrictions imposed by the DOD Priority Placement Program. Applicants must meet all legal and regulatory requirements including minimum qualification requirements by the closing date. Applicants will be evaluated on the basis of experience, education, training, performance ratings and awards as indicated in the SF-171 along with any tests, medical examinations, performance evaluations, supplemental qualification statements and/or interview that may be necessary. Career ladder promotions are subject to satisfactory performance and cannot be guaranteed. APPLICATION PROCEDURES: Candidates must submit a current SF-171, along with a supplemental qualifications statement (if required), and should submit a copy of their latest Annual Performance Evaluation if relevant to the vacancy. If a supplemental statement is not required, candidates are encouraged to submit additional information which then addresses the specific Knowledges/Skill/Abilities (KSAs) cited in the ad. Write the position title/series/level and announcement number on the SF-171 and all attachments. Be sure that your forms are complete and accurate since you cannot be rated on missing data nor will you be contacted for additional information. Be certain the SF-171 and supplement are dated and have original signatures in ink.

All applications will be retained in the vacancy announcement file; they will not be returned or filed in official personnel folders. Applications and supplements are accepted at the Reception Desk, Room 100, Personnel Department, 505 Blandy. Ads close at 4:30 p.m. on Friday, one week after the announcement, unless otherwise specified. Applications received after 4:30 p.m. on the closing date will not be considered. The Naval Weapons Center is an Equal Opportunity Employer; selections are made without discrimination for any nonmerit reason.

No. SES-186-328, Assistant Technical

Director for Engineering and head, Engineering Department, ES-801/1301/1520, Code 36 — As a senior technical manager, incumbent will be responsible for developing and managing the development of new ideas and proposals for improved engineering practices. Heading up a department of over 700 personnel, including 242 professional scientists and engineers, the incumbent will participate in decisions which affect the technical and managerial direction of the Naval Weapons Center. Elements:

Knowledge: of mechanical and electronics engineering; of configuration control of weapons systems; of value and product engineering; of quality assurance; of system safety; of manufacturing technology; of advanced production processes. Ability: to communicate in writing; to communicate orally on highly complex technical and managerial topics to a diversified audience at all levels within and outside the agency; to integrate internal and external program and policy issues. Selectee may have to serve a one-year SF5 probationary period. All qualified applicants will be considered — applicant need not be a civilian employee. A special application package is required for this position. Pick up package from M. Moore, Professional Recruitment Coordinator, NWC ext. 3371, Room 234 of the Personnel Building. This ad closes on December 10, 1986.

No. 08-074, Management Assistant, GS-344/67, Code 0821 — This position is located in the Office Systems/Records Management Branch. Incumbent will be the Office Systems Program Coordinator and will be responsible for the management, acquisition and justification for electric/electronic typewriters, facsimile and dictation equipment. Reviews and prepares documentation of word processing equipment requests for appropriate approval; is responsible for maintaining the IBM word processing equipment (WPE) inventory and facsimile inventories; for the coordination and scheduling of WPE training programs; for analysis projects and office systems, procedures and equipment problems. Abilities: to work under pressure; to communicate effectively both orally and in writing; to deal with on and off-Center personnel; to work independently with minimal supervision. Promotion potential to GS-7.

No. 26-078, Production Controller, DT-1152-1, Code 2611 — This is a one-year detail to the Production Management Branch, Public Works Department. The position may be filled permanently within one year and will have promotion potential to DT-2. This position assists and/or is responsible for the formulation and execution of the short range shop load schedule of work to be performed by the division. Job Elements: Ability to communicate well, both orally and in writing; to establish priorities; to prepare a variety of reports.

No. 31-165, Interdisciplinary Electronics Engineer, Physicist, Mathematician, General Engineer, DP-855/1310/1520/801-3/4, Code 31507 — The position is project manager of the Fighter/Attack Avionics Targeting Demonstration (F/AATD), a multi-year \$12M exploratory development effort to develop and demonstrate multisensor targeting for the long-range air-to-air mission. The key activities remaining are the integration of multisensor algorithms into the real-time system, the integration of the system into the SITS lab

No. 08-076, Budget Analyst, DA-560-1/2/3,

Code 087 — (Multiple vacancies.) Position is located in the Corporate Budget Division, Central Staff. Incumbents gather, array and analyze data to develop the Center's Presidential Budget input (A-11), its operating budgets and produce various financial reports. Knowledge: Center financial system as well as its policies and procedures. Abilities: to plan, organize and accomplish tasks independently and as a team member; to research, comprehend and analyze complex and voluminous financial information. Promotion potential to DP-3, but not guaranteed.

No. 26-075, Shop Materials Controller, WG-4701-10, Code 2611 — Supplemental required. Determines material availability for planned work requests, arranges for staging of available material, identifies and coordinates potential substitution of available material for specified unavailable materials. A/C experience required; plumbing experience desired. Job Elements: Ability to determine material availability; to interpret instructions, specifications, etc. Knowledge of technical practices; materials; pertinent tools and equipment.

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at PMTC and the testing of the system and data collection against air targets, along with the planning and start of follow-on programs. Abilities: to manage a technical program; communicate orally; communicate in writing; and to deal with all levels of technical management. Position has promotion potential to DP-4.

No. 32-236, Engineering Technician, DT-802-2/3, Code 32723 — Incumbent will assist and/or provide direct technical support in design and fabrication of plastic, rubber and composite assemblies, instrumentation and testing of solid rocket motors and ordnance devices. Duties include setting up of test equipment, selection and preparation of raw materials, design and fabrication of required tooling hardware and assembly of finished components into specified ordnance or other equipment. Elements: Knowledge of: plastics/aerospace devices and associated hardware; operational and safety policies; and industrial hygiene policies. Skill in design and manufacture of precision dies and molds. Ability to set up machining of specialty parts; and to collect information and provide written documentation of test data. Promotion potential to DT-3 if filled at the DT-2 level, but not guaranteed.

No. 39-050, Supervisory Interdisciplinary (General, Mechanical, Aerospace, Electronics Engineer), DP-801/830/855/861-4, Code 39E — This is head, Advanced Projects Office, Weapons Department. 39E applies advanced technology to current weapons and future weapon system concepts. The incumbent will manage a team of personnel involved in a variety of highly classified, high priority projects. Elements: Knowledge of operation and weapons development/acquisition procedures; knowledge of aircraft and missile systems state-of-the-art technology; ability to prepare and present (both orally and in writing) technical management reviews;

ability to interface with all levels of management, both on and off-Center; ability to supervise; willingness to support NWC EEO goals and policies. Incumbent must be able to obtain Top Secret Clearance. The candidate selected for this position may be required to serve a one-year supervisory/managerial probationary period. Previous applicants need not apply. Promotion potential to DP-4, but not guaranteed.

No. 39-054, Administrative Officer, DA-341-1/2/3, Code 395 — Provides a full range of administrative support functions. This includes budget administration and project and overhead financial management; personnel and organizational management; provides assistance in staffing and other personnel procedures. Elements: Ability to: carry out studies and analysis, present findings and recommendations; and exercise fiscal controls over NIF system. Knowledge of: NAVWPNCEN, Navy and DOD budget administrative processes; personnel policies and procedures. Promotion potential to DA-3.

No. 62-125, Electronics Technician, DT-856-2/3, Code 6255 — (Multiple vacancies.) The Advanced Systems Branch of the Range Department has opportunities for talented technicians who would enjoy participating in the development of complex range instrumentation systems and following that development through to early deployment on the range. Knowledge: of basic analog and digital electronic circuits and electronic documentation; of microprocessors, control systems, lasers and/or video systems. Abilities: to work effectively with people; to work in a hands-on environment. Our programs are relatively small and our probability of fielding systems is high. Openings are available to work on Laser Tracking, Advanced Video and Video Tracking systems. Promotion potential to DT-3.

Secretarial opportunities

This column is used to announce secretarial positions for which the duties and job relevant criteria are generally similar. Secretaries serve as the principal clerical and administrative support in the designated organization by coordinating and carrying out such activities. Secretaries perform numerous tasks which may be dissimilar. Positions at lower grades consist primarily of clerical and procedural duties and, as positions increase in grades, administrative functions become predominant. At the higher levels, secretaries apply a considerable knowledge of the organization, its objectives and lines of communication. Depending on grade level, typical secretarial duties are implied by the job relevant criteria indicated below.

Applicants will be rated against 4 or more of the following job relevant criteria: (1) ability to perform receptionist and telephone duties. (2) ability to review, track, screen and distribute incoming mail. (3) ability to review outgoing correspondence. (4) ability to compose correspondence and/or prepare non technical reports. (5) knowledge of filing systems and files management. (6) ability to meet the administrative needs of the office. (7) ability to train clerical personnel and organize workload of clerical staff processes. (8) ability to plan and coordinate travel arrangements. (9) ability to maintain and coordinate supervisor's calendar and to arrange conferences.

Unless otherwise indicated, applicants for Branch Secretary will be rated on elements 1 2 3 5 8. Division Secretary applicants will be rated on elements 1 2 3 4 7 8 9. Program Office Secretary applicants will be rated on elements 1 2 3 4 5 8 9. and Department Secretary applicants will be rated on elements 4 7 8 9. A SUPPLEMENTAL FORM IS REQUIRED AND MAY BE OBTAINED IN ROOM 100 OF THE PERSONNEL BUILDING

No. 31-168, Secretary (Typing), GS-318-4/5, Code 3143 — This position provides secretarial and administrative support to the Test Engineering Branch. Knowledge of Xerox 860 and VAX commands desirable. Promotion potential to GS-5.

No. 33-026, Secretary (Typing), GS-318-4/5, Code 3383 — Full-time or part-time (30 hours/week). Provides secretarial support to the Applied Research Branch and occasional supplement support for Division Office. Familiarity with IBM Displaywriter system desirable. Promotion potential to GS-5. Status eligibles may apply.

No. 36-207, Secretary (Typing), GS-318-5,

Code 3604 — Provides secretarial and administrative support to the Sidewinder Technical Office. Experience on IBM Displaywriter desirable, but will train.

No. 61-020, Secretary (Typing), GS-318-4/5, Code 6131 — This position is located in the Tracking and Control Branch of the Engineering Support Division of the Aircraft Department. Incumbent provides clerical and administrative support to the head of the Tracking and Control Branch. Word processing skills are preferred and IBM PC/WS2000 training will be provided. Promotion potential to GS-5.

Reassignment opportunities

This column is used to fill positions through reassignment only. For this reason, the Reassignment Opportunity Announcements are separate from the Promotion Opportunities column in the Rocketeer. Applications will be accepted until the date stated in the announcement. Employees whose work history has not been brought up to date are encouraged to file an SF-171 or 172. All applicants must meet minimum qualification requirements established by the Office of Personnel Management. Information concerning the recruitment and placement program and the evaluation methods used in these reassignment opportunities may be obtained from Personnel Management Advisors (Code 096 or 097). Applications should be filed with the person whose name is listed in the announcement. The Naval Weapons Center is an Equal Opportunity Employer.

No. 32-235, **Interdisciplinary Physicist/General/Electrical/Mechanical/Aerospace Engineer**, DP-1310/801/851/830/850-3, Code 3273B — Incumbent is deputy technical manager for Vertical Launch ASROC. Responsible for assisting the technical manager in planning and management of VLA development, including monitoring of fiscal and schedule performance, coordination of effort among various program participants at NWC and NOS/Indian Head and liaison to program sponsors. Planning and management of missile system qualification, management of contractor effort and support of sponsor systems acquisition process. Submit current SF-171 to W. Abernathy, Code 3273B. Promotion potential to DP-3.

No. 35-068R, **Interdisciplinary (General/Aerospace/Electronics Engineer/Physicist)**, DP-801/851/855/1310-2/3, Code 35062 — Incumbent supports technical management of AGM-88A High Speed Anti-Radiation Missile (HARM) testing and evaluation. Schedules and details planning of HARM flight testing to meet TEMP and DCP requirements. Incumbent must be knowledgeable of HARM weapon system operation/performance on several aircraft. Incumbent supports Navy, Air Force and contractors in planning and conducting of HARM Development and operational testing, provides test ranges with overall test requirements, test plans, target scenarios and monitoring to assure that test will meet firing schedules. Incumbent uses knowledge of DOD systems acquisition process and manufacturing and production in interfacing with contractor and program sponsor as well as various diverse organizations, both on- and off-Center. Uses knowledge of test and evaluation of guided missiles and of aircraft systems and instrumentation. To apply for this position, forward an updated SF-171 to Dave Janiec, Code 3506B, NWC ext. 2951.

No. 35-069R, **Interdisciplinary (General/Electronics Engineer)**, DP-801/855-3, Code 3523 — The incumbent will serve as manager for the AN/ALR-67 and AN/ALR-45F Radar Warning Receiver Second Source Program. The incumbent will

be responsible for review, coordination with other government activities and disposition of contractual documentation including plans, procedures, schedules and reports; generation of correspondence regarding disposition of contractual documentation; conducting reviews and audits at contractor's facilities; coordination with other government activities in determination of product assurance requirement; technical review and disposition of ECPs, deviations and waivers; generation of contract statement of works; review of contracts for production/second source requirements; and review of contractor production facilities for contract compliance. To apply for this position, submit an updated SF-171 to Larry L. Luxton, Code 3523, NWC ext. 2448.

No. 61-021, **Mechanical Engineer**, DP-830-3, Code 6133 — This position is project manager for the QF-86F Drone Program and Aircraft Modification for the Aircraft Department. The key activities involve repair, rebuild and modify aircraft components to meet the Navy requirements per their maintenance procedures. Also design and approve all structure modification to aircraft assigned to NWC Aircraft Department. Develop test procedures and maintenance instructions for modified components to be used on the Navy Drone Program. Send copy of current SF-171 to Max Lawson, Code 6133, NWC ext. 5096. Promotion potential to DP-3.

No. 62-124, **Electrical Engineer**, DP-850-1/2/3, Code 6232 — This is an electrical engineer position in the Range Engineering Branch, Range Department. The branch provides engineering support to the Center's ground, air and track test ranges in the areas of test facilities, design, procurement, installation and modifications to test range facilities and test projects. Incumbent will prepare engineering designs and drawings for the modification, construction or installation of electrical test support equipment, fire control systems and electrical facilities for range test programs. Submit copy of current SF-171 to Eric Kajiwara, Code 6232, NWC ext. 6287. Promotion potential to DP-3.

following information to determine if there is a special address for the inquiry. Otherwise, always refer a written inquiry to the Employee Services and Records Center in Boyers, Penn.

For changing home or check mailing address for those on annuity rolls write to U.S. Office of Personnel Management, Change of Address Section—Retirement, P.O. Box 686, Washington, D.C. 20044. NO CHANGES IN ADDRESSES CAN BE MADE WITHOUT THE WRITTEN AUTHORIZATION OF THE ANNUITANT.

For questions related to student benefits write to U.S. Office of Personnel Management, Student Certification—Retirement, P.O. Box 956, Washington, D.C. 20044.

For inquiries related to marital survey; income survey for disability annuitants; or waiver of annuity write to U.S. Office of Personnel Management, Retirement Inspection Branch, P.O. Box 579, Washington, D.C. 20044.

For reports of suspected waste, fraud, or abuse in Civil Service annuities contact U.S. Office of Personnel Management, Program Integrity—Retirement, P.O. Box 7174, Washington, D.C. 20044.

For questions involving Federal and State income tax write to U.S. Office of Personnel Management, Tax—Retirement, P.O. Box 961, Washington, D.C. 20044. CHANGES IN WITHHOLDING MUST BE IN WRITING.

For questions involving garnishment or apportionment of Civil Service Retirement annuities, or bankruptcies, contact U.S. Office of Personnel Management, Allotment Section—Retirement, P.O. Box 17, Washington, D.C. 20044.

For questions involving health insurance for Civil Service annuitants write U.S. Office of Personnel Management, Health Insurance—Retirement, P.O. Box 14172, Washington, D.C. 20044.

For questions concerning reconsideration of the collection of an overpayment write U.S. Office of Personnel Management, Employee Service and Records Center, P.O. Box 107 Boyers, PA 16020.

For questions concerning the collection of overpayments from former annuitants write U.S. Office of Personnel Management, Reconsideration & Debt Collection—Retirement, P.O. Box 300, Washington, D.C. 20044.

For reports of nonreceipt of annuity, lump sum, or refund payment contact U.S. Office of Personnel Management, Recertification, P.O. Box 7815, Washington, D.C. 20044.

The information in this article has been received by the Office of Retirement Programs, Compensation Group, Office of Personnel Management, Washington, D.C. 20415.



Personnel Development Opportunities

EFFECTIVE WRITING FOR SECRETARIES

January 28 and 29; Wednesday and Thursday; 0800-1600; Training Center. By LaNelle Thompson.

Scope: A comprehensive workshop on English grammar and its application in written business communications. The workshop begins with a brush-up on grammar including sentence structure, "tricky" grammar, and commonly made grammatical errors. The 13 symbols of punctuation will be reviewed as well as rules for their usage. Spelling principles and exceptions to the rule will be covered. A pre- and post-test will be administered so that students' weaknesses can be identified and concentration can be focused on areas that need improvement. Topics include the sentence defined and illustrated, how sentences are made, how sentences should not be made, how to write clear sentences, common errors that must be avoided, and when to use commas and other punctuation.

Deadline: January 14

Recent Additions

Code	Name	Title
0821	Conway, Terry L.	Clerk-Typist
0853	Reeves, Winette E.	Payroll Clerk
086	Duran, Isaac J.	Accountant
08622	Felkner, Delila I.	Accounting Tech.
08622	Towne, Dorothea J.	Accounting Tech.
08C	Huston, Willie C.	Auditor
2408	Gergen, Paul N.	Communications Mgt. Spe.
24311	Lasell, Jan K.	Clerk-Typist
25205	Baysa, Violeta D.	Clerk-Typist
253	Olson, Terri L.	Shipment Clerk (Typing)
2636	Lochhead, Pamela L.	Clerk-Typist
26446	Sat, Dawna	Electrician
3605	Davis, David	Computer Systems Analy.
36254	Christiansen, Robert	Electronics Engr.
3651	Moore, Michael A.	Engrg. Tech.
36823	Rickel, Ronald D.	Qual. Assurance Spec.

Recent Separations

Code	Name	Title
26446	Burns, William S.	Electrician
31142	Carroll, James K.	Electronics Tech.
3646	Michau, John W.	Machinist
3682	Alexander, Gail M.	Secretary (Typing)
61322	Witwer, Richard K.	Welder

Class schedules for Cal-State Northridge, Bakersfield and Chico

Cal-State Northridge Engineering Program

The following classes are being offered this spring for the Cal-State Northridge Engineering Program (bachelor's and master's degrees). For enrolling in these classes (other than Cerro Coso) submit an on-Center Training Request (NAVWPCEN 12410/73) via department channels to Code 094. Registration will be held in class at the first class meeting. Deadline for enrolling is 10 calendar days before the starting date of the class. Although training requests will be accepted after the deadline, that date will be used to determine whether the class will be held.

ME 370: THERMODYNAMICS (3 semester units)

January 26 - May 18; Mondays; 1530-1830; Training Center. By Professor Tim Fox, CSUN.

Prerequisite: Physics 1a (Mechanics) and Math 6c (Calculus).

Scope: Fundamental theories and engineering applications of thermodynamics with emphasis of first and second laws of thermodynamics. The thermodynamic properties of solids, liquids, gases, and mixtures. Work-producing and work-absorbing system.

Text: "Fundamentals of Classical Thermodynamics," Van Wylen and Sonntag, 3rd Edition, Wiley, SI version.

ME 501B: SEMINAR IN ENGINEERING ANALYSIS (3 semester units)

January 27 - May 21; Tuesdays and Thursdays; 1600-1730; Training Center. By Bob Rockwell, PhD., NWC ext. 5597.

Prerequisite: Graduate standing.

Scope: Vector analysis, calculus of variations, analytic functions of a complex variable, infinite series in the complex plan, theory of residues, and conformal mapping.

Text: "Advanced Engineering Mathematics," Wylie and Barrett, McGraw-Hill, 5th edition.

Note: This is a core course for the master's program in electrical engineering.

ME 590A: ADVANCED TOPICS IN FLUID DYNAMICS -- INVISCID FLOW (3 units)

January 26 - May 20; Mondays and Wednesdays; 1600-1730; Training Center. By Ray Van Aken, NWC ext. 7483.

Prerequisite: Thermodynamics and Fluid Dynamics or consent of instructor.

Scope: Application of analytical and numerical techniques to the solution of inviscid flow problems. Topics include: governing equations, one-dimensional compressible flow with area change, friction, and heating/cooling, two-dimensional compressible flow, linearized flow and the method of characteristics.

Text: "Compressible Fluid Flow," M. A. Saad, Prentice Hall, 1985.

IE 520B: ADVANCED MATERIALS ENGINEERING -- COMPOSITES (3 units)

January 27 - May 21; Tuesdays and Thursdays; 1130-1300; Training Center. By George Hayes, PhD., NWC ext. 1038 and Craig Porter, PhD., NWC ext. 2824.

Prerequisite: AM 420A (Advanced Mechanics of Materials) and IE 427 (Mechanical Properties of Materials) or consent of instructor.

Scope: This course is concerned with a class of complex materials, composites, in which fibers are deliberately oriented in a matrix in such a way as to increase its structural efficiency. The use of unusually strong, high modulus fibers and organic, ceramic, or metal matrices promise to be far more efficient than any structural materials known previously. By combining fibers and matrices with the concept of lamination, designers have today greatly increased opportunities for tailoring structures and/or materials to meet systems of forces and changing environments. The objective of this course is to introduce the student to the basic concepts of mechanical behavior of composite materials. The whole gamut of topics from micromechanics and macromechanics through lamination theory and examples using plate bending theory are developed. Equal time will be spent discussing material science issues and structural analysis/design issues.

Text: TBA.

EE 567: RADAR SYSTEMS (3 units)

January 26 - May 20; Mondays and Wednesdays; 1600-1730; Training Center. By John Johnson, Comarco.

Prerequisite: Some probability and random processes or consent of instructor.

Scope: The course will cover the following: radar concepts and terminology; the radar range equation; detection of targets in noise; CW and frequency-modulated radar; MTI and Pulse-Doppler radar; tracking radar: sequential and simultaneous lobing; radar clutter: area clutter and volume clutter; environmental effects: multipath and atmospheric attenuation; pulse compression; radar and electronic warfare.

Text: "Introduction To Radar Systems," Skolnik, McGraw Hill, 2nd edition, 1980.

Reference: "Introduction To Airborne Radar," Stimson, Hughes Aircraft.

EE 563A: ANTENNA ENGINEERING (3 units)

January 26 - May 20; Mondays and Wednesdays; 1130-1300; Training Center. By Bob Dinger, PhD., NWC ext. 1414.

Prerequisite: Electromagnetic field theory or consent of instructor.

Scope: An introduction to modern theory and practice for the design and analysis of antennas. Theoretical topics include electromagnetic fundamentals, method of moments, equivalence principles, and array pattern synthesis. Applied/experimental topics include radiation patterns, input and mutual impedances, bandwidth, impedance matching, and antennas in communication and radar systems. Antenna types to be covered include dipoles, electrically small antennas, traveling wave antennas, frequency independent antennas, microstrip antennas, aperture antennas, and antenna arrays.

Text: "Antenna Theory And Design," Stutzman and Thiel, Wiley.

Reference: "Antenna Theory And Design," Elliot, Prentice Hall.

MATH 477: DIFFERENTIAL EQUATIONS (5 quarter units)

January 16 - March 20; Fridays; 1530-2030 (1-hour dinner break); Training Center. By Professor El-Ansary.

Scope: First-order differential equations (d.e.); linear d.e.; linear systems; Laplace transform and its application to solutions of linear d.e. and systems; series solutions of second-order linear equations and/or numerical solutions of d.e.; topics in non-linear d.e. and systems; applications.

Text: "A First Course in Differential Equations With Applications," Dennis G. Zill.

UNDERGRADUATE PROGRAM IN ELECTRICAL ENGINEERING

The following required courses for the undergraduate electrical engineering program are being offered this semester (quarter).

Cerro Coso	M:	5-7:15 p.m.	
Chem 1A	W:	5-7:15 p.m.	Lab
	W:	8-8:50 p.m.	Recitation
Chem 1B	MWF:	11-11:50 a.m.	
	W:	2-4:50 p.m.	Lab
	W:	1-1:50 p.m.	Recitation
CS 15	T TH:	8:00-9:00 p.m./9:00-10:20 p.m.	
	MW:	7:30-8:30 p.m./8:30-10:00 p.m.	
Engr 25	T TH:	6:40-8:00 p.m.	
	T:	3:30-6:20 p.m.	Lab
Math 6B	MTWTH:	11:30 a.m.-12:20 p.m.	
	MTWTH:	12:30-13:20 p.m.	
Phys 1A	T TH:	5:00-6:20 p.m.	
	TH:	7:00-9:50 p.m.	Lab
	T:	6:40-8:30 p.m.	Recitation

Cal State Bakersfield
Math 477A Differential Equations F: 3:30-8:30 p.m. (1-hour dinner break)

Cal State University Northridge
ME 370 Thermodynamics (see description given above)

GENERAL COMMENTS

1. Textbooks are available at bookstores locally.
 2. Job-related courses other than those listed above or those offered under contract with Cal-State Chico or Cal-State Bakersfield, must be approved on an off-Center Training Request (DD Form 1556) before registration if NWC is expected to pay for the training.
- For more information about any of these programs or classes, contact Steve Lee or Cecil Webb at NWC ext. 2648.

Cal-State Bakersfield Business Program - Cal-State Bakersfield Administration Program

The following classes are being offered this winter for the Cal-State Bakersfield Business (bachelor's degree) and Administration (master's degree) programs. To enroll in these classes, submit an on-Center Training Request (NAVWPCEN 12410/73) via department channels to Code 094. Registration will be held in class at the first class meeting. Deadline for enrolling is 10 calendar days before the starting date of the class. Although training requests will be accepted after the deadline, that date will be used to determine whether the class will "go."

BA 374: BUSINESS AND SOCIETY (5 quarter units)
January 13 - March 17, Tuesdays, 1600-2100, (1-hour dinner break), Training Center. By Professor Graves, CSB.

Scope: Focuses on the external environment within which the business firm must operate. Considers those situations where the market system fails to solve problems that society deems important. Topics include consumerism, ecology, quality of work life, ethics in business and corporate response to the environment.

NOTE: This is a required course for the bachelor's degree in Business Administration.

ADM 620: FINANCIAL DECISION MAKING IN ORGANIZATIONS (5 quarter units)

January 13 - March 17, Tuesdays, 1600-2100 (1-hour dinner break), Training Center. By Professor Evans, CSB.

Scope: The course covers the following topics: Public Sector Project appraisal, cost benefit analysis, estimating and forecasting revenues and costs; project planning and auditing; productivity measurement; debt administration; idle funds management; and decision-making under uncertainty.

NOTE: This is a required course for the MS degree in Administration and satisfies the MPA core requirement of PPA 511: PUBLIC BUDGETING.

ECON 540: THE ECONOMICS OF THE PUBLIC SECTOR (5 quarter units)

January 14 - March 18, Wednesdays, 1600-2100 (1-hour dinner break), Training Center. By Professor Falero, CSB.

Scope: An examination of the economic principles and concepts that affect the public sector in our mixed economy; specific analysis of public expenditures and taxation theory; application of cost benefit analysis to specific expenditure programs and an evaluation of the economic implication of taxation.

SOC 405: SOCIOLOGY AND TECHNOLOGY (5 quarter units)

January 12 - March 16, Mondays, 1600-2100 (1-hour dinner break), Training Center. By Professor Nyberg.

Scope: This course examines reciprocal relationships between technology and society, emphasizing the manner in which technological changes alter basic social institutions, including the family, religion and the military, and even science itself. Special attention is given to the positive and negative impacts of technology on the individual and the dilemmas posed by the creation of a technology dependent economy.

NOTE: This course satisfies General Education Goal XIII.

GENERAL COMMENTS

1. Textbooks are available at bookstores locally.
2. Job related courses other than those listed above or those offered under the contract with Cal-State Northridge or Cal-State Chico must be approved on an off-Center Training Request (DD Form 1556) before registration if NWC is expected to pay for the training. For more information contact Cecil Webb, NWC ext. 2648.

Cal-State Chico Computer Science Program

The following classes are being offered this spring for the Cal-State Chico Computer Science Program (bachelor's and master's degrees). To enroll in these classes, submit an on-Center Training Request (NAVWPCEN 12410/73) via department channels to Code 094. Registration will be held in class at the first class meeting. Deadline for enrolling is 10 calendar days before the starting date of the class. Although training requests will be accepted after the deadline, that date will be used to determine whether the class will "go."

CSCI 397C-1: ROBOTICS (3 units)

January 10-11; February 21-22; March 28-29; Saturdays and Sundays; 0800-1600; Training Center. By Professor Harold Luxenberg, CSUC.

Prerequisite: Senior standing.

Scope: Students will be provided with sufficient background information and an introduction to the state-of-the-art in the four areas of locomotion (artificial feet), manipulation (artificial hands), computer vision (artificial eyes), and computerspeech

OPM retirement news announced

The Office of Personnel Management handles all inquiries from or about Civil Service annuitants in its offices in Washington, D.C. and Boyers, Penn., where staff has access to all necessary records. Years ago, OPM Area Offices served as local intermediaries in these matters, a role that, under the centralized system, is not efficient nor expeditious.

All inquiries, written or by telephone, should include the name of the former Federal employee, the CSA or CSF claim number, date of birth, and Social Security Number. This data allows staff to provide the most prompt response.

While it is possible to get answers to urgent inquiries by telephone, we strongly recommend that only questions which are reasonably simple and which do not require the review of records be telephoned in. A report of the death of a Civil Service annuitant is an example of a simple inquiry that is easily handled via the telephone. Such inquiries will be answered by the RETIREMENT INFORMATION BRANCH on (202) 632-7700.

If an individual wants to report a specific incident of waste, fraud or abuse of Civil Service retirement benefits, he or she can call the HOT LINE on (202) 254-9313.

When an inquiry is complex, requires the review of records, or seeks to alter records, we strongly recommend written communication. Most written communications should be addressed to: U.S. Office of Personnel Management, Employee Services and Records Center, Boyers, PA 16017.

This is where retirement records are kept. The staff at Boyers will be able to answer a number of retirement related inquiries. If it is necessary for the Boyers' staff to refer the inquiry to Washington, D.C., they will forward the necessary records with the inquiry.

If an individual can identify the exact nature of the inquiry, he can use the