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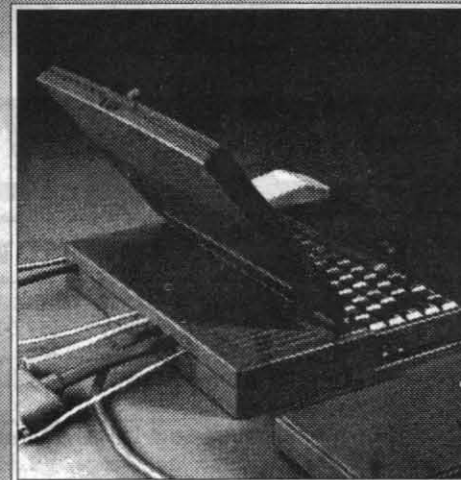
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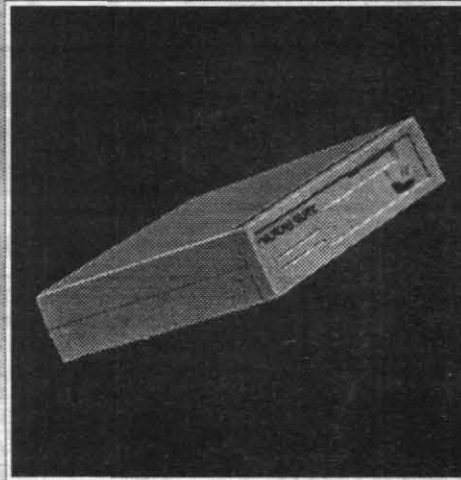
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# THE ROCKETEER

THURSDAY, SEPTEMBER 17, 1992

NAVAL AIR WEAPONS STATION, CHINA LAKE

VOL. 48, No. 37

## ASIC Design Center: First prototype chips cost less than \$125 each under MOSIS contract

By Barry McDonald  
Editor

With its first prototype logic chip already designed, produced (at a cost of slightly less than \$1,000 for eight chips) and undergoing testing, the Application Specific Integrated Circuit (ASIC) Design Center is looking for more customers.

"We're excited about what we can do and want to let the many designers on Station know about our new capabilities," said Pat Nalley, head of the Microelectronics Branch, Code 3649, which is home to the design center.

This first locally-designed ASIC was designed by Steve Conn of the Tactical Fuze Branch (Code 3294) and Bill Stout of the Microelectronics Branch. The circuit will be used in the Special Application Penetrator Fuze project being developed with bids and proposals (B&P) funding. With some 30 other components, the chip will be packaged in a thick film hybrid package, six-tenths of an inch in diameter. The circuitry provides the fuze timing necessary to fire the weapon at the proper time during penetration of hard, reinforced concrete targets. The device must operate properly while transitioning through forces greater than 100,000 gravity units (Gs).

From Steve Conn's original schematic, using the branch's computer-aided engineering tools, Stout and Conn completed the physical design, electronic simulation, verification and characterization of the circuit in about nine man-weeks. The final design was sent to the Metal Oxide Semiconductor Implementation Service (MOSIS) for fabrication, and the eight prototypes were produced in eight weeks.

MOSIS is administered by the University of Southern California and sponsored by the Defense Advanced Research Projects Agency (DARPA) and the National Science Foundation (NSF). The process is cost effective because it combines many different designs onto a

Please see **ASIC**, Page 5

## Front gate landscaping wins HD Xeriscape commendation

Landscaping at the Naval Air Weapons Station China Lake front gate visitor's center won the September High Desert Xeriscape Certificate of Commendation at a meeting of the Ridgecrest Chamber of Commerce early this month. The project was designed by Steve Cooper, landscape architect for NAWS China Lake, and installed by Earth Industries. Capt. Randy Williams, NAWS Public Works Officer and Tom McGill, head of the Environmental Project Office accepted the award on behalf of Capt. B.J. Craig, NAWS CO.

The irrigation systems used pressure compensating bubblers to maximize efficiency of water use. Water-wise plants include Blue Palo Verde, Texas Rangers, El Darica pines and Mesquite trees. The ground cover material is golden gravel, used as a unifying element to tie together all landscaping areas at China Lake.

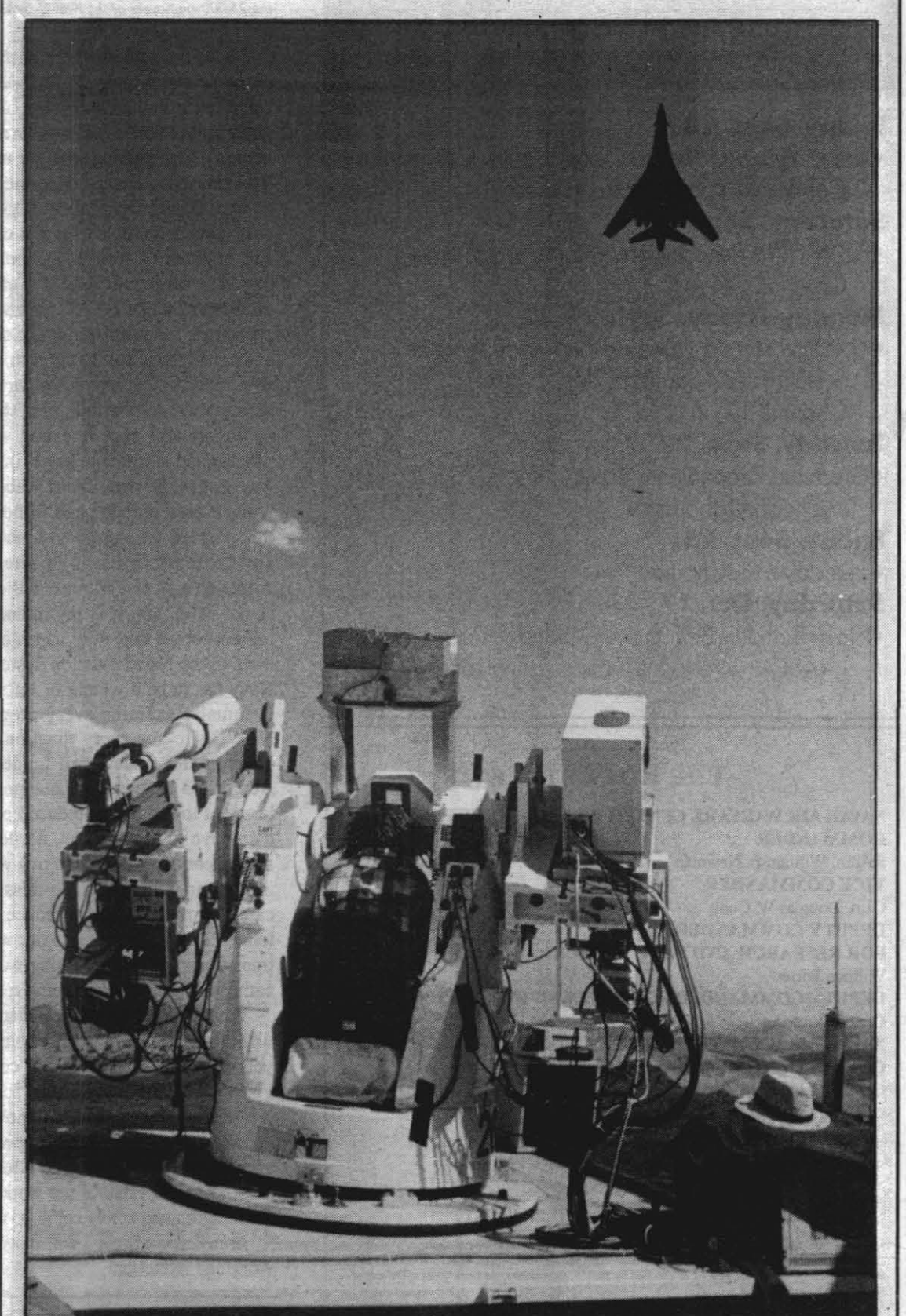


Photo by Terry Pascarella

**B-1 BOMBER** was one of several aircraft used in Long Jump '92, the high-altitude electro-optical/infrared sensor test event. See story and more photos on Pages 8 and 9.

### POW/MIA recognition planned Saturday

Balloon release set for 10 a.m. at Ridgecrest City Hall

3

### Control technology aids explosive mixing

China Lake's 150-gallon explosive mixer now remotely controlled

7

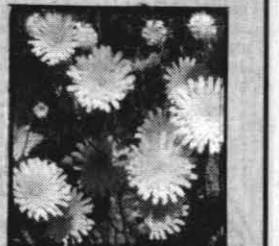
### MWR presents Drifters and Box Tops

Friday night event at Community Pool still has tickets available

11

### The Weather Report

	Max	Min	Gusts	Humidity
Wed	106	58	10	32-12%
Thurs	105	61	12	31-11%
Fri	103	68	17	-
Sat	100	55	18	-
Sun	101	58	15	-
Mon	98	60	20	38-12%
Tues	98	61	18	36-18%





# COMMENTARY

## China Lake Calendar

### Friday, Sept. 18

•The Drifters and The Box Tops, 8 p.m. China Lake Community Pool bandstand area

### Saturday, Sept. 19

•POW/MIA Recognition, 9 a.m., Ridgecrest City Hall

### Monday-Friday, Sept. 21-25

•KNID presents a video on the Naval Aviation System TEAM Strategic Plan, 6 p.m., Channel 17

### Tuesday, Sept. 22

•Graduate Recognition, 1 p.m., Room 1000D, Michelson Laboratory

### Friday, Sept. 25

•Flex day - stay home

### Saturday, Oct. 17

•Navy Birthday Ball, 6 p.m., Hangar Three, Naval Air Weapons Station China Lake



## Straight Talk

By RAdm. George Strohsahl  
Commander, NAWC

(Editor's note: The following article is the fourth in a series of personal messages from RAdm. George Strohsahl, Commander, Naval Air Warfare Center, to the 25,000 employees of the NAWC. Subsequent "Straight Talk" articles will appear in future issues of The Rocketeer.)

I have been told that the term "Mission Purification" creates fear in the hearts of many of you. While it is natural that a process that could result in the elimination of your job would be looked at with a great deal of fear, I feel some straight talk on the subject may at least help in understanding what we are doing and why we are doing it. I have refused to change the name to hide the intent of the process.

Specifically, the process is to identify direct work being done for customers at multiple sites that could all be consolidated into a single site, or at least a reduced number of sites. Where single-site consolidation is not practical or cost-effective, the process will lead to the establishment of a NAWC team with a clearly defined leader who will coordinate the work at multiple sites to eliminate redundancy, overlap and unnecessary cost to the customer. Our goal is to build more effective and efficient teams supporting the "Cradle-to-Grave" program management responsibilities of the PMA's and other customers.

We are still experimenting with the Mission Purification study process and it will take some time yet to develop a fair and objective way to get the data, build viable alternatives, and make decisions without great emotion and without dragging out the process. During this process, for any given function studied there may be "winners" and "losers" in terms of sites gaining or losing direct work. Although a precise balance in the gain and loss column between sites is not necessary, it is my intention that, in the aggregate, all sites remain robust and fully capable of functioning as an essential element of the Naval Aviation Systems Team. Clearly in every case, the Navy has to be a winner or we won't make a change. We intend to eventually examine every program supported by more than one NAWC site and every function performed by multiple sites. The order of this review will be determined by the NAWC Executive Board and be based on our perception of the probable payoff in terms of lower cost of reduced personnel required. It would be very disruptive to the program, not to mention costly, to start large scale movement of work around in a willy-nilly manner. Rest assured that this is not our intention. The mission purification plans will be very carefully thought out to reduce up-front cost and personnel turbulence. The movement of work will be time-phased to permit orderly transitions. Personnel losing work will be offered a choice of relocating with the work, or being reassigned to other positions.

While I don't have an estimate yet of the number of man-years of work that may move when we've completed the process in about five years, nor the manpower and cost savings we'll achieve, I am convinced that there is a potential for significant savings in this area, and it is an essential element of our overall downsizing plan. It is vital that we get your continued full cooperation in this study process. Without accurate data and informed alternatives offered up by those of you most knowledgeable of the work being done, the decision process in Washington will surely come up with some badly planned changes.

In my next article I will discuss the third element of downsizing, workload reduction.

## Bake sale for Brandon Melzark

In an effort to raise money for Brandon Melzark's heart transplant, the China Lake Police and Fire Divisions and the Auxiliary Security Force will have a bake sale on Oct. 2 and 3. The sale, set for 9 a.m. to 5 p.m., will be held at the Naval Air Weapons Station, China Lake Navy Exchange.

Brandon, the son of AME 3 Jim and Anne Melzark, was born in July with a heart condition known as Hypoplastic Left Heart Syndrome. He is currently surviving at Loma Linda Hospital, waiting for his chance at life.

All proceeds from the sale will go to Brandon Melzard's Heart Fund, which has been established at the NWC Credit Union.

Medical bills are mounting and financial assistance is needed.

## Pages From The Past

### September 17, 1982

Demolition work began on old duplex housing this week with the first of about 500 homes to be demolished. . . RIF and contracting out procedures were explained to employees following a commercial activities cost comparison study base support efforts. . . H.B. Mathes and J.E. Crumb were honored with the W.S. Diehl Award for technical papers by NAVAIR. . . Burrell Hays and Capt. J.J. Lahr saluted graduates of the Center's university degree programs at the annual Grad Luncheon.

### September 15, 1972

Frank G. Buffum won the Navy Meritorious Civilian Services Award for work in the Naval Science Assistance Program. . . RAdm. Henry Suerstedt Jr. has been selected to relieve RAdm. W.J. Moran as NWC Commander later this fall. . . An Aero Space Lines "Guppy" ferried in the wreckage on an A-7D to be used in ballistics testing. . . Ron Atkinson of the Fuze Department will present a paper at the Society of Photo-Optical Instrumentation Engineers.

### September 14, 1962

Rear Admiral J.B. Tibbits of Carrier Division 15 was hosted by NOTS Commanding Officer Capt. Charles Blenman during his official tour of China Lake. . . Art Tarro, a former NOTS sailor, is in the Navy Enlisted Scientific Education Program. . . Charles Wiley is the new NOTS director of education. . . Paul Payne was instrumental in creating a satellite receiving station (Navy Correlation Detection) at China Lake. . . CPO Robert Burns retired from VX-5.

### September 17, 1952

Eight men, including Lt. E.D. Jones of NOTS, reported seeing a flying saucer near Mt. Whitney. . . Patti Grimm is the Desert Empire Fair Queen. . . A.B. Christman is the new president of the China Lake Camera Club. . . Dr. Charles Richter of Cal Tech will lecture on the Anchorage earthquake. . . Floyd Furnish heads the NOTS Toastmasters Club. . . New parking areas are being created between the WAVE barracks and transient quarters. . . 14 candidates are seeking Community Council posts for the coming year.

## Former Vitro manager indicted for conspiracy to defraud government

George L. O'Connell, United States Attorney, Eastern District of California announced today that Charles Joseph McIntosh, former Ridgecrest operations manager of Vitro Services Corporation, Ridgecrest, Calif., was indicted by a federal grand jury in Fresno on one count of conspiracy to defraud the United States, nine counts of embezzlement of government property and three counts of making false statements to the United States. The charges arose out of McIntosh's duties as operations manager at Vitro Services Corporation from June, 1990 through September, 1991. McIntosh, 63, is currently operating his own consulting firm, Sierra Consulting, in Ridgecrest.

The indictment alleges that McIntosh, along with Jerry Ralph Kissick, a former program manager at the

Naval Air Warfare Center China Lake, devised and implemented a scheme to defraud the United States by obtaining payment for personal items—such as, a refrigerator, camping equipment, computer hardware and software and other items—through the submission of false and fraudulent claims on government contracts. According to the indictment, Kissick would order personal items through McIntosh, who in turn would submit vouchers for payment to the United States. The vouchers would claim payment for goods and services which were supposedly related to a government contract. However, the items were in fact for the personal use of Kissick and others. McIntosh would then deliver the goods which were paid for by the government.

On May 7, 1992, Kissick was indicted on conspiracy

and embezzlement charges. On August 12, 1992, Kissick pled guilty to the charges and is cooperating in the investigation. Kissick is scheduled to be sentenced November 2, 1992.

The indictment is the latest result of an investigation launched in February, 1992, by the United States Naval Investigative Service, headed by Special Agent Fred Booth. If convicted, McIntosh faces a maximum of 10 years in prison and a fine of \$250,000 for each embezzlement count and a maximum of five years in prison and a fine of \$250,000 for each conspiracy and false statement count.

The case is being prosecuted by Assistant United States Attorney Mark E. Cullers.

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# What's happening

On Thursday, Sept. 17, members, guests and interested friends of the Indian Wells Valley Literacy Council are invited to a pot-luck dinner at 815 Bowen Street onboard the Naval Air Weapons Station China Lake. The dinner starts at 6:30 p.m., followed by a general meeting and program. During the program, Mary Bischell will talk about her missionary travels and literacy work in Korea.

###

To catch people up-to-date on what has happened, what is happening, and what may happen in the world of earthquakes, Dr. Glen Rocquemore, geologist, seismologist and former Ridgecrest resident, is the Maturango Museum's guest speaker at a lecture slated for 7:30 p.m. Friday, Sept. 18, at City Council Chambers. Rocquemore will discuss recent earthquake activity and compare the Yucca Valley with the Indian Wells Valley as it pertains to earthquakes.

###

On Saturday, Sept. 19, BOSS will hold its end of summer blowout jam. Music by John Phillips, Gold Voice Productions, will be heard from 9 p.m. to 1:30 a.m. at Faris' at the Heritage. Cost is \$5 per person. Hors d'oeuvres will be served and a no-host bar will be available. While the public is invited, attendees must be 21 years of age or older.

###

For Maturango Museum's first Saturday Adventure this fall, Lois Hinman, a local artist, will give a pottery workshop. The workshop, designed for 20 children, 8 years old or older, will be start at 2 p.m. on Saturday, Sept. 19, at the museum. Each child will receive a ball of clay from which they will fashion a pinch pot. They will then slip decorate it. After the class, Hinman will take the pots, fire them and return them to the museum for pick-up.

###

On Saturday, Sept. 19, the Indian Wells Valley Association for Retarded Citizens will hold its second annual Charity Stew Cook-Off in the patio area of the Root Cellar, 1842 S. China Lake Blvd. Cooking begins at 8 a.m., with judging at 2 p.m.

###

Kern County's Health Department, 250 W. Ridgecrest Blvd., will hold an immunization clinic Sept. 21 from 8:30 a.m. to 11 a.m. and from 1 p.m. to 3 p.m. A parent or legal guardian must be present to sign consent forms for persons under 18 years of age. The charge for each immunization required for school entry (polio, whooping cough, diphtheria, tetanus, measles, mumps, and rubella) and for Hib vaccine is \$3 with a maximum charge of \$10 per family per visit. Medi-Cal stickers will be honored for Child Health and Disability Prevention (CHDP) program-eligible children. If children have had a recent physical examination under the CHDP program, they are eligible to receive all immunizations without charge provided they are still eligible for that program.

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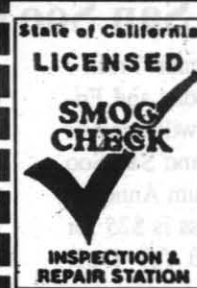
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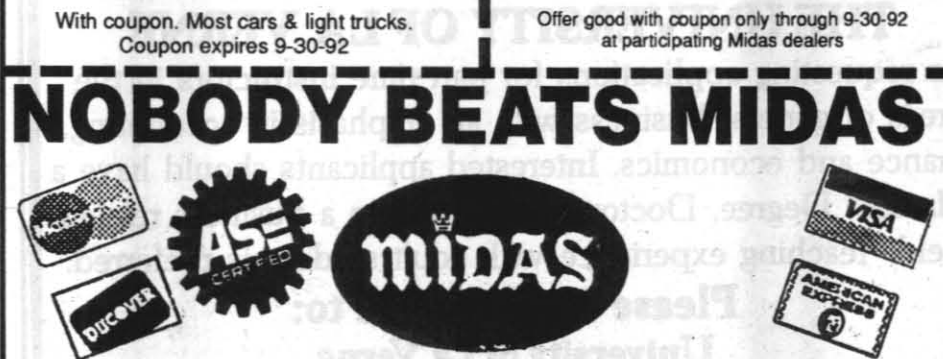
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# NAWS personnel meet umpire needs in IWV Pony Youth Baseball

By Peggy Shoaf  
Staff Writer

For the first time in its history, the Indian Wells Valley Pony Youth Baseball Association had plenty of umpires this season, noted Rick Booth, head of the IWV Umpire Association. This was due mainly to the participation of nine military personnel stationed at the Naval Air Weapons Station China Lake or one of its tenant commands.

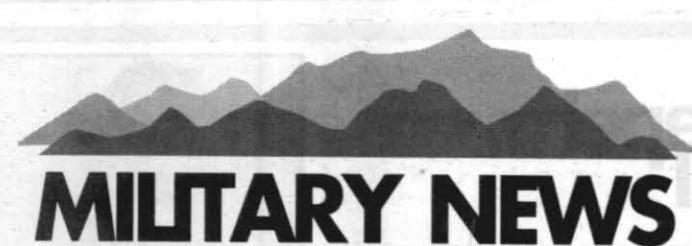
The participants were Lt. Mark Sullivan, MSC Tim Schlund, AD2 Casey Lulow, AK2 Orville Horner, ABHC Douglas Carr, AKA Robert W. DeJarnette Jr. and Lt. Barry W. Coceano, members of the NAWS military structure; ATC Mike Bass, from Air Test and

Evaluation Squadron Five (VX-5); and AGC Randy Landis, Chief Petty Officer In Charge of the Navy Oceanography Command Detachment.

"These men came out on their own time and attended classes, to learn the major league rules so they could pass the test that allowed them to be umpires," Booth said. Each of them officiated a minimum of two games per week. They were always dependable and gave 100 percent."

"They were great," said Jim Brown, presidential of the local baseball association. "We had great military involvement this year."

Brown was particularly impressed with the actions of Lt. Sullivan, head of the Naval Air Weapons Station China Lake Aviation Supply Division. "If there



Lt. Mark Sullivan

The baseball association president went on to say how Sullivan not only devoted time to umpiring, officiating more than 95 percent of the games in the Pinto Division (age 7-8), but is also an active member of the baseball association's board of directors, along with his wife, Monica. He is also the league's assistant equipment manager.

China Lake. "If there was a 'Military Man of the Year' award as far as his involvement with community youth activities, then (Lt.) Sullivan would get it," Brown said.

"We had to have the military out there to keep them in line," Sullivan said laughingly. Sullivan noted he feels very strongly about military personnel putting something back into the community where they are stationed. "It's better to get involved rather than just to sit back and complain about things," he said. "Besides, we have traveled to and seen lots of places, and had lots of ideas to extend to the existing program."

The players also appreciated Lt. Sullivan's help. The winners of the Pinto Division presented Lt. Sullivan with a trophy of his own, for all the time he spent with them, explaining where the strike zone was, why they were called out or safe and showing them what good sportsmanship is all about.

# Enlisted Commissioning Program deadline nears

Washington (NNS) — Enlisted sailors who are seeking a commission and are interested in completing their bachelor's degree are encouraged to submit applications for the Navy's Enlisted Commissioning Program. The application deadline for FY93 is Nov. 1.

ECP provides highly qualified sailors who have previous college credit an opportunity to complete their degrees and earn commissions as Naval officers.

ECP selectees pursuing non-technical degrees must have 45 fully transferrable semester hours of earned credit. They have 36 months to complete their degrees.

See the command career counselor or pick up a copy of OPNAVNOTE 1530 (dated June 2, 1992) for more information on eligibility requirements and application procedures.

Active-duty personnel selected for ECP attend Naval Reserve Officer Training Corps (NROTC)-host universities full-time and are commissioned upon graduation. Selectees receive permanent change of commissioned upon graduation. Selectees receive permanent change of station orders to enroll at one of more than 60 NROTC-host colleges and universities.

Enroute, they attend a six-and-a-half week academic and physical fitness training program at the Naval Science Institute, Newport, R.I. Selectees receive full pay and allowances at their enlisted paygrades and are eligible for advancement.

Selectees are responsible for tuition, fees and books; however, they may use the Veterans Education Assistance Program (VEAP) or GI Bill educational benefits, if eligible. Sailors who have completed a bachelor's degree are ineligible.



# POW/MIA recognition set Saturday

With Prisoner of War/Missing in Action Day recognized with the flying of the flags on Blandy and at the Headquarters Building Tuesday, Vietnam Veterans of America, Chapter 283, is planning its annual balloon release this Saturday on the west lawn of Ridgecrest City Hall.

The program will begin at 9 a.m. with the actual release scheduled for 10.

Of the 2,268 personnel listed as missing in Southeast Asia, 450 are Navy members. There have been many "live sighting" reports involving POW/MIAs since the fall of Saigon in 1975.

FLAGS flew on Blandy and around the Headquarters Building lawn Tuesday, POW/MIA Day.

Photo by Terry Pascarella



# Chapel Call

By Lt. Gerald L. Goodman, CHC, USNR  
Assistant Command Chaplain



## Glory of God

Many years ago, some men were panning for gold in the state of Montana. It being a cooperative project, the prospectors had agreed in advance that if they should make a strike they would tell no one about their find. After a time, one of them found an unusual stone. Breaking it open, he was excited to see that it contained gold. Working eagerly, the prospectors soon discovered an abundance of the precious metal. Happily, they began shouting, "We've found it! We've found gold! We've struck it rich!" They then proceeded to go to a nearby town for additional supplies. Before leaving camp they reminded each other of their pledge of absolute secrecy. While they were in town no one breathed a word about their good fortune. However, when they were getting ready to return to camp, they were horrified to discover several hundred of the local townsmen preparing to follow them. And when they asked the crowd to tell them who had revealed the secret, the answer came, "No one had to. Your faces showed it."

Before His arrest and the beginning of His Passion, Jesus delivers a final, farewell discourse to His disciples. "My little children," He says, "I shall not be with you much longer. Love one another, just as I have loved you, you also must love one another. By this love you have for one another, everyone will know that you are My disciples." (Jn. 13:33, 34-35). When the discourse ends, Jesus raises His eyes toward Heaven and prays for His followers, saying,

"In them I am glorified ...  
I have given them the glory You gave Me  
that they may be one as We are one ...  
I have made Your love known to them ...  
so that the love with which You loved Me may be in them,  
and so that I may be in them. (Jn. 17:10, 22, 26)."

The glory of God, the essential nature of God, revealed in the Person of Jesus Christ is Love (with a capital "L"). God is Love. And "The Father and I are one," Jesus said. At the deepest level of His being Jesus was so at one with the Loving Presence of God that it was reflected not only in His face which shone like the sun on the Mount of Transfiguration, but also in His ministry of loving service back down in the valley, among the people.

Jesus is telling us that our whole world is enveloped in the wonder of Divine Mystery. Ours is to enter into the great Mystery of Love in faith. Ours is to lovingly embrace the Mystery of the Kingdom of God within us so that it shines through in our lives of loving service.

## Strategic Plan video airs on KNID

Next week, KNID-TV, the Navy Channel on Benchmark Cablevision will highlight the Naval Aviation System TEAM Strategic Plan for 1992-93. The short video tape explains the Strategic Plan and talks about how the Naval Aviation Systems TEAM wireach the goals it sets forth. VAdm. W.C.

Bowes, Commander of the Naval Air Systems Command, says it is important for all members of the team to have an opportunity to view this video tape and read the plan itself. The video will be broadcast at 6 p.m. Monday through Friday on KNID-TV Channel 17.

## Military Affairs Committee sponsors annual Navy Birthday Ball at NAWS China Lake

Ridgecrest and China Lake residents are invited to celebrate 217 years of service to the country at the U.S. Navy's Birthday Ball Saturday, Oct. 17. Set for Hangar Three aboard the Naval Air Weapons Station China Lake, the gala event features a guest speaker from the Navy's senior leadership and live music by the "Burners."

The annual event is sponsored again this year by the Military Affairs Committee of the Ridgecrest Chamber of Commerce. A social hour begins at 6 p.m., followed by dinner (petite filet and

chicken) catered by the Carriage Inn, at 7 p.m. The traditional cake-cutting ceremony and the guest speaker will start at about 8:30 p.m., with dancing to follow.

All tickets are by advance sale only. Tickets are \$30 per couple for active-duty enlisted members, \$55 per couple for active-duty officers and \$75 per couple for civilians. Anyone interested can buy their tickets at the Ridgecrest Chamber of Commerce, from members of the Military Affairs Committee and at the NAWS China Lake Public Affairs Office.

## New Champus handbooks published; will be arriving soon for service families

Champus' new handbook will soon be available to service families.

The 156-page handbook has been completely updated with the latest information about the standard CHAMPUS program's benefits, procedures and eligibility requirements, including new provisions for some service members who leave active duty and their families. The book was last published in 1990.

Also discussed in the handbook are the uniformed services' Active Duty Dependents Dental Plan and CHAMPVA, a program similar to CHAMPUS that is operated by the Department of Veterans Affairs for the families of disabled veterans.

The cover of the new handbook is green with white lettering. The red-white-and-blue 1990 handbook and all previous editions are outdated, and

should be discarded immediately.

The new handbook is being shipped to the military services' distribution centers, to the U.S. Public Health Service, the U.S. Coast Guard, and to the headquarters offices of all CHAMPUS claims processors.

Requests for supplies of the handbook may be forwarded to the appropriate publication distribution centers. Navy requesters should use this stock number: SN 0510-LP-209-3800. Other requesters should refer to CHAMPUS Handbook 6010.46H, dated July 1992, when ordering from their distribution centers.

Individuals who want copies of the new handbook should contact Micki Edge, the Naval Air Weapons Station China Lake health benefits advisor at 939-8007.

**KNID**  
Navy Channel 17  
Monday - Friday, Sept. 21-25

5:30 p.m. — Navy News This Week  
6:00 p.m. — Naval Aviation Systems TEAM Strategic Plan  
6:15 p.m. — 1991 CFC  
6:25 p.m. — Legacy of the Lake  
6:50 p.m. — Last Jump-PR1 Luallen  
6:55 p.m. — Neural Networks-Modeling The Brain  
7:05 — Balancing Technology and Nature

## All Faith Chapel Services

<b>Protestant</b>		<b>Roman Catholic</b>	
Sunday Worship Service, East Wing	8:00 a.m.	Sunday Mass, Main Chapel	9:00 a.m.
Sunday Worship Service, Main Chapel	10:30 a.m.	Daily Mass, Blessed Sacrament Chapel	11:35 a.m.
Sunday School, 1008-10 Blandly & 1903-05 Mitscher	9:00 a.m.	Confessions, Sundays	8:15 - 8:45 a.m.
Bible Study (East Wing), Wednesday		Confessions, Weekdays	By appointment
(September thru June)	11:30 a.m.	Religious Education Classes, Sunday	
Men's Prayer Breakfast, East Wing, Thursday	6:30 a.m.	(September thru May)	
Officers' Christian Fellowship/Christian Military Fellowships,		1902 Dibb, 1002 Blandly,	
East Wing, Thursday	7:00 p.m.	1008-10 Blandly &	
		1903-05 Mitscher	10:15 a.m.
<b>Jewish</b> (446-4152 Messages)		Adult Education Classes, Thursdays	
All activities held in the East Wing		(September - May)	
Weekly Services, Friday	7:30 p.m.	St. Ann's School Library	7:00 - 8:00 p.m.
Hebrew Classes, Saturday (October thru June)	2:00 - 5:00 p.m.	RICA, St. Ann's School Library	8:15 - 9:45 p.m.
Adult Education, Saturday (October thru June)	10:00 a.m. - noon	<b>Islamic</b>	
Religious School, Sunday		Jumaa Prayer, Friday (1002 Blandly)	1:00 p.m.
(September thru June)	9:30 a.m. - 12:30 p.m.		

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Chaplain G. L. Goodman, LT, CHC, USNR  
Batseva Gluckman, Student Rabbi  
Office Hours: Monday thru Friday, 0730 - 1630  
Phone 939-3506, 939-2773 and 939-2873

## Bowling teams needed for Saturday night

Openings are available for several teams for the Thursday Night China Lake Code League. This is a handicapped, mixed league with the bowling beginning at 6 p.m. Five-member teams can be made up of all men, all women or a mix.

An organizational meeting will be held tonight (Sept. 17) at Hall Lanes at

6 p.m. to sign up new teams and vote on by-laws.

The league is open to all military, DOD and contractor employees and military or DOD dependents over 18 years of age. For further information contact Hall Lanes at 939-3471 or Scot Rogala at 939-3926.

## Trap and Skeet Club has membership drive

From now through mid-October, the Trap and Skeet Club at the Naval Air Weapons Station China Lake is sponsoring a membership drive.

Anyone interested in joining

the club, or learning more about trap and skeet shooting, can call Rick Shedlock at 375-4354, Chris Johnson at 371-5059 or Joe Leles at 375-8715.

## Kung Fu and San Soo class offered at gym

Learn the art of self-defense. From 7 to 8:30 p.m. every Wednesday and Friday, instructor Seth Podell will uncover the mysteries of Kung Fu and San Soo at the China Lake Gymnasium Annex.

Monthly cost for the class is \$25 for military personnel, \$30 for DoD

employees and \$35 for all others. The daily fee is \$3.50 for military, \$4 for DoD and \$4.50 for all others.

These classes are available through the Morale, Welfare & Recreation Department's Sports Division, 939-6542, at NAWS China Lake.

## China Lake Ski Club invites new members

Winter is just around the corner and the China Lake Ski Club is seeking new members. This is the time to become a member notes Dennis Rowell of the club. A special membership sign up meeting is set for El Charro Avitia tonight (Thursday) from 5 to 7 p.m. Membership benefits include unlimited

use of the Club's cabin at Mammoth Mountain, a beginner's weekend, a dry land school and organized trips to other ski areas.

Anyone interested in the Ski Club is invited to attend tonight's meeting. For additional information call Rowell at 446-5049 or Lee Wood at 377-5692.

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- Apple CD Caddy (Box/5) ..... \$84

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# SPORTS

## Rattlesnake Relay today

This afternoon (Thursday), the Over the Hill Track Club is hosting its annual Rattlesnake Relay at McBride Park. Registration starts at 5 p.m., with the race starting at 6 p.m. Cost is \$2 per entrant.

The course is approximately 10 miles long and run by three-member teams. Each team member runs a 3.3-mile loop. Total team times are adjusted according to a handicap system based on age, sex and ability. Awards are given three deep for each team category. Categories include mixed, men, women and family (all members must be in an immediate family).

This year the club has added a non-relay walkers' category. All walkers compete against each other by walking one 3.3 mile loop of the course.

Following the race, there will be a potluck and the election of officers for the 1992/1993 season. The club will provide drinks, hotdogs and fixings. Each participant is asked to bring a side dish to share (A through L, desserts; M through Z, salads).

This annual event started in the early 1970s. It gets its name from the characteristic serpentine route and the fact the rattlesnake is native to the local area.

## Kern closes Lake Ming Saturday and Sunday

On September 19 and 20, (Saturday and Sunday) the Kern County Boat Club will be conducting Family Ski Weekend at Lake Ming. Because of this special event, Lake Ming will be closed to all public access on these days and will reopen for normal use on Monday, Sept. 21.

Further information regarding this event can be obtained by calling the Kern County Boat Club at 872-3241.

## Tennis club sets singles tourney at China Lake courts next week

On Sept. 26 and 27, the China Lake Tennis Club will hold its "Singles Tournament" at the NAWS tennis courts.

All residents of Ridgecrest and the Indian Wells Valley (including Burrough's High School players) are encouraged to enter. The events offered will be Men's and Women's "A," "B," and "C." Fees are \$10 for CLTC members and \$12 for nonmembers. The entry deadline is Sunday, Sept. 20, at 6 p.m. Entry forms are available at the NAWS

tennis courts.

A social will be held on Saturday evening at Hitter's following the first day's competition. A sign-up sheet for the social will be available at the courts Saturday morning.

Other upcoming tennis tournaments include the Bishop Tennis Tournament, in Bishop Sept. 19 and 20, the Haugan Memorial Tournament in Ridgecrest Oct. 17 and 18, and the Doubles Tournament in Ridgecrest Nov. 14 and 15.

## Marines prepare for their 17th annual marathon run

On Oct. 25, the 17th annual Marine Corps marathon will take off in Arlington, Va. Starting at 9 a.m., the run will begin at the Marine Corps War Memorial (also known as the Iwo Jima Memorial), cross the Potomac River into Washington, through the city's Georgetown section and back to the memorial. The course is basically flat.

Registration is limited to the first 13,000 people to enter the race or at 10 p.m., Oct. 24, whichever comes first. The race is open to anyone who is physically fit; however, individuals age 14 and younger are discouraged from entering.

Each individual who enters receives a t-shirt and those finishing the course will also receive a commemorative medal.

Entry fee is \$21 for those entrant forms postmarked by Oct. 1, and \$30 for entries postmarked afterward.

Entrance forms can be received by calling (commercial) 1-703-640-7225 or (DSN) 278-7225.

### ASIC from Page 1

single large wafer fabrication run. The typical cost of a wafer run is between \$50,000 and \$80,000. By dividing this cost among many customers, individual expense is significantly reduced. Cost varies slightly depending upon the size of the chip, the feature size and the number of prototypes fabricated.

Pete Lilly from the Systems Development Branch (Code 3571/C28), who helped Stout with the computer programming, said he has seen full custom IC designs cost over \$250,000 to develop, making it cost prohibitive for many military programs. MOSIS is a very cost effective system for verifying the design, layout and system functionality without spending as much time or money as it has typically taken through a contractor's facility, Lilly said.

The chip, Stout explained, is a "standard cell," which means it uses design elements from other previously characterized and verified designs, instead of designing each element from the ground up, which is known as "full custom" chip design.

Lilly explained that, while the major electronics firms had their own cell libraries to work from and used unique proprietary Electronic Design Automation (EDA) software, the small independent designers, like China Lake, had no sources to tap. This gap was filled by commercial hardware and software vendors who recently developed MOSIS compatible tools for designing standard cell IC products.

MOSIS has been in place since 1981 and has produced more than 12,500 different designs. "Only in the last two years or so have the tools become cost effective for places like China Lake to take full advantage of," said Stout. The Microelectronics Branch was able to purchase these tools through the Capital Purchase Pro-

gram (CPP), and the labor to develop this technology was funded through the Management Support Items (MSI) program.

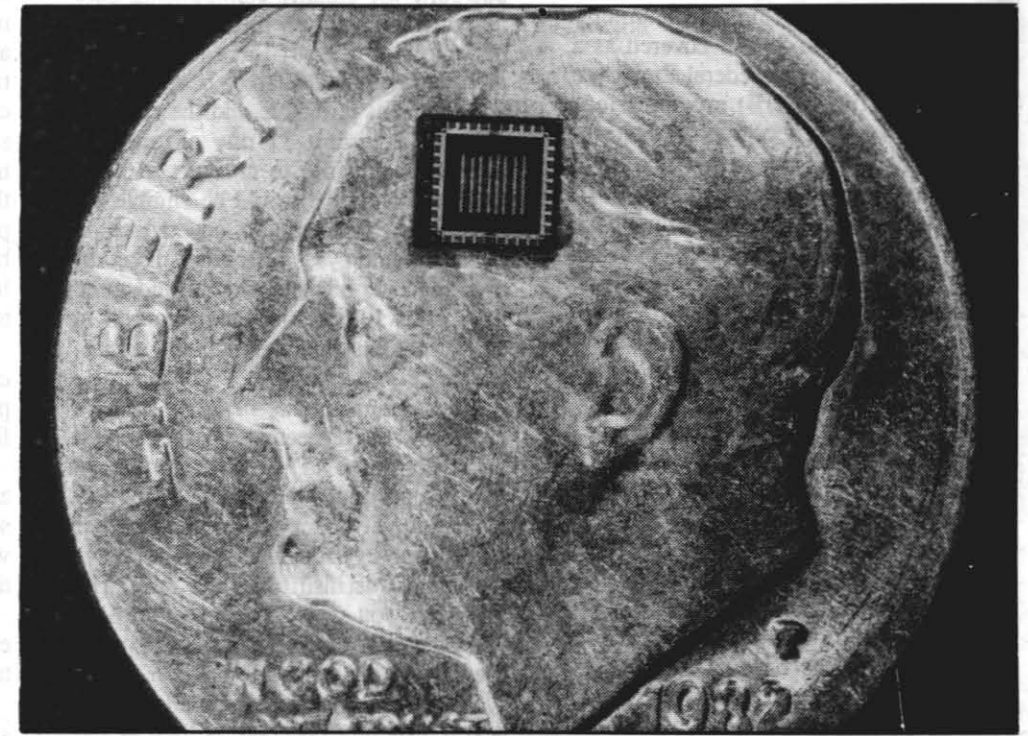
"Virtually all electronic systems designed today will have to use ASIC technology to package all of the required electronic functions into the fixed weapon volume," said Stout. "If China Lake did not have this design capability, we would not be able to develop prototype systems for our customers."

Lilly said, "Standard cell design using sophisticated EDA tool suites is the way industry is going. By developing this capability in-house, we can keep the cost of future ASIC devices to a minimum, while providing the latest technology to our customers."

Keeping the Navy up-to-date with state of the art design tools is the ultimate purpose of the MSI initiative to develop the ASIC Design Center within the Microelectronics Branch. "It was originally approved as a four-year MSI and we have already produced our first chip in the

first year, so I think we will get approval to continue the project," said Stout.

"The branch has identified three potential demonstration ASIC designs for FY 93," said Nalley. "As the design process matures and confidence in our design capabilities increases, Station project offices should feel more comfortable using the in-house ASIC design capabilities rather than relying on captive commercial vendors."



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# Health insurance under the Federal Employee Health Benefits program

By John Powers  
Code 221

Today I would like to get back to benefits available from our civil service retirement system and talk about health insurance.

Employees are eligible to continue health benefits coverage into retirement if they retire on an immediate annuity and have been enrolled or covered as a family member in the Federal Employee Health Benefits (FEHB) program since (1) his or her first opportunity to enroll; or (2) for at least five years of service immediately preceding retirement. To meet these requirements you do not have to be enrolled in one particular plan for the required amount of time. The requirement is met as long as you have been under the FEHB program. Therefore, you can change plans and still meet the five-year requirement.

In addition, coverage under the Uniformed Services Health Benefits program, which includes CHAMPUS, can be used to meet the five-year requirement; however, you must be enrolled in FEHB at the time of retirement.

You must be eligible for an immediate annuity in order to continue health insurance coverage. There is an exception to this rule for FERS employees. Under a provision of FERS, known as the "MRA plus 10" provision, employees who separate from service after

attaining the minimum retirement age (currently age 55) and completing 10 years of creditable service (including at least five years of civilian service) are eligible for an immediate annuity. This annuity is subject to a reduction for each month the retiree is under age 62 when the annuity commences. To lessen this age reduction, separated employees may postpone the annuity commencing date to the first day of any month before they become age 62. If the annuity commencing date is deferred, health insurance benefits terminate and the employee would have a 31-day extension, would be eligible to convert to non-group coverage, or would be eligible for temporary continuation of coverage.

FERS employees who defer the commencing date of their annuity under the MRA plus 10 provision, may reenroll in an FEHB plan when their annuity actually starts.

The amount of the health insurance premiums for retirees is the same as an active employee. The only difference is that the premium is deducted monthly from your civil service annuity rather than biweekly from your paycheck. If the annuity is insufficient to cover the premium, you may make premium payments directly to the Office of Personnel Management.

A surviving spouse is also eligible for health insurance coverage as long as she is eligible for a survivor annuity. If leaving a less than full survivor annuity,

I would recommend that the survivor annuity be large enough to cover the cost of the premiums plus anticipated annual increases. The premium can then be deducted from the survivor annuity and eliminates the need to mail the premium to OPM.

**Temporary Extension of Coverage and Conversion.** If an enrollment in health insurance terminates upon retirement, coverage continues for 31 days after the termination date. During this time, employees may convert the group coverage to a non-group policy with the same plan. Evidence of good health is not required and the plan cannot reject the request for conversion because of a pre-existing condition. If a family member loses coverage under the enrollment, he or she also may be eligible to convert to a non-group policy.

**Temporary Continuation of Coverage.** Public Law 100-654 provides temporary continuation of FEHB coverage for:

- 1) 18 months for employees who separate from federal service, unless the separation is for gross misconduct, and would not otherwise be eligible for continued coverage;
- 2) 36 months for children of federal employees or retirees who lose their status as family members; and
- 3) 36 months for certain former spouses of employees or retirees who would not otherwise be eligible to continue FEHB coverage.

In each case, the former employee, child, or former spouse is responsible for paying the entire amount of the health benefit premium (employer and employee share) plus a two percent administrative charge.

**Health Insurance and the Spouse Equity Act.** Under the Spouse Equity Act, certain former spouses of civil service employees may qualify to enroll in a health benefits plan under the FEHB program.

Generally, the former spouse must not have remarried before age 55, must have been covered as a family member in an FEHB plan at any time during the 18 months preceding the date of dissolution of marriage, and must provide documentation (such as a court order) indicating future entitlement to any of 1) a portion of the employee's annuity, 2) survivor annuity based on a court order, 3) survivor annuity elected by the employee; or 4) similar benefits under another retirement system for government employees.

If eligible for health insurance under the Spouse Equity provisions, a former spouse must pay both the employee and government share of the premiums.

If you need further information, I suggest you contact your PMA team to help you.

*NEXT WEEK look for "Life Insurance Under the Federal Employee Group Life Insurance Program."*

# Hispanic Heritage explored and saluted by Department of Defense

For 500 years, Hispanics have contributed to America's progress. They explored and helped settle the country, influenced the culture and gave their lives in its defense.

Hispanic Heritage Month in the U.S. and at China Lake, which runs through Oct. 15, recognizes the contributions Hispanic-Americans have made. This year's theme is built around the quincennial anniversary of Christopher Columbus' discovery of the New World in 1492. The theme is "500 Years of Hispanic Heritage, 1492-1992 — Contributing to America's Progress."

"The Hispanic community has given us generals, admirals, philosophers, statesmen, musicians, athletes and Nobel Prize winning scientists," said Secretary of Defense Dick Cheney.

Some believe that Hispanic-Americans are just one group. That's not true, he said. They include Mexican-Americans, Puerto Ricans, Cuban-Americans, Spanish, Dominicans, Filipino-Americans. The diversity in their lifestyles, languages, interests, beliefs and customs adds ethnic richness to the American culture. Here are some general facts about Hispanic-Americans:

- Mexican-Americans are the largest and oldest group in America, followed by the Puerto Ricans and Cuban-Americans.
- By the year 2020, predictions indicate that Hispanic-Americans will be the largest cultural minority in the United States, accounting for about 15 percent of the total population. Hispanic-Americans number about 25 million people, or 10 percent of the population.

- Hispanic families are more likely to be found in urban areas than non-Hispanic families.
- Hispanic-Americans tend to be younger, on average, than non-Hispanics. Recent studies show the average age of Hispanics is 25.1 years versus 31.9 years for non-Hispanic-Americans. Within the Hispanic-American community, Mexican-Americans and Puerto Ricans are the youngest, while Cuban-Americans are the oldest.
- The Central and South American population in the U.S. has grown more than 65 percent since 1962.
- On the average, Hispanic-American families tend to be larger than non-Hispanic-American ones. The average non-Hispanic-family has 3.1 members; Mexican-American, 4.1; Puerto Rican, 3.27; Cuban-American, 2.9; Central and South American, 3.57.

## Wellness Corner

### Blood draw continues

The Wellness Program will continue its annual fall Blood Draw for all civil service, military and attached activity employees at China Lake through Oct. 2.

Appointments may be made via computer by connecting to the SCFC VAX and typing in WELLNESS at both the "username" and "password" prompts. If it's impossible to make your appointment by computer, call the Wellness Program Office, 939-2468, and leave a

message, giving your name, code, phone number and the date, location and time you prefer.

Date	Location
Sept. 17	Armitage Field; NAF-80, Bldg. 20192
Sept. 18	Training Center (appointments from 6:45 to 8:30 a.m.; walk-ins from 8:30 to 9 a.m.)
Sept. 22	CLPL, call Kathy Learman (939-7944) for appointment
Sept. 23	EWTES, In-box Bret for appointment
Sept. 23	IOB, Bldg. 32544, Conference Room A
Sept. 24	Public Works, Bldg. 981, Conference Room

Sept. 29	Michelson Lab, "Little D" Conference Room (appointments from 6:45 to 8:30 a.m.; walk-ins from 8:30 to 9 a.m.)
Sept. 30	Michelson Lab, "Little D" Conference Room (appointments from 6:45 to 8:30 a.m.; walk-ins from 8:30 to 9 a.m.)
Oct. 1	Michelson Lab, "Little D" Conference Room (appointments from 6:45 to 8:30 a.m.; walk-ins from 8:30 to 9 a.m.)
Oct. 2	Training Center (appointments from 6:45 to 8:30 a.m.; walk-ins from 8:30 to 9 a.m.)

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At Contel, we're committed to excellence in the Ridgecrest community. And that commitment extends to the people of Ridgecrest through our employees, who proudly volunteer their time and talent to make a difference in the community.

Roy Doughty has been with Contel for 26 years. The service he provides to Contel customers is invaluable. But after office hours is when Roy really goes to work, volunteering his time to the young and old.

As the Elks Lodge Youth Activities Coordinator, Roy obtained an official proclamation, declaring the first week of May "Youth Week." Roy also established a program to select "Students of the Year," who will be honored at an Elks Lodge dinner attended by local dignitaries.

As 2nd Vice President of the Independent Telephone Pioneer Association, Roy coordinated the local fundraising effort for the Alzheimer Foundation. And when a building was donated by the City of Ridgecrest to establish an Adult Day Care facility for Alzheimer and brain impaired seniors, Roy helped organize the work parties that did the renovation for free.

Roy Doughty's remarkable dedication to the people of Ridgecrest reflects the professional goal shared by all Contel employees... excellence without equal.

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Roy Doughty, chosen by his co-workers as the Volunteer of the Quarter, represents Contel's dedication to the Ridgecrest community.







# MWR offers Friday concert with Drifters and Box Tops

Tomorrow (Friday) night, the China Lake / Ridgecrest community is invited to attend "a blast from the past." The Drifters and The Boxtops will give a live performance at the China Lake Community Pool bandstand area from 8 p.m. to 1 a.m. Tickets are \$10 at the door or they may be purchased at the Seafarer Club, Barefoot Bar, Craftech and the Morale, Welfare & Recreation Office at Bennington Plaza.

Tom Blackmore, MWR director, says the show promises "nonstop entertainment from top notch performers." Food and drink will be available at reasonable prices during the evening.

The Drifters have performed such hits as "On Broadway," "Up on the Roof," "Save the Last Dance," "There Goes My Baby," "This Magic Moment," and "Under the Boardwalk." With the instant success of their latest number, "Stand by Me," the group once again has its sight on being Number 1 in the music world.

The Box Tops hits include "The Letter," "Neon Rainbow," and "Soul Deep."

# Party Bingo offered every Tuesday

Party Bingo will be held at the Seafarer Club every Tuesday at 6:30 p.m. Come down and enjoy the fast-paced action, invites the Morale, Welfare & Recreation staff. Cost is \$10 per Bingo pack, or \$1 per game. A no-host bar and snacks will be available. Cash prizes will be determined by the number of players.

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\* **Student versions:** Student versions of Mathematica (for college students only) for DOS, Windows & Mac. All are \$169. In stock.



Photo by Barry McDonald

**GRAND RE-OPENING**—Regular customers and employees join in ribbon cutting marking the re-opening of the Seafarer Club dining room, which now has a "cafe" theme and a deli line that offers sandwiches and salad entrees. Remodeling included adding draperies and hanging plants to create a more relaxing atmosphere. A new feature at the Seafarer allows dining room patrons to order from the Freddie's Place menu and vice versa. From left, Stella Pelayo, Seafarer Operations Clerk Annette Carrington, Manager MSC Fred Gilchrist, Douglas Rogers, NAVS Ordnance Division Head AOCM Bill

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# DESERT

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# New control panel allows China Lakers to work with more advanced explosives

By Peggy Shoaf  
Staff Writer

Ever make a cake from scratch, adding a pinch of this and a pinch of that? If so, you have some idea of what is involved when mixing propellants. The one big difference is that you can have catastrophic results if something goes wrong with a propellant mix, not just a bad piece of cake.

Employees at the Naval Air Warfare Center Weapons Division's Ordnance Systems Department at China Lake recently took actions to ensure such a catastrophe never happens. They took the lead in developing and installing a new control panel for the department's 150-gallon Baker-Perkins explosive mixer. The latest in control technology is now functioning for this important mixer.

Jim Embree of the Propulsion Systems Division Project Engineering Section headed the team responsible for developing and installing the new panel.

When the go ahead order came, the project went out to bid, with Comarco Industries winning the award.

With the contract in place, Embree and his team, which included Jack Thompson, from the Propellant Technology Branch, and George Grace, Larry Martin Tom Kelly and Bob Fuller, from the department's electrical and machine shops, worked with Bob Gould, a Comarco engineer, to make sure the panel design was what they wanted.

From start to finish, the project took approximately six months, which is a fairly fast turnaround time, Embree said.

"Today's propellants are more technical than the ones 30 years ago," Embree said. "We needed to upgrade it (the control panel) to get closer control tolerances and temperature readings."

The new control panel will give the department the ability to do the more technical mixes and will give technicians and engineers a better handle on the data and monitoring portions of the propellants

they mix. It will also give them more data on the process than they had before.

Another advantage of the new controller is its electronic controls, rather than the old pneumatic controls, Embree noted. "While pneumatic controls are good in hazardous areas like here, they aren't as responsive or accurate as electronic controls," Embree explained.

The new variable speed drive is also a plus. "We can now go from 180 rpm to 1700 on the motor, a big change from the previous two-speed drive," Embree said.

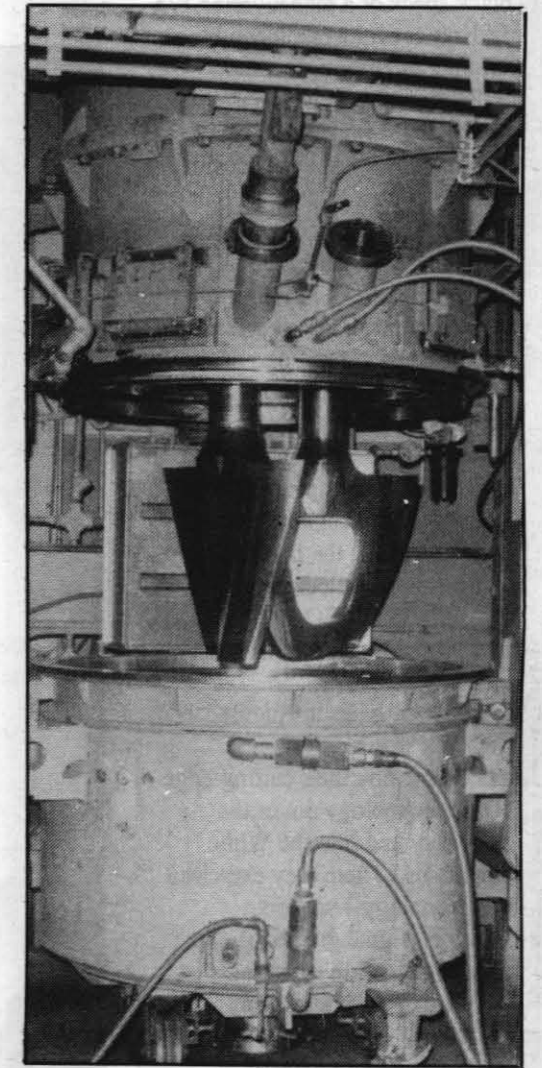
Howard Gerrish, from the Ordnance Processing Branch, is happy the new panel is in place. "The whole system is more streamlined now," he said. "It is also more organized and compact (than the old one)."

To mix propellants, the liquid ingredients are added to a specially designed pot, Gerrish said. Some solids may also be added, but not too much. That mixture is then mixed, while under vacuum, which is a special process that pulls air and gases out of the mixture. More solid ingredients are then added. Once again, the mixture is mixed while pulling vacuum. This process is then repeated until all the solids are in. The mixture is then mixed again for 30 to 60 minutes under vacuum, lowering the temperature of the pot from 150 to 160 degrees fahrenheit to less than 130 degrees

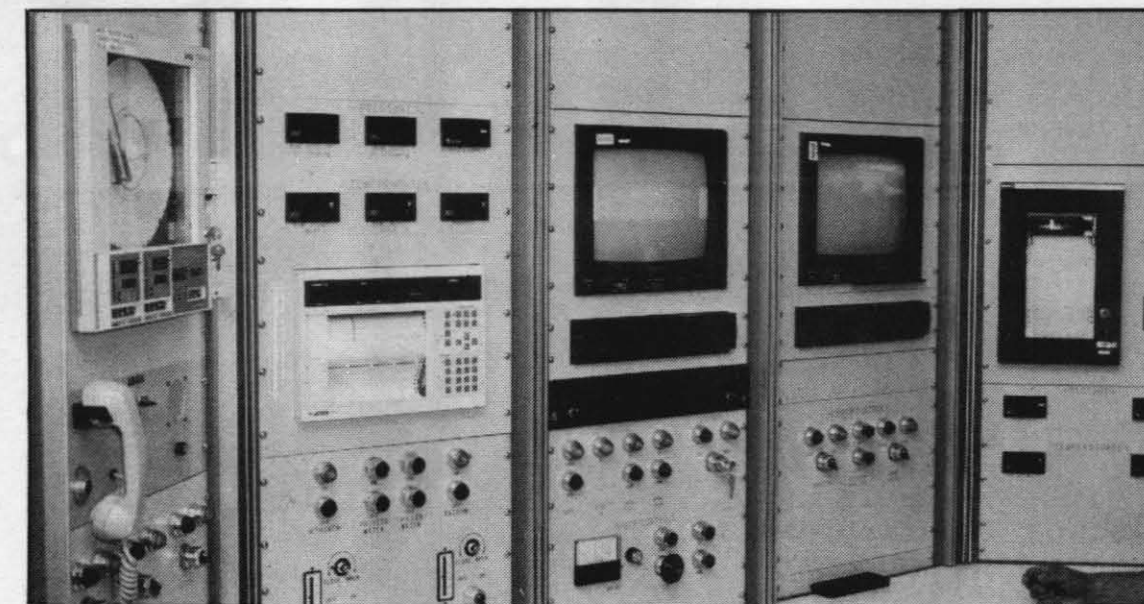
fahrenheit. A curative is then added and the mixture is mixed for another 25 minutes or so under vacuum, Gerrish said.

The pot is then transported to the casting pit, where a plug in the bottom of the pot is pulled and the mixture is forced out through some piping into the rocket motor case before going into the oven.

Just like mixing a cake!



**MIXER**—China Lake's 150-gallon Baker-Perkins explosive mixer is similar to mixers found in large bakeries throughout the United States.



**CONTROL** technology for the 150-gallon Baker-Perkins explosive mixer at the Naval Air Warfare Center Weapons Division's Ordnance Systems Department at China Lake was improved recently with the installation of a new control panel designed and developed under the direction of Jim Embree of the Propulsion Systems Division, Project Engineering Section.

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# Long Jump '92: Two-mile high Barcroft Lab offers ideal test environment

By Cliff Lawson  
Technical Information Department

Two engineers are fussing with an infrared sensor installed on a Kineto tracking mount. At the front of the sensor, a saucer-sized mirror behind a transparent dome reflects the glaring mid-day sun. At the other end of the sensor is a maze of electrical wires, cooling lines and coaxial cables secured to the Kineto mount by duct tape. As a loudspeaker announces that the target aircraft is beginning its inbound run, the engineers make frantic last-minute adjustments to the sensor. Then they turn and squint into the south-east, trying to spot the black speck of a maneuvering F/A-18 Hornet against the deep-blue summer afternoon sky.

This is not an uncommon sight on the desert ranges at China Lake, where the Navy has been testing sensor systems since the 1940s. This particular scene was not at China Lake, however, but 40 miles northwest on a 12,500-foot-high mountain top. The site was Barcroft Laboratory, part of the White Mountain Research Station, a research and teaching facility owned and operated by the University of California at Los Angeles. The event was part of Long Jump '92, the fifth in a series of high-altitude electro-optical/infrared (EO/IR) sensor tests hosted by Naval Air Warfare Center China Lake.

For two weeks in August 1992, DoD and industry technical specialists took their cutting-edge EO/IR technology out of the laboratory and into the White Mountains. There they exercised the technology—seekers, detectors, signal processors, algorithms—in live tests against Navy, Air Force, and Army aircraft.

Why pack hundreds of thousands of dollars worth of electronic and optical equipment into a truck, drag it up twisting dirt roads high into a remote mountain range, and set it up in the open at a spot so meteorologically bizarre that fierce winds spring up suddenly out of nowhere and hail is common even in midsummer? Particularly why do so when China Lake, with its 1,000,000 acres of highly instrumented ranges, is only a few miles away?

The answer is air or, more accurately, the lack of air. Over two miles high, Barcroft Laboratory is above most of the dust, smoke and water vapor that permeates the air at lower altitudes. The thin air, nearly free of particulate matter, combined with a clear horizontal line of sight that extends for more than 100 miles, makes Barcroft ideal for testing these extremely sensitive EO/IR systems.

EO/IR sensor systems are designed to detect heat or other radiation from a distant target, lock on to that signal and track it. The sensors and their complex signal-processing electronics are used in "smart" bombs, in seekers that guide missiles to their targets and in night-vision systems that allow aircrews and ground troops to

see far beyond the limits of their natural vision. EO/IR technology is also used by the Immigration and Naturalization Service, to help apprehend illegal immigrants; by the Coast Guard, to detect small boats and people adrift at sea; and by the railroad industry, to spot objects on the tracks at night. Even auto makers are looking into the use of such sensors on automobiles, to allow safe passage through areas of blowing dust or snow, and for school buses, to guide them safely through morning fog.

Still, it is for combat that these systems are primarily designed, and in combat, the farther away you can spot the enemy, the more likely you are to defeat him. That is why DoD is especially interested in methods for pushing

complex background patterns (clutter) than against clear sky.

The targets, in this case, were the F-14 Tomcat, F/A-18 Hornet, A-6 Intruder, F-15 Eagle, F-16 Fighting Falcon, F-111 Bomber, F-4 Phantom, E-2C Hawkeye, C-130 Hercules, C-141 Starlifter, C-5 Galaxy, B-1B Bomber, B-52 Stratofortress, A-10 Thunderbolt, AH-1W Supercobra, UH-60 Blackhawk, and AH-64 Apache. These military aircraft were provided by bases in California, Nevada, Washington, Texas, and Arkansas, and coordinated through China Lake.

Target flights were scheduled for various hours of the day and night to present the aircraft under differing light conditions. Each target aircraft began its run on the target

from Telescope Peak, an 11,048-foot peak on the western boundary of Death Valley slightly over 100 miles east of Barcroft. Flying a prearranged course that included various aspects, altitudes, and attitudes, the target approached, overflew the site and then followed a similar pattern outbound.

As the target flew its pattern, Long Jump participants trained their sensors on the aircraft. Range and direction assistance came from the Tactical Air Navigation System (TACAN), from manned tracking pedestals on which the sensors were mounted, and from an air traffic coordinator who was in continuous communication with the pilots.

The data generated by the sensors at Barcroft throughout each of the 22 missions were recorded on video and

magnetic tape for later analysis.

Attending Long Jump '92 from the private sector were teams from Hughes Aircraft Company, Loral Aeronutronic, McDonnell-Douglas Aircraft Co., Raytheon Missile Systems Laboratory, Rockwell

International, and Texas Instruments. The government fielded three teams: one from the U.S. Army Night Vision Laboratory and two from NAWCWPNS China Lake. Jeff Spindler and Shari Jenkins, from the Signature Measurement and Evaluation Branch of the Air Intercept Weapons Department, headed the China Lake teams.

John Crecelius and Rich Clodt worked the China Lake Control Van at the site, vectoring the aircraft targets on their test runs and giving minute-by-minute information to the test participants. Gerry Powell of the China Lake Target Signatures Program in the Intercept Weapons Department sponsored and planned the exercise, and Valerie Rogers of the Air-to-Surface Guidance Branch was responsible for the daily planning, execution and coordination of the Long Jump '92 exercise.

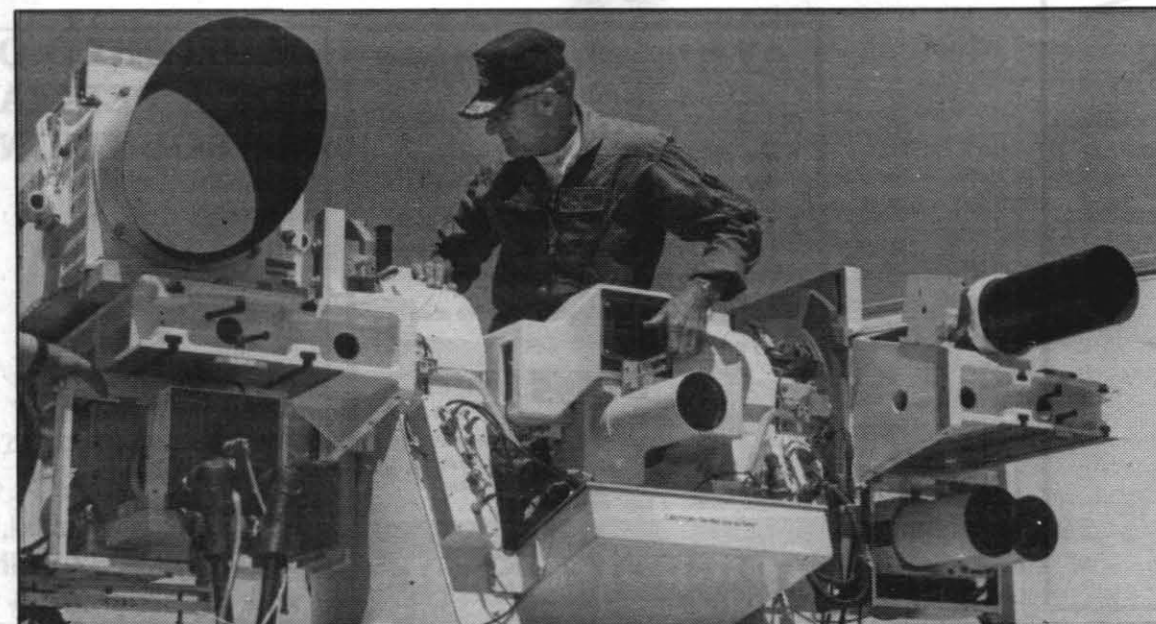
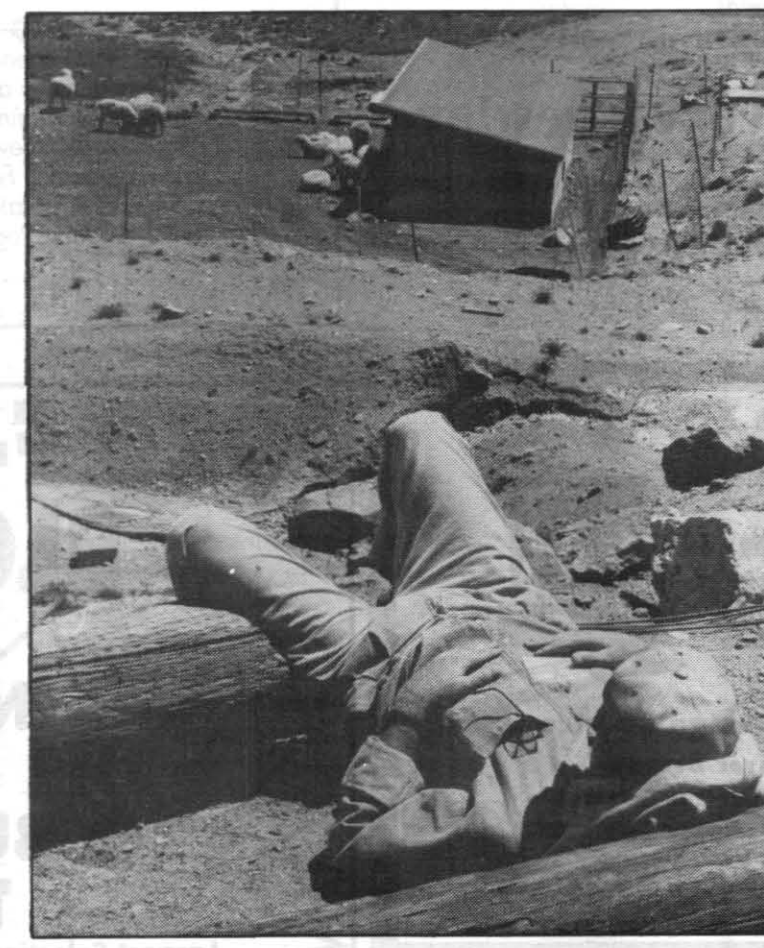
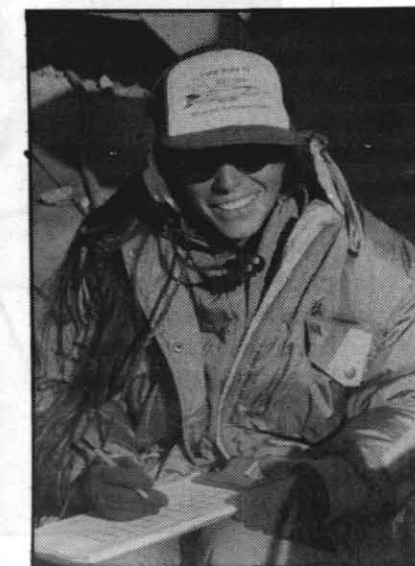
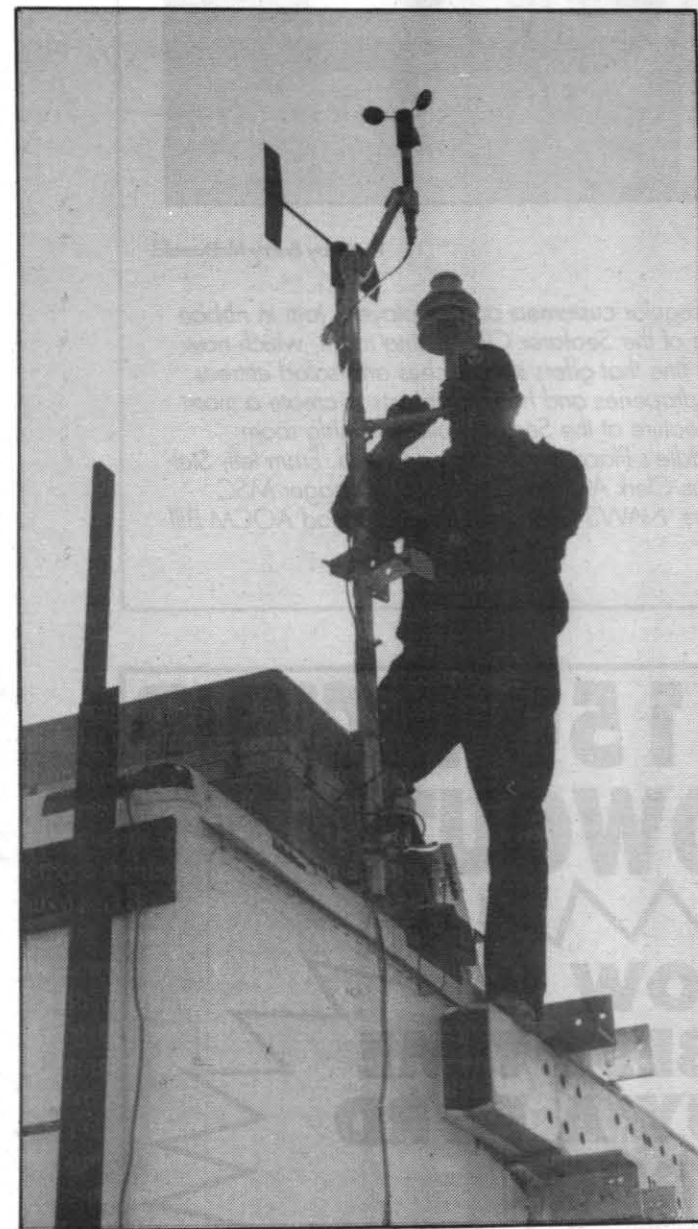
More than 100 people attended Long Jump '92. Most stayed in UC facilities at Crooked Creek (elevation 10,150 feet). As in past years, the costs of Long Jump '92 were borne by the participants. Each commercial firm paid the Government \$7,000 per sensor, with a two-sensor minimum. Additional funding came from the Air Weaponry Technology Block Office at China Lake and from DoD programs within all three services.

Viewed at its most competitive, Long Jump '92 was a side-by-side performance assessment of the best anti-aircraft sensor technology that each participant could field. At its most cooperative, it was an opportunity for participants to share their knowledge in an informal working environment and to contribute to an increasingly critical field of air-combat technology.

The Long Jump series has, since its start in 1985, shown benefits to all the participants. Commercial developers see their systems in operation against realistic threats and use the data for system evaluation and improvement. The government sponsorship of the program strengthens the technology base in an area that is vital to successful air combat. (Under the terms of the Long Jump agreements, copies of all contractor data are given to the government, along with sensor-performance log sheets.) The taxpayer gets a break too: with the data from the participating contractors as well as from its own in-house research-and-development teams, the government is using Long Jump to identify the most reliable and cost-effective EO/IR technologies and approaches for incorporation into 21st century air-combat systems.

Standing by the Kineto mount at Barcroft, the two engineers cover their ears as the F/A-18 roars low over the site. The test was a success; the sensor acquired the target well beyond the range they'd anticipated, and excellent data was recorded throughout the flight. But moments later they are back at work on the sensor, adjusting this, fine tuning that. Another test begins in two hours, and maybe there's time to get that new filter installed...

Photos by Terry Pascarella



Clockwise from left:  
**RADM. NEWMAN** discussed testing with Kineto mount operator.  
**TECHNICIANS** controlled tracking and monitored data retrieval.  
**WEATHER** was constantly monitored to relate performance with specific conditions.  
**TEMPERATURES** were in the 20s and 30s in the morning, as well-bundled Katia Estabridis demonstrates.  
**COUNTING** sheep will get you every time—some participants worked from before sunrise until after sunset, napping when they could.  
**YOUR** basic group shot.





# PERSONNEL NEWS

## PROMOTIONAL OPPORTUNITIES

Applications for positions listed below are being accepted from Department of Navy Employees currently sited at NAWC, China Lake and from eligible employees of attached activities who are permanently assigned to the China Lake site. This group includes employees with career or career conditional appointments, employees with permanent Veterans Readjustment Act (VRA) appointments; temporary employees with reinstatement eligibility; and handicapped employees with Sch.(A) continuing appointments. Also included are spouses, with competitive status, of civilian sponsors hired by a DOD activity within China Lake's commuting area. Applications from other groups will be accepted when specified in advertisements listed herein. Vacancies are subject to restrictions imposed by the DOD Priority Placement Program. Applicants must meet all legal and regulatory requirements, including minimum qualifications, by the closing date of the advertisement. Evaluation of applicants qualifications will involve using at least two assessment measures. Assessment measures are work experience, annual performance assessment rating and narrative, education, training, and awards.

Eligible spouses, of military sponsors, with competitive employment status or eligibility under E.O. 12362, must register in the DOD Priority Placement Program to be eligible for spousal preference. Those enrolled in this program will automatically receive consideration for employment on vacancies for which they qualified. For initial employment information, career counseling and enrollment, call 939-3317 for an appointment.

**HOW TO APPLY:** Submit the following: a current application, SF-171 or other Human Resources Department pre-approved form, a copy of your most recent annual performance assessment narrative (note: a copy of your performance plan should be attached if the annual performance narrative does not clearly state the task/duties performed); and a completed Background Survey Questionnaire. A supplemental narrative which relates your qualifications to each knowledge, skill, or ability (KSAs) as cited in the advertisement is highly recommended and may be required if stated in the vacancy announcement. Write the title, series, level (grade), and announcement number on all application materials. Not submitting the annual performance narrative may adversely affect your evaluation score. Prior to submitting your application, complete Cover Sheet Form 12335/2, available at the reception desk. Make sure your address, phone number, etc., are current, correct and that all forms are complete and accurate. If any of this information is missing, your qualifications may not be fully and completely rated. Additional information cannot be submitted after the closing date of the announcement. A current date and signature on the last page completes the application. Civilian Spousal Program Eligibles with competitive status must submit a copy of their sponsor's PCS orders with each application in order to be considered for Merit Promotion vacancies which do not state that status eligibles may apply.

Application materials are accepted, and blank forms are available, at the Reception Desk, Room 100, Human Resources Department, 505 Blandly. Announcements close at 4:30 p.m. on Thursday, one week after the opening date of the announcement, unless otherwise specified. Applications received after 4:30 p.m. on the closing date will not be considered. Copies of Applications may be submitted since applications are kept in an announcement file and cannot be returned or filed in personnel folders. The Naval Air Warfare Center, Weapons Division is an Equal Opportunity Employer; selections are made without discrimination for any non-merit reason.

## NOTICE REGARDING DRUG TESTING DESIGNATED POSITIONS

Any applicant tentatively selected for one of these positions will be required to submit to urinalysis to detect illegal use of drugs prior to a final selection. Final selection is contingent upon a negative drug test result, and thereafter the selectee will be subject to drug testing as the incumbent of a Testing Designated Position (TDP). Further, all Department of the Navy employees may be subject to drug testing under certain circumstances such as reasonable suspicion and after an accident. All individuals will have the opportunity to submit medical documentation that may support the legitimate use of a specific drug to a Medical Review Officer. An applicant's test results will be provided to the selecting official and servicing Civilian Personnel Office before a final selection is made. A verified positive drug test of a current Department of the Navy employee will also be provided to the employing activity/command. (NAVWPNCENINST 12792.2, 14 Dec 90).

## MERIT PROMOTION

**No. 15-004, Materials Handler, WG-6907-5/7, Code 151 (C8501)** - This position is located in the Weapons Department, Magazine Operations Division, China Lake, Ca. The incumbent will perform duties involving the receiving, shipping, storing, issuing and transporting of ammunition/explosives and components. The major duties and responsibilities of the incumbent include operating equipment such as electric and diesel forklifts and trucks up to and including 10 tons; inspecting cargo and shipping documents to insure material is properly marked, stenciled, labeled, tagged, and sealed; assisting in loading and unloading ammunition and explosives transported in or out of the magazine area; assisting in the upkeep and cleanliness of all magazines as well as periodically inventory and rearrange the magazines. Applicants should possess a knowledge of ordnance, be able to identify safety hazards, and be able to operate trucks and special vehicles. **Job-Related Criteria:** Ability to do the work of the position without more than normal supervision; skill in use of material handling equipment and techniques; ability to interpret instructions, documents, etc.; knowledge of ordnance and explosives; dexterity and safety. Full performance level is WG-7. A Supplemental Qualifications Statement is required when applying for this position and may be obtained in the Human Resources Department. Permanent change of duty station (PCS) is not authorized. This ad opens on 18 September 1992 and closes on 2 October 1992.

**No. 32-008, Physical Scientist, DP-1301-2, Code 3211** - This position is located in the Propellant Technology Branch, Energetic Materials Division, Ordnance Systems Department. The incumbent performs the chemical formulation of propellants, explosives, and pyrotechnics. In addition to the

preparation and mixing of experimental compositions, the responsibilities include supporting scale up efforts, locating and purchasing of ingredients, dealing with vendors and outside sources for specialized materials, coordinating work goals and schedules, budgeting and tracking expenditures. In the process of the production of experimental compositions, the responsibilities include planning and coordinating relevant testing and evaluating test results. Further responsibilities include writing and reviewing Standard Operating Procedures (SOP's) for ordnance operations, submitting new material requests (Code 32 New Materials Committee), preparing documentation to acquire shipping clearances for experimental compositions and reporting periodic progress both orally and in writing. The incumbent must be able to write and present formal papers on the assigned work, originate, develop, plan and defend proposals for new work and represent the Center as a technical expert in propellant formulation and related efforts. **Job-Related Criteria:** Knowledge of chemical properties of ingredients and their mixtures; knowledge of propellant and explosives cure chemistry; knowledge of safe procedures for handling propellants and explosives; ability to safely process energetic materials to the 1-pint level; ability to communicate orally; ability to communicate in writing; ability to deal effectively with all levels of personnel. Full performance level is DP-3. PCS is not authorized. This ad opens on 18 September 1992 and closes 2 October 1992.

**No. 34-028, Laborer, WG-3502-3, Code 3442** - This position is located in the Mich Lab, Guard Mail Room, Mail, Files and Records Branch, Technical Information Department. The incumbent is responsible for sorting and delivery of U.S. and Guard Mail throughout the Station. Incumbent must possess a valid California Driver's License. **Job-Related Criteria:** Reliability and dependability; ability to follow oral and written

directions; ability to handle weights and loads; and safety and dexterity. Applicant must submit a supplemental form with the SF-171. The supplemental form can be obtained in Room 100 in the Personnel Building.

**No. 39-019, Electronics Engineer, DP-855-2/3, Code 3943** - This position is located in the Advanced Signal Processing Branch, Intercept Weapons Department. The technology development and evaluation in support of electro-optical/infrared (EO/IR) air-to-air missile systems as applied to reticle, pseudo-imaging, and imaging systems utilizing various sensor configurations. The incumbent will be part of a team responsible for the design, test, and evaluation of electronic circuits of EO/IR-guidance and target-acquisition subsystems for use in antiair missiles. **Job-Related Criteria:** Knowledge of analog and digital circuit design, adaptive filtering, and signal integration; ability to analyze, design, fabricate, test, and evaluate EO/IR-guidance and target-acquisition seeker subsystems for use in antiair missiles; ability to communicate orally and in writing; ability to interface effectively with on-Station organizations. Promotion potential to DP-3, but not guaranteed. Relocation expenses are not authorized. This ad closes on 25 September 1992.

## SECRETARIAL COLUMN

**No. 31-038, Secretary (Typing), DG-318-1/2, Code 3183 (C2183)** - If you want to accept the challenge of working with an energetic group of engineers and interfacing with 4 other terrific secretaries, this job is for you. The incumbent will provide secretarial support to said engineers in the Systems Engineering Branch of the Survivability and Lethality Division, Aircraft Weapons Integration Department. The

incumbent will also process travel orders and vouchers, make reservations for travel, provide general support to the Division, and fill in for other secretaries when they are absent. Not being intimidated by computers (especially Macs) is desirable. Must be able to obtain and maintain a SECRET clearance. The full performance level of this position is DG-2.

**No. 34-027, Secretary (Typing), DG-318-2/3, Code 343** - This position is located in the Library Division staff office. The incumbent provides secretarial support for the Division Head, Administrative Officer, and Branch Heads. Knowledge and working skill using Excel, Filemaker, MacWrite and Word is desirable. Ability to maintain a customer service attitude and work well with all members of the staff is essential. The full performance level of this position is DG-3.

**No. 38-006, Secretary (Typing), DG-318-1/2, Code 3894 - Full-time/Part-time.** This position is located in the Research Department, Engineering Sciences Division, Warhead Dynamics Branch. The incumbent provides secretarial and administrative support to the Branch Head and staff. Additionally, the incumbent will assist elsewhere in the Department when needed and workload permits and may be called upon to assist editorial assistants during times of heavy workload. Knowledge and working skills on the Macintosh SE/SE-30/II is desirable. The full performance level of this position is DG-2.

## 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 four 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.



## Naval Air Warfare Center Weapons Division Naval Air Weapons Station, China Lake Announcements

Submit items to: Code 3415(C9425); FAX 939-0945 or E-Mail to TID:ANC



## GERMAN LANGUAGE CLASSES OFFERED

Starting **14 September** German Language Classes will be offered through the Sierra Sands Unified School District Adult School on Monday from 1800-2000. This class is a continuation of Beginning German offered last year, and it can be structured to a more advanced format if the enrollment requires it. The class will be held in Room D-23 on the Burroughs High School Campus. For more information call Marcia Thigpen at 375-4476 (Office) or 375-8924 (home). (Code 3901A)

NS sites. A new target award date is estimated to be December 92. SGI users are requested to keep this in mind when they procure their own hardware maintenance agreements for FY93. Please contact Ver Espiritu at 939-3397 if you have any questions, or if you wish to participate in the above contract. (Code 2741/C6331)

## NEW HOURS FOR TECHNICAL LIBRARY

New hours for the technical library are:

Technical Library  
0700 - 1700  
Closed Fridays  
Research Service Center (located in Mich Lab, Room 125):  
0700 - 1630  
Closed 11:30 - 12:30  
Closed Fridays  
Point Mugu Branch  
0800 - 1600  
(Code 343)

## NAWC CONFERENCE CENTER CLOSED

Beginning **10 October** the NAWC Conference Center (formerly CPO) will be closed for approximately 30 days while a new roof is being installed. Plans currently call for the facility to re-open on 12 November if there are no delays in the project. Employees wishing to reserve rooms at the Conference Center when the project is complete should call 939-3634 and leave a message on voice mail. Your call will be returned by someone from the Protocol Office as soon as possible. (Code 2101/C0806)

## DISSPLA ALTERNATIVE - DEMO DATE SET

The original developers of DISSPLA, who also developed SuperSet, have recently ported DISSPLA compatible code with extensions to PC 386/486 platforms. Their 64 bit processor includes add-on i860 boards, extended Fortran compiler, device-independent displays, and 64 bit virtual memory.

They may offer a viable alternative to some of the current processing on larger machines, with possible increased performance.

If you are interested in attending a demonstration of this hardware and software, it will be held on **Tuesday, 29 September**, at 1000 in Mich Lab, Room C208A, the "Vis Lab". If you plan to attend, please contact Tom Funk, Code 2722, 939-3564. (Code 2722)

## SILICON GRAPHICS, INC. (SGI) HARDWARE MAINTENANCE CONTRACT

The solicitation for this centralized contract is being amended to reflect changes in the scope and requirements brought about by the recent consolidation of NAWCWPNS sites. The amended solicitation will include all NAWCWP-

NS sites. A new target award date is estimated to be December 92. SGI users are requested to keep this in mind when they procure their own hardware maintenance agreements for FY93. Please contact Ver Espiritu at 939-3397 if you have any questions, or if you wish to participate in the above contract. (Code 2741/C6331)

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Closed 11:30 - 12:30  
Closed Fridays  
Point Mugu Branch  
0800 - 1600  
(Code 343)

## WACOM LUNCHEON MEETING

The October WACOM Luncheon meeting will be held at the Seafarer Club on **Tuesday, 13 October** with a social period at 1100 and lunch at 1130. The meeting will feature the song and dance of Jim and Martha Hessions and Chester Whitmore. The Hessions trace our country's popular music heritage from 1900 to the 1940's. Chester Whitmore is a tap and historical jazz dancer. Members may make reservations by calling Eleanor Rockdale at 446-6925. (Code 19)

## TECHNICAL MEMORANDUM BIBLIOGRAPHY AVAILABLE

The Technical Information Department has just released a bibliography of Technical Memorandums (TMs) published during calendar years 1990 and 1991 as NWC TMs. One copy has been distributed to each R&D and T&E department at all NAWCWPNS sites. Extra copies are available as long as supplies last. Call the Distribution Office, 939-3513. (Code 34104)

## COMARCO FOLLOW-ON DELIVERY ORDER

This is a friendly reminder to process follow-on delivery order packages to the contract coordination office. We realize that delays are caused by the current predicament of having to cover all government personnel, the requirement for review by Code 03, and the uncertainty

of FY93 funding. However, it is a requirement for unfunded delivery orders that performance must be continuous. Therefore, if a follow-on delivery order is not in place as of **1 October 1992**, any delivery order requests must be considered as new requirements and will require funding before work is authorized under the delivery order. This is a reminder of the importance of not waiting too long to process a delivery order package. For further information, contact our office at 446-3585. (Code 36017)

## WEAPONS DEPARTMENT STANDDOWN

To allow the Weapons Department to transition into a new administration facility, a standdown has been scheduled for **1-2 October**. During this time, telephone service to the Weapons Department will be intermittent because of the cutover of telephone service. Anyone having ordnance requirements during the scheduled standdown is encouraged to coordinate the requirements with the Head, Ordnance Administration Division, at 939-6461. For additional information regarding the standdown, contact Jack Kavanagh at 939-6271. (Code 152/C852)

## CAREER COUNSELING AVAILABLE

Starting **16 October**, a new service will be available to all China Lake employees. Each non-payday Friday a Cerro Coso counselor will be available in the new Career and Life Planning trailer, located behind the Training Center. The counselor will be able to help with career decision making, educational counseling, and career transitions. Individuals will have access to DISCOVER and Eureka, two computerized career and educational search programs. To schedule an appointment, please contact Marie Duff at 939-0873. Drop-ins also welcome. (Code 224)

## INFORMATION RESOURCE SYSTEMS TASK TEAM MEETINGS

The NAWCWPNS Information Resource Systems (on-line document storage and retrieval) task team will be meeting on **Thursday, 17 September**, from 1315 to 1400 in the Video Teleconference Center (VTC).

An additional VTC meeting is scheduled for **24 September** from 1230 to 1330. On-site meetings are also being planned and will be discussed at the 17 September meeting.

The task team is investigating the possibility of establishing a computer-based, on-line document storage and retrieval system for all sites of NAWCWPNS. The team is currently working on a draft NAWCWPNS policy concerning these systems.

All interested personnel (NAWC and NAWC) are invited to attend.

For additional information, please contact Bob Bloudek, Head, Information Resources Office (Code C6404 at 939-0568. (Code C6404)

## PATRON ON-LINE SYSTEM REGISTRATION UPDATE

Because the base consolidation resulted in code number changes and new phone numbers, the Technical Library, Code 343, is updating the registration information on its patrons of the on-line system. We will be sending out registration cards for patrons to update with their correct information. If you do not receive your card by 1 October 1992, or if you wish to register for the first time, please contact Kit Driscoll at 939-0742. (Code 343)

## RETIREMENTS

### GARY DAVIS

A retirement party for Gary Davis, who retired on 3 July, will be held at the Officer's Club in the Barefoot Bar area on **Friday, 25 September**. There will be no-host cocktails from 1630 to 1730. An "All American BBQ" will be served at a cost of \$7.50. For reservations, gift donations, or presentations, please call Caroline at 939-055- or Dawn at 939-3087. Reservations are needed by 17 September.

### SHIRLEY PLADSON

A retirement party for Shirley Pladson will be held at the Seafarer Club on **Wednesday, 23 September**, 1800-2200. Dinner will be served at 1830. Presentations will begin at 2000. Menu choices include chicken-fried steak or baked chicken at a cost of \$8.50. For reservations/tickets or to make a presentation or "roast," contact Sue Gillen at 939-4227 or Kim Zurn at 939-1178. Reservations are needed by 18 September. (Code 365)



## LEAVE DONORS NEEDED

The employees listed below have been approved as leave recipients under the Leave Transfer Program. These employees have exhausted annual and sick leave because of personal or medical emergencies and anticipate being in a leave without pay status for at least 80 hours. Employees who wish to help a leave recipient may donate annual leave to the employee by submitting a completed NAVWPNCEN Form 12630/16 (Request to Donate Annual Leave to Leave Recipient). This form is available at Shop Store (Tel-mart). A copy of your leave and earning statement is NOT required. Send your form to Code 221. For additional information please call Cindy Smith at 939-2018.

**Diane Richardson, Program Analyst, Code 3208.**  
Diane Richardson is undergoing foot surgery and will be home recovering. She is indebted for leave.

**Cheryl Braun Wheeler, Computer Specialist, Code 3934.**

Cheryl Braun Wheeler is in need of leave due to hospitalization for physical exhaustion and to care for her husband, a diabetic who has had kidney failure and requires a transplant.

**Teresa Clower, Computer Specialist, Code 2611.**  
Teresa Clower is indebted for leave to care for her husband who is undergoing numerous nerve blocks and having surgery to implant a spinal cord stimulator.

**Jesse Ray Lewis, Jr., Police Officer, Code 2413.**  
Jesse Ray Lewis, Jr., has been off work for several months as a result of back surgery and its complications.

**Gloria Dominguez, Program Analyst, Code 28503.**

Gloria Dominguez was hospitalized and has exhausted all of her leave.

**Jan Slater, Security Assistant, Code 2433.**  
Jan Slater suffers from pseudotumor cerebri. She had brain Shunt surgery to reduce brain swelling and will be home recovering.

**Ann Roseman, Administrative Officer, Code 3104.**  
Ann Roseman is undergoing surgery and is in need of leave.

**Beth Schuchman, Payroll Clerk, Code 2853**  
Beth Schuchman is indebted for leave to care for her infant son. He is undergoing continuous testing and intermittent hospitalization. She is a single parent.

**Rosemary Langley, Secretary, Code C01**  
Rosemary Langley is recovering from surgery and is currently undergoing radiation treatment and chemotherapy.

**Sharon Morgulec, Engineering Data Management Specialist, Code 36521**  
Sharon Morgulec had surgery and has exhausted her leave.

**Jane Casey, Technical Writer, Code 3411**  
Jane Casey is in need of leave due to a heart attack and open-heart surgery.

**Deborah A. Birch, Secretary, Code 642A**  
Deborah A. Birch received treatment for breast cancer and is indebted for leave.

**Alvina S. Quintanilla, Contract Specialist, Code 254**  
Alvina S. Quintanilla is undergoing daily radiation therapy for inoperable cancer of the nasopharynx.

**Trisha Chan, Program Manager, Code 3402**  
Trisha Chan needs leave to care for her husband who is terminally ill with cancer.

**Judy A. Eldredge, Code 2862**  
Judy A. Eldredge is in need of leave to care for her 6-year-old son who is undergoing continuous treatment for Acute Lymphatic Leukemia.

## RELIABILITY/MAINTAINABILITY (8 hrs.)

29 October; Thursday, 0800-1600; Training Center. By: Charles Fleener, Code 3607.

## REQUIRED FOR ENROLLEES IN THE TMC OR SEC PROGRAMS.

This course is designed to acquaint managers with the elements of reliability and maintainability. The latest activities by DOD, CMN, and NAWS will be discussed. Topics include reliability and maintainability requirements, reliability and maintainability management, design criteria, design analysis, parts and materials programs, integrated test programs, failure recurrence control, and documentation review. Help in tailoring these elements to a particular contract because of program phase cost and schedule will be provided.

Deadline: 15 October.

## LIFESTYLE CONTROL OF CHOLESTEROL (8 hrs.)

22 October; Thursday, 0800-1600; Training Center. By: Dr. Wes Youngberg, Consultant.

Increasing media attention has been placed on cholesterol in the last several years. While the bulk of the research is in general agreement there are frequent scientific reports that cause confusion and lead to speculation concerning the therapeutic and practical significance of certain lifestyle changes and their resulting impact on various risk factors and specific endpoints such as coronary artery disease. This seminar addresses past, present, and ongoing research, especially regarding the issue of reversibility of heart disease once it is established. Research design, methodology and subject recruitment is discussed concerning the more "controversial" studies and focus is placed on the validity of conclusions relative to established physiologic mechanisms. My most interesting patient cases will be discussed.

Unless otherwise noted, enroll in the following classes by submitting NAVWPNCEN 12410/73 (Rev. 12-88), Request for On-Center Training, via department channels to Code 224. (Code 224)

**ACQUISITION OF TECHNICAL DATA (8 hrs.)**  
6 October; Tuesday, 0730-1600; Training Center. By: Ruth Barr, Code 3652 (C2552).

## REQUIRED FOR ENROLLEES IN THE TMC OR SEC PROGRAMS.

The course emphasis is on what the program manager or technical manager, not the practitioner, should know about the development of various types of technical data required to support the phases of the acquisition life cycle of a hardware or software product. Topics include configuration/data management, drawings, specifications, computer-aided engineering documentation, software documentation, provisioning, and data repository. This course is an overview intended to show what technical data is, why it is important, and how it fits into the acquisition program.

Deadline: 22 September.

## PROGRAM MANAGEMENT, PART I (20 hrs.)

20-22 October; Tuesday-Thursday, 0800-1600 and 0800-1130; Training Center. By: Dr. Ed Alden, Consultant.

## REQUIRED FOR ENROLLEES IN THE TMC PROGRAM

The objective of this 2 1/2-day workshop/seminar is to assist the technical professional who is facing the choice of continuing in the technical field or making the transition to project/program management make a more informed career decision. Participants should be better able to answer the question, Do I want to become a technical manager?

Through lectures, exercises, and group discussions, participants will learn

- About the impact of values (own and others) on careers and projects/programs
- Fundamentals of individual and organizational behavior
- Why technical managers fail and what it

takes to be successful

- \* How to ease the transition from technical performer to technical manager
- \* How to develop a career/life plan

Deadline: 6 October.

## QUALITY ASSURANCE (8 hrs.)

28 October; Wednesday, 0800-1600; Training Center. By: Melba Swenson, Code 36823 (C2582).

## REQUIRED FOR ENROLLEES IN THE TMC OR SEC PROGRAMS.

This course provides an overview of the role of quality assurance in defense procurements. Topics covered include definitions of quality terms, quality expectations, quality organizations and functions, quality planning, inspections, reviews and audits, quality system reporting, and tools of Total Quality Management (TQM).

Deadline: 14 October.

discussed with an emphasis on the ultimate therapeutic solutions. Each attendee will have the opportunity to ask theoretical and therapeutic questions. Multiple handouts will provide a summary of seminar information. Lifestyle interventions will be contrasted from pharmacological and surgical intervention approaches to risk reduction for CAD.

Presentation Method: Lecture  
Deadline: 8 Oct

To enroll in this course, please submit an On-Center Training Request to Code 2243/C62206. Point of contact is the Wellness Program Office, 939-2468.

## DESIGN OF TELEMETRY SYSTEMS (24 hrs.)

13-15 October; Tuesday-Thursday, 0800-1600; Training Center. By: Frank K. Koyama, Consultant, ETI.

Intended Audience: Junior Professional with a background in electronics or equivalent.

The principal objectives of the course are to gain a general understanding of modern telemetry communication systems, to acquire skills in system design, and to be able to predict system and subsystem performance.

The learning objectives of this course are:

- \* To gain knowledge of the operation of modern communication systems and skills in the mathematics that describe system performance

- \* To understand the various modulation schemes used in modern communication systems and system level trade-offs for the use of each scheme

- \* To acquire skills in formulas and mathematics that are used to predict system performance

- \* To gain knowledge in missile systems telemetry link design

Deadline: 29 September.

## THREAT SIMULATION AND MODELING (40 hrs.)

26-30 October; Monday-Friday, 0800-1600; Training Center. By: Adamy Engineering.

Prerequisites: A general technical background. Some knowledge of engineering math is helpful but not required, since all technical concepts are completely explained.

This is a practical course that presents technical insight into Electronic Warfare (EW) simulation at a level that is both understandable and useful. The scope of the course ranges from an overview of the various types of simulators to practical details for the specification and system level design of each of the various types. It describes hardware, software and processes in graphical rather than mathematical terms. Then it goes on to provide easy to use formulas, nomographs, and calculation techniques, which allow the course content to be readily applied to everyday technical problems. During in-class exercises, students will deal with real-world problems associated with each type of simulation and modeling.

Deadline: 12 October.

## SYSTEMS ANALYSIS (8 hrs.)

27 October, Tuesday, 0800-1600; Training Center. By: Dr. Frank Reed,

Intended audience: All employees.

## Consultant.

## REQUIRED FOR ENROLLEES IN THE TMC OR SEC PROGRAMS:

This 1-day seminar is designed to make the program manager aware of the classical tools of systems analysis. Without going into mathematical detail, the modeling efforts suitable for different types of system analysis problems will be discussed. Methods by which the program manager and systems analyst together can arrive at a modeling effort whose assumptions and limitations are understood, and whose results guide program development, will be discussed. In addition to classical systems analysis, the effect of software development on system design will be covered. The importance of supportive or complementary systems on system design will be presented.

Deadline: 13 October.

## HOW TO LIVE BENEATH YOUR MEANS AND ENJOY IT! (2 hrs.)

23 September; Wednesday, 1600-1800; Training Center. By: Charla Green, Consultant.

Have you been feeling like a financial failure? Now is the time to take action. Learn ways to make more money, spend less money, and borrow money wisely. Find out how to pay less for insurance, investments, taxes, and credit cards. Learn where to get a copy of your credit report and how to clean up any errors. Learn ways to handle your creditors successfully and where to go for help when you need it. Decide whether bankruptcy would help or hurt your financial situation. Find out where your money goes, and create a spending plan that works for you. Learn ways to set aside money for the things that are really important to you, and realize that you can be happy—even if you don't have a lot of money.

Enrollments are on a walk-in basis. Point of contact is the Wellness Program Office, 939-2468.

1. Quality Engineering using Robust Design, by Phadke

2. Orthogonal Arrays and Linear Graphs, by Wu and Taguchi

3. A Primer on the Taguchi Method, by Ranjit Roy

Reference 1 may be available at Tel-mart. If not, it and reference 2 can be ordered from American Supplier Institute (ASI) by calling (313) 271-4200. Reference 3 must be obtained from the publisher (Van Nostrand Reinhold) or ordered from a book store.

Note: Enrollees are asked to bring a 1" 3-ring binder to class with them. Enrollments are on a call-in basis only. To enroll or for more information, call 939-2686.

## INTRODUCTION TO EXERCISE (12 hours)

20 October-24 November; Tuesday and Thursday, 1645-1745; NAWS Gymnasium, Discrete Room. By: Dana Alloway.

This program will provide the opportunity for participants to: learn how to use the exercise equipment in the gym safely, learn and practice a stretching routine designed for relaxation and stress reduction, improve their flexibility, practice activities that lead to muscle strengthening and development, practice exercises designed to maintain a healthy back, experience the joy of movement, and gain a level of comfort and confidence with exercise.

This program is designed for people with little or no experience with exercise. Space is limited to allow individualized support.

Deadline: 8 October.

Enrollments are on a call-in basis. Please call The Wellness Program Office, 939-2468, for information and enrollment.

## TOTAL QUALITY LEADERSHIP OVERVIEW (8 hrs.)

5 October; Monday, 0800-1600; Training Center. By: Maurice Brown.

Intended audience: All employees.

The general themes of this 1-day TQM workshop are Deming's 14 Points, his Seven Deadly Diseases, and an overview of his Management System with emphasis on team problem solving processes. The workshop will provide coaching on "What to Do" by addressing data-gathering steps (Process Flow Charting), problem identification (Brainstorming and together. Enrollments are on a call-in basis only. First-to-call, first-to-be placed. To enroll or if you any questions, call 939-2686.

## INTRODUCTION TO ROBUST DESIGN USING TAGUCHI TECHNIQUES (8 hrs.)

8 October; Thursday, 0800-1600; Training Center. By: Dr. Robert D. Smith, Code C29103.

Robust design is an efficient experimental strategy for identifying the best, in a well defined performance sense, set of parameters for a component, subsystem, system, or process. The technique is general in nature, and not limited to special areas of science and engineering. Robust design is used extensively by the Japanese and its use in the USA has grown considerably over the last 10 years.

Specific topics that will be covered in this course include quality loss functions, orthogonal arrays, data analysis, experiment design, data transformations, predicting performance, and design philosophies. Numerous examples relating to work in the area of simulation and analysis done at NAWC will be presented.

Copies of the lecture material will be provided; however, no text book will be provided. The three useful reference books are:

1. Quality Engineering using Robust Design, by Phadke

2. Orthogonal Arrays and Linear Graphs, by Wu and Taguchi

3. A Primer on the Taguchi Method, by Ranjit Roy

Reference 1 may be available at Tel-mart. If not, it and reference 2 can be ordered from American Supplier Institute (ASI) by calling (313) 271-4200. Reference 3 must be obtained from the publisher (Van Nostrand Reinhold) or ordered from a book store.

Note: Enrollees are asked to bring a 1" 3-ring binder to class with them. Enrollments are on a call-in basis only. To enroll or for more information, call 939-2686.

## NOTICE: MORE CLASSES ADDED

## HAZARDOUS WASTE TRAINING (8 hrs.)

23 September; Wednesday, 0800-1600; Room 211, Training Center.

28 October; Wednesday, 0730-1630; Training Center.

18 November; Wednesday, 0730-1630; Training Center.

By: Environmental Project Office (Code 008).

Intended audience: Those who generate, handle, and manage hazardous waste.

This course is required training for anyone who generates or handles hazardous waste. It is also required training for anyone who manages a hazardous waste accumulation area.

Because the activities of NAWCWPN and NAWS, China Lake, generate more than 1000 kg of hazardous waste per month, we are designated as a Class I Generator and are subject to full regulation under federal environmental laws. One aspect of this regulation is proper training of personnel who generate, handle, or manage hazardous waste.

The course will help attendees to identify hazardous waste; set up and operate accumulation areas; identify time limitations; properly label and store containers; initiate emergency response procedures; initiate requests for disposal; and conduct accumulation area inspections.

Enrollments are on a call-in basis. Point of Contact is the Environmental Project Office, 939-2893. Many departments have identified personnel who need this training. Check with the Environmental Point-of-Contact for your Department to assure you get this training if needed. Call in your enrollment with your preferred date for the training.

Deadline: 14 October for the 28 October and 18 November sessions.

## COURSE LISTING - AT POINT MUGU - OCTOBER 1992

	October
Video Instrumentation Techniques	ES-7
Harvard Graphics, Introduction	14
Proofreading and Grammar Skills	14
Mentoring Workshop	15
MS DOS, Introduction	16
Basic Configuration Management	19-20
Basic Skills and Statistics	19-22
MS Windows, Introduction	20
CPR Basic	20
Career Transition Workshop	21-22
Wordperfect, Introduction	22
Antennas	26-30
Managing Other People's Writing	27-28
Dbase III+, Introduction	28
Wordperfect, Intermediate	30

The NAWCWPN/NAWS Announcements, published by the Technical Information Department (Code 34/C94), disseminates work-related information to all Center personnel and is distributed to all personnel in the Rocketeer on Thursday. To ensure accuracy, all items must be submitted in writing, preferably double spaced, and must include a sponsor code and phone number. The collection deadline for submissions is 1500 Monday. The following pick-up points for material have been established for the convenience of contributors: Room 100, Training Building (Carol Corlett, Code 224), Room 1000, Mich Lab, Room 203, Administration Building (Linda Brantner, Code 28), and Room 121, TID Building. Items may be sent to Code 3415(C9425), or by FAX to 939-0945, Code 3415(C9425), or mailed electronically to TID:ANC via the VAX. Any questions regarding the Announcements may be directed to Russell Bushnell, Code 3415(C9425).