CROSSWORD PUZZLE

priest
40-To allow
41-Near
42-To post
44-To maintain
47-To expel
51-Pedal digit
52-Grain 12-Grain 52-Grain 53-Short jacket 54-Greek letter 55-To sow 56-To lease 57-Man's nickname

DOWN

For Official Use Only

Host Sought for Exchange Student

willing to share its home, family among peoples of the world. The and community life with a for- American Field Service pursues eign student is being sought by this ambition by bringing to the American Field Service, ac- America teen-aged students to

He said a China Lake family gram during 1963-1964.

Purpose of the program, ac- 725593 before Jan. 21. cording to Metcalf, is to further

A host family that would be undertstanding and good will

Answer to Previous Puzzle

Families interested in volunis needed to continue the pro- teering their homes are asked to miss contact Metcalf by calling



SIGNS OVER-Joel F. Heise, electronic technician third class, is administered the oath as he reenlists for six by LCdr. P. F. Mohr. Under the STAR program, Heise will go to Electronics Technicians Class "B" School. The Fullerton youth is assigned to the Ground Electronic Maintenance Group and has been at NOTS for two years.

Safety Slogan of the Week

"CAUTION COSTS NOTHING"

Submitted by Freddie Santangelo, Code 4571



'NO MAN IS AN ISLAND" (114 Min.)

tory based on a true episode of WWII as a

-MATINEE-"WONDERS OF ALADDIN" (93 Min.) Donald O'Connor SHORT: "Tot Watchers" (7 Min.)

"Zombies" No. 2 (13 Min.) -EVENING-"LADIES MAN" (91 Min.) (Comedy) Here's a "poor-soul" lau

SHORT: "Without Time or Reason" (7 Min.) "Porpoise Possee" (10 Min.)

"YOUNG GUNS OF TEXAS" (78 Min.) Jack Mitchum, Alan Ladd, Jody McCrea 6 and 8:15 p.m.

(Western in Color) These offspring of famo een stars get on the trail of Confedera soldiers who are believed to carry stolen gold. Rustling, Indians and these fresh young SHORT: "Bear Couuntry" (33 Min.) JAN. 21

CONCERT Los Angeles String Society and Marilyn Horne 8:15 p.m.

'PHANTOM OF THE OPERA" (83 Min.)

7 p.m. (Mystery Drama in Color) A suspensef SHORT: "Mother's Little Helper" (7 Min.)

"Riviera Days" (10 Min.) "MUSIC MAN" (151 Min.)

Robert Preston, Shirley Jones 7 p.m. Thursday live in this country for a year. of a fast-talking carpet-bagger who tries to

Aetna Agent Due Here Next Week

Paul Menefee, health insurance representative for the Aetna Insurance Company, is scheduled to visit the Station next Thursday and Friday, Jan. 24-25. He may be reached for consultation at the Community Center during the following hours: Thursday: 8:30 a.m. to 6:30 p.m. Friday: 8:30 a.m. to 4:30 p.m.

New Flight Time Starting Jan. 19

cific Air Lines morning flight schedule will be changed in accordance with the following:

Flight No. 481, departs Invokern at 6:15 a.m. arriving at Los Angeles International airport at

Flight No. 482 departs Los Angeles at 7:45 p.m., arriving at Inyokern at 8:41 p.m.

Navy Exchange Store Closes For Inventory

The Navy Exchange Retail Store will be closed for inventory all day Thursday, Jan. 24, and will re-open at 10 a.m. Friday, Jan. 25.

The Outdoor Shop will also be closed on Jan. 24 and will reopen at 11 a.m. on Jan. 25.

Social Security Agent Will Be Here Jan. 23

Clay McMikle, representative for Bakersfitld's Social Security Office will be at China Lake on Wednesday, Jan. 23rd. He will be available for consultation at the Community Center from 8:30 a.m. to 11:30 a.m.



GOES FOR TWENTY-Bosm Mate First Class Jack Johnson signs his shipping over papers for a four year hitch. A veteran of WW II and the Korean Conflict, Johnson has 17 years active duty to his credit. He is attached to NOTS Enlisted Personnel Div. Johnson's wife, Josephine, his son Jack Jr., 12, and daughter, Williefaye, 11 months, live in

LAW IN ACTION

Henry died and left no will. marriage. When it ends the Afterwards two women other spouse may claim some claimed his estate, Maria, of of the community property. New York, his first wife, Upon death, one partner can

left in 1940 but never divorced, and Amy, who thought she had married him in Cali-

fornia later. Amy knew nothing of Maria until Henry died. The court split the estate.
But Maria and Amy were not satisfied. Both appealed. The higher court reaffirmed the half and half division.

Maria had married Henry first. But Amy took Henry as a husband in good faith. And thus became his "putative"

Had he legally married Amy his estate would have been community property and all hers under California law. Even so as a putative spouse Amy could claim half as if it were her share of community The putative spouse rule is

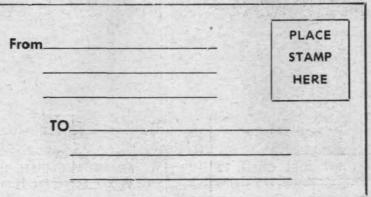
Amy was void.

property. But the other half an exception to the community would go to Maria, Henry's property rules. It rests on a rule of fairness to an inno-No man can have two legal cent party. In Amy's case, she wives. Henry's marriage to thought she was married and had helped in building most of Most community property the estate.

leave his half as he pleases.

The other half belongs to his

Note: California lawyers offer this column so you may know about our laws.



Spring Semester Courses — See **Special Section** Pages 5, 6, 7, 8



Vol. XVIII, No. 2 Naval Ordnance Test Station, China Lake, California Fri., Jan. 18, 1963

Spring Is Near! Little League Getting Set.

See Page 11

Cdr. O'Connor New VX-5 Co



Commander W. A. Schroeder Jr. Relieved in Change of Command

Cdr. Schroeder Goes To NA, Atlantic Fleet

A combat decorated naval aviator whose World War II exploits includes capture of a German U-boat in the mid-Atlantic assumed duties here today as skipper of Air Development Squad-

is to relieve Commander W. A. and succeeding voyages in Pa-Schroeder, Jr., during formal cific areas. change of command ceremonies | Cdr. Schroeder, CO of the local

vilian dignitaries. The Marine Corps' Third Air ment here.

Commander Harry N. O'Con- USS Kitty Hawk. He was an orinor, holder of the Distinguished ginal member of that ship's crew Flying Cross in addition to fif- and served in the giant flat-top teen other medals and awards, throughout its maiden voyage

scheduled to begin at 10:30 a.m. squadron since Sept. 1961, ends Witnessing the colorful pro- his second tour of duty with gram will be Rear Admiral C. K. VX-5, his first being as a project Bergin, Commander, Operational pilot here in 1954. Test and Evaluation Force, in ad- He is to report to staff duties

dition to senior military and ci- with the Commander, Naval Air, Atlantic Fleet, following detach-Wing band, based at El Toro, The incoming skipper began Calif., has been flown here to his Navy career as a flight cadet

participate in the traditional in 1943. As a World War II fighter pilot, Cdr. O'Connor served Cdr. O'Connor last served as with Composite Squadron-8 in Air Officer on the attack carrier, (Continued on Page 2)



Commander Harry N. O'Connor Takes Over VX-5

Captain Tells Kern Leaders **NOTS \$ Role**

"We are the largest single employer in Kern County with a payroll that exceeds the total industrial payroll of the entire county," Capt. Charles Blenman Jr., ComNOTS, told a panel of county business and industrial leaders gathered in Bakersfield Wednesday for the Sixth Annual Business Outlook Conference.

He reported a \$4-million expenditure by his command during 1962 for county supplies and services in support of the Station's mission. This amount is double that which was predicted at last year's conference, he

"We foresee possibilities of greater expansion during the forthcoming year, but it's a matter of sharpening your pencils if Kern County wishes to share in the Station's budget," he told the business leaders.

"The business is there and I would like to see more contracts go to this county's concerns."

Captain Blenman reported that contracts amounting to \$1.5-million would be announced for bid during the first half of 1963 in areas of construction, supply and services. One-half million of this is for construction by the Department of Health, Education and Welfare for China Lake Elementary schools, he explained.

and civilian personnel here is "Make this area so attractive to them that they will not want to go outside the county to spend

this money," the Captain urged.

The total payroll for military

Boy Scouts Thanked

freezing weather forecast for the through the area. night of January 10.

Mercury Dips to 0° Here



-Photo by Lee Mascarello

METEOROLOGIST Donald L. Farnham looks again . . . Yep, it's ZERO!

ing areas when they delivered morning as the current cold same day was 43. Last year on tation Lab. notices to the homes of the wave continued to ice its way Jan. 24 the temperature dropped Temperatures recorded at both 86; Richard Johnson, Code 87;

to 6 above zero.

ZERO — the second lowest of- by Donald L. Farnham, Station ed a 6-above Sunday at runway Code 50; M. J. Curtis, Code 55; nbers of Boy Scout Troops ficial temperature on the Sta- Meteorologist, at the Instrumen- level, which was the lowest read- Terry Haycock, Code 65; Floyd 2 and 41 won plaudits for a "good deed" well done from residents of the Capehart hous-

weather stations since last Sat- C. T. Goodreau, Code 88; and The record-breaker was noted NAF Weather Station record-urday are listed on Page 2. Ens. R. G. Patterson, Code 9576.

22 Keymen Appointed to Joint Crusade

A Station-wide appeal for "generosity" in contributions to the annual Federal Service Joint Crusade-National Health Agencies campaign for funds was sounded Monday with the appointment of 22 Keymen, representing Station departments.

Drive Chairman Lester "Red" G. Garman named "J" "T" Bibby assistant drive chairman, and officially launched the drive following a rally Monday.

Scheduled to run through mid-February, the fund campaign represents seven National Health Agencies: National Association for Retarded Children, National Multiple Sclerosis Society, National Society for Crippled Children and Adults, American Cancer Society, American Heart As sociation, Muscular Dystrophy Associations of America, Inc., and National Association for Mental Health.

The Federal Service Joint Crusade represents the American-Korean Foundation, Radio Free Europe Fund and CARE.

Envelopes are to be distributed to each employee on the Station as a means of fund solicitations, Garman said.

Named as Keymen for the campaign were:

Jack G. Broward, Code 00; Clayton Ross, Code 17; Lt. O. G. Heins, Code 18; Les Farrell, Code 20; Ralph Rogers, Code 25; CPO O. R. Nichols, Code 28; Bill Esch, Code 29; Robert Emerson, Code

Nils Wagenhals, Code 35; Willodine Randolph, Code 40; A. P. Holbert, Code 45; Harold Turner, 85; 1st Sgt. F. D. Brandon, Code

Community Council Installs



INAUGURAL ADDRESS was given by Community Council's newly installed president, William Hattabaugh (standing, rear) during ceremonies Wednesday night. Others elected to '63 offices were Harry Bearman, vice president; Robert Glen,

executive secretary; Mike Kauder, recording secretary and John Hensley, treasurer. Nearly 200 local residents witnessed event to hear Hattabaugh praise outgoing officers and pledge his efforts for community progress at China Lake.

Temperature Readings of Past Week

Friday, January 18, 1963

INSTRUMENTATION LAB

Sun	43	0
Mon	51	6
Tues	55	9
Wed	58	11 .
Thurs	60	13
7 77	NAF	
	High	Low
Sat	39	19
Sun	43	6
Mon	52	9
Tues.	56	15
Wed		17

Half a million school children in Pakistan recevied a daily glass of milk through CARE last year. Cyclone victims of East Pakistan received 95,000 CARE food packages while 12 CARE block making machines were rotated among villages to help rebuild schools and houses.

Once-a-Month Pay For NR ASW Crews

Pay day aboard ship will become a monthly routine for Reserve crew members of the 40 destroyers and destroyer escorts of the Naval Reserve anti-submarine warfare component commencing this month

Berlin crisis.

turned to their home ports last

August from 10 months deploy-

ment with fleet units during the

Under the new policy, Naval

Reserve ASW crews which train

the third weekend of each

monthly drill. Pay checks will be

based on a Reservist's previous

pay, based on current Navy pay

Finance officers in each of the

Naval districts concerned will

mail checks directly to command-

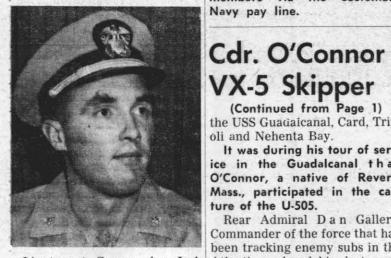
ing officers or officers in

charge of Reserve training ships

The new policy, which replaces quarterly payments by mail, extends the Navy's traditional "pay call," familiar throughout the fleet, to Reserve sailors who train aboard ships home-ported on both coasts, the Great Lakes and in the Gulf of Mexico.

month will be paid during each Adopted on a one-year trial basis, the plan is designed to strength levels aboard the Navy's month's performance and may Reserve training ships which re-

Security Officer **Gets Command of PacFit Transport**



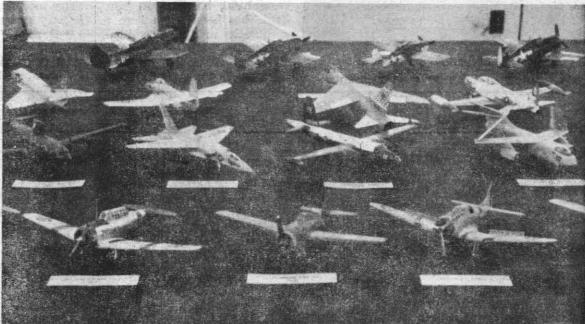
has been ordered to command only time in WW II naval history, the high speed transport, USS America sent a boarding party of the ground below into a cock-Cook, based at San Diego. aboard the sub to take it in tow pit screen.

The Long Beach, Calif., Naval to Bermuda. officer is scheduled for detach- O'Connor won the Presidential Groundhog Watchers: ment here in early February. Unit Citation for his part in the Your Day Is Coming

LCdr. Griffin was skipper of capture. GMU-25 after reporting here in The Navy three-striper earned who went to sleep at the age of ent duties late last year, reliev- during the early days of the Ko- reaching the biological age of 18 ing Marine Major Maurice Rose. rean conflict, while serving in if he were more like a ground-

Married and the father of six the carrier, USS Valley Forge, as hog. sarge. His family includes his Three. Kevin R., 13, and Maureen L., 10. mation.

Half-Century of Aviation



HISTORY OF NAVAL AVIATION is told through display of scale model planes now

on exhibit at Michelson Lab. American Aviation Historical Society is the sponsor.

for delivery to individual crew members via the customary Two NOTS Stories In The Navy Times

In a recent issue of the Navy Times the Naval Ordnance Test Lake residents. Station was the subject of two interesting articles.

One story related the presentation of the L.T.E. Thompson he USS Guadalcanal, Card, Trip-It was during his tour of serv. Force Pacific.

O'Connor, a native of Revere, development work being carried and CWO Charles W. Valentine LCdr. Pinner was with an Air Mass., participated in the cap- out at China Lake on a "Seeing have reported for duty at NAF Early Warning Wing in the Pa-Rear Admiral Dan Gallery, Condor is a television-guided, Clemente Island. Commander of the force that had air-to-surface weapon. It would LCdr. Pinner is Officer in er. been tracking enemy subs in the be dropped from a plane as high Charge, Ground Control Ap- CWO Valentine previously Lieutenant Commander Jack Atlantic, ordered his destroyers as 40,000 feet. The aircraft could proach, Unit 57, and CWO Valen- was Avionics Officer with Heli-R. Griffin, Station Security Offi- and planes in to depth bomb the turn and escape from the area tine is Ground Control Approach copter Anti-Submarine Squadron cer and former office-in-charge German submarine after its de- while the pilot guided the mis- Maintenance Officer of the unit. 1 at Key West, Fla. of Guided Missile Unit-25 which tection. Brought to the surface, sile to the target from as far as was dis-established in mid-1962, its crew surrendered and, for the 100 miles away. TV cameras in

New York (AFPS) — A person May 1961, and assumed his pres- the Navy Unit Commendation 17 could sleep a century before

children, he lives at 704B Kear- a member of Carrier Division. The groundhog, whose chance at weather prophecy comes each wife, Kathleen, and children, Cdr. O'Connor and his wife, Feb. 2, can slow down his metab-Michael, 9, Ross, 7, Kelli, 6, Deb- the former Helen Rawlings of olism during hibernation to a bie, 5, and twins Carl and Mari- Boston, Mass., have two children, point approaching suspended ani-

in tangible form has been pro- rently on display in the lobby of vided by the American Aviation Michelson laboratory. Historical Society for China The models range in vintage

The history of Naval aviation via scale model airplanes is cur-

from the pre-WWI Curtis N-9 up A 100-plane exhibit that spans to today's modern jet fighters a half-century of naval aviation and sea transport planes.

Award to Vice Adm. Paul D. Stroop, Commander Naval Air Two Report to SCI

Eye" Missile called Condor. The and have been assigned to San cific as shops and hangar officer

ice in the Guadalcanal that The other article told of the LCdr. Richard S. Pinner Jr. Prior to assignment at SCL



LCdr. Richard Pinner Jr.



CWO Charles Valentine

RIM SHOTS

By BILL VALENTEEN

The links are dark this month, Sport. No tournaments, just plenty of frigid, fresh air. Paul Someson has taken advantage of the slack period to paint the pro shop. It looks great, too! And you should have seen him-standing on that ladder with a paint brush in one hand, while squeezing a golf ball with the other. Both are good for the wrists, you know. He's what you'd call your "chemtone Arnie Palmer."

Hank Davis, the blind-golfers' champ, (Maybe that's the answer, I don't know) will also be doing a bowling stint at the Anchorage lanes on the 27th. And he'll be out at the Ridgecrest Bowl that same evening. Believe me, Sport, this guy is something else again.

Here's how he works. He throws his first ball. Then, it there's a spare to make, someone tells him what combination of pins are still remaining. In order to put himself in the right position to make the spare, he uses the rubber pad at the top of the approach to set himself up for the shot. Most of the time he gets them. He's got a 185 average, and he's worth

Speaking of the Ridgecrest alleys, owner John Dragovitch, who is a member of the Professional Bowlers' Association, received a shirt from the ABC network for use on TV. He could be called either for the program, "Make that Spare" or you might see him in the final rounds of one of the tournaments.

in this state. I don't think that's the answer. If boxing is allowed to be abolished, then, who knows, maybe football will be next, or maybe baseball. Abolishing a sport is no way to clean it up Do you remember Prohibition? Would you outlaw automobiles because more lives are taken on the highway than anywhere else? No, you put pressure on the drivers. Boxing should be cleaned up, granted, but there are other ways. Action should be taken to see that fighters are given better physicals before they enter the ring. Fighters should be restricted to the number of fights in which they can participate during a general "safe period." Applications for licenses should be more carefully scrutinized, and more frequently reviewed. The best thing they can do is to take the money out of the game. This would eliminate racketeering, and that's what's wrong with boxing in the first

The Stockers will be going on Sunday in what is considered to be the biggest "500" west of Indianapolis. Riverside Raceway will be the scene of the laps and Les Richter, General Manager, says he's expecting a capacity crowd. So, if you're planning to go, you'd better get there early. Qualifying rounds and secondary events will begin at 11 a.m. tomorrow.

The L.A. Invitational Indoor Track Meet goes Saturday night at 8 p.m. in the Sports Arena. Because of this idiotic feud between the AAU and the NCAA, local college stars, like those from USC and UCLA, won't get to compete without losing their eligibilty for something else. This fight is so stupid (AAU-NCAA) that I hate to give it space, but the outcome of the present arbitration talks will have widening effects on the selection of the U.S. Olympic team. Russia is out to nail down the International Sports Crown, because of the political mileage they If we don't field the best possible combination of athletes

to stave off their assault, we will, in fact, be aiding the Communist movement around the world. Right now, however, it seems as though the only way General McArthur, arbitrator for the talks, will be able to settle the dispute is with a brick bat!

Boy Bowlers Honored Two boy bowlers pinned down league play. He was awarded a

game Emblem when he bowled a sponsored by Kiwanis. Jan. 5. He's now in second place held Sunday, Jan. 27, for Ban- National League? for high game. Joel's team is tams and Juniors, with their parsponsored by the Jr. Bowling ents. Bantams bowl in Ridgecrest the Year in baseball's American the Groves School Cafetorium Weapons

the AJBC for his 227 score in or Chuck Mangold, 71791.

Joel Cash, 12, of the Boys Ban- ley at China Lake by the Men's the Year in the American Foot- other community commitments, ABR Sparks tam League qualified for a high City Association. Frank's team is

at 1:30 p.m. and Juniors bowl at League? Frank McElfish, 15, of the Jr. the Civilian Alley on the base at Joes and Janes League will be 12 noon. For info and applica- 6. What National Football ing nights are Monday, Jan. 28; Bluejackets awarded high game Emblem for tions, call Mrs. Schad at 75012 League team went through the Tuesday, Jan. 29; Monday, Feb. Dark Horses



JOEL CASH, 12 Bowls 175 Game



FRANK McELFISH, 15 A 227 Score for Him



THE ROCKETEER

Ski Club will meet Monday, Jan. 21, at 7 p.m. in Room 22 at the Burroughs High School.

taken at Mammoth and the schools on Monday, aJnuary 21st Greenhorn Mountains., as well as Paul C. Driver, club director.

Valley from the sixth grade returned. This year the applicathrough High School.

The group is sponsored by the Indian Wells Valley Recreation In addition to bringing the ap-Council. Its activities are directed by Mr. and Mrs. Paul C. Driver, who may be contacted at Ext.

SPORTS QUIZ

1. Name the only horse that ever defeated Native Dancer.

2. Who is the National Basket-

ball League?

(Answers to Quiz)

7. Rochester, Toronto, Syra-

esnoeaks 'sekeyos ydopy '7 Eligibility for participation in Engineers

Jr. Ski Club Sets Little League Meeting for Jan. 21 Getting Ready The Indian Wells Valley Jr.

Spring is in the air even if the temperature is dipping below freezing every day. The approach of spring is heralded by the Program for the evening will distribution of Application Blanks by the China Lake Little include color movies of skiing League which is scheduled to commence through the China Lake

With a number of innovations helpful skiing techniques by scheduled this year, China Lake Little League officials have The Junior Ski Club is open changed the method under which Wherry Housing. All boys must to all youngsters of Indian Wells the application blanks are to be tion blanks must be brought by the boy accompanied by at least one parent to a League meeting. plication blank, the parent is also required to bring the boy's birth certificate or other acceptable proof of age.

This meeting will consist of a Teetotalers short briefing on the league Tadpoles plans for the coming year, an- Pincrackers swering of questions concerning Blue Jackets the program, acceptance and N.A.F.checking of application blanks, Armed Couples Mixed Couples and signing up of parents for vol- Hits & Misses unteer work in the program.

Because of the large number Flying Pins ball Association's all-time leading of boys who annually participate Rinky Dinks in the China Lake Little League Clix .. some high honors for themselves. 200 pin Jan. 5 at the Civilian Ala total of four meetings have Chuckers been set up so that each boy and 4. Who was the last man to at least one parent should be Desert Music. game Emblem when he bowled a sponsored by Rivalis.

175 game at Ridgecrest Bowl on A bowling tourney is being collect 150 or more RBIs in the able to attend one of the meet-Millers for Men

5. Who was the 1961 Rookie of The meetings will be held at Demarcos. starting at 7:30 p.m. The meet- Light Horses 1961 season without winning a 4, and Tuesday, Feb. 5. It is Sumco hoped that boys 8, 9, and 10 Salmons 7. Name four of the eight the meeting Monday, Jan. 28 or Playboys years of age will attend either No Names . cities represented by teams in baseball's International League and 12 years of age should attend the meeting either Tuesday, Jan. 29 or Monday, Feb. 4. If Basketball Schedule other meetings.

'1-11-0 It is extremely important that NOTS vs NAF 'xos attend one of the scheduled pea uotsog 'llewilo Don S meetings since application blanks Team 'sined 't Louis de la louis de la louis Davis, Dodgers, All Nation of the Nation of th SLOW te sleipitto and and se schools or pale and se schools or palles. 'sleuoiteN any other time.

the China Lake Little League Salt Wells Baseball program is limited to VX-5 6-XX | Base land is limited to VX-5

boys born between August 1, 1950 and July 31, 1955 who reregister each year regardless of whether they played Little League Baseball at China Lake last

Bowling Statistics

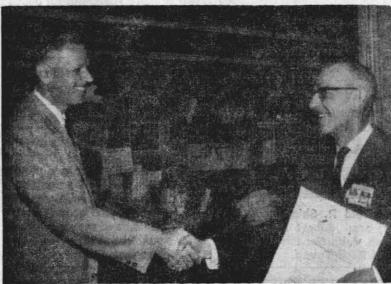
20 and Women 28 27

January 24

'suinspay uoibuidseW. '9 the boy and at least one parent Engineers vs Salt Wells 7:30 p.m.

NOTS Pasadena News

Superior Accomplishment



REDESIGN OF HAND LIFT TRUCK was the basis for award to Norman E. Horn (right), Head of the Logistics Equipment Section, Product Engineering Division. He is congratulated by J. H. Jennison, Division Head. With NOTS for 11 years, this is the fourth such award he has received. The redesigned hand lift truck is used for handling weapons and weapon components both ashore and aboard ship. The Navy estimates a savings of \$700,000.



GUIDANCE AND CONTROL DIVISION men Yoshiya Igarashi (center) and David E. Faulkner (right) receive certificates from Dr. H. Wolfe, Head of Guidance Branch. Igarashi was cited for significant contributions in the field of experimental and theoretical studies of acoustic properties of the ocean medium. He is a Senior Physicist in the group. Faulkner, an engineer, was lauded for his work on a new ASW torpedo.

Bill Price Honored



TWENTY-YEAR MAN - Bill Price (center), Plant Account Representative in the Budget Branch of the Underwater Ordnance Department, receives a 20-year pin and commendation from Len Freinkel (right), Technical Planning Staff Head, while Ruel Cameron, Budget Branch Head, looks on and offers congratulations. Bill came to NOTS from the Long Beach Naval Shipayrd in May 1950. During WW II he served in the Air Force with the majority of his duty in the -Photo by Ron Tharp, FA North African Theatre.

Community Chest Over The Top

The Community Chest drive of 26 Federal Agencies in the Pasadena-Altadena area went well over the top of its goalabout 112 per cent-it was announced at NOTS Pasadena re-

Capt. E. I. Malone, Officer in Charge, NOTS Pasadena, was UCLA, Author of "Nine Hours Hourly Salary Range: \$3.39 to dividend rate, election of the Chairman of the area drive, and Carney D. Kraemer, Public Information Officer, was Vice Chairman.

NOTS zoomed over the top in its own drive within the first week. Contributions to the campaign fund are still coming in, Author. so the total could possibly exceed the 112 per cent mark.

TB Clinic Set Monday A tuberculin test clinic will be

held at the Foothill Dispensary on Monday, January 21, from 9:30 to 11:30 a.m.

The clinic is offered through the joint services of the Pasa- will be conducted at NOTS Pasadena Tuberculosis Association and the Pasadena Health Department. It consists of simple skin test, usually on the forearm, which will show whether or not any TB germs have entered the

A second clinic will be held on January 24, 9:30 - 11:30 a.m., for reading results of the tests.

Employees wishing to take the est should fill in the cards. which have been distributed to all hands, and present them at the Dispensary when reporting.

SAN DIEGO Ships to Host **General Visiting**

Ship USS Stone County (LST

fish (AGSS 395), Landing Ship letter reads: Dock USS Thomaston (LSD 28).

16-17 Feb. — Submarine USS December 20, 1962. Volador (SS 490), Guided Missile

National Health Agencies FSJC Fund Drive Set

on-the-job fund solicitations approved by Presidential directive for all Federal establishments dena from Jan. 25 through Feb. 12, Campaign Chairman Bernard Silver has announced.

The annual drive seeks contributions for both the Federal Service Campaign for National Health Agencies and the Federal Service Joint Crusade.

Chairman Silver has set the date for the first meeting today, at 1000 in the Bldg. 7 Large Conference Room. He will address selected keymen, briefing them on the activities of the agencies and the mechanics of the campaign. At this time, representatives of the agencies will be pres-

Assisting the Campaign Chairman in the drive will be Dick Frederick handling publicity and dren's Society of Los Angeles, Ruel Cameron as treasurer.

26-27 Jan. — Submarine USS To NOTS Xmas Choir

Chevalier (DD 805), Large Sea- received by Nadine Robinson for family in our nation is immune plane Tender USS Pine Island the NOTS Xmas Choir caroling to the tragedy of disease or disat the Veterans Administration ability. Our contributions pro-2-3 Feb.—Submarine USS Red- Hospital on December 20. The vide the voluntary health organi-

"Thank you for caroling for 9-10 Feb. Submarine USS Spin- our patients on the Spinal Cord all of us. ax (SS 489), Destroyer USS In- Injury Service and Wards X-13 and X-12 on the afternoon of FSJC are Radio Free Europe

"The excellent caroling by Destroyer USS Towers (DDG 9). your group brought much cheer Radio Free Europe is the re-22-24 Feb. — Submarine USS to our convalescing veterans. Our spected source of news about the Catfish (SS 339), Drone Launch patients have asked us to ex- free Western World and also the Craft USS Targeteer (YV 3), press their appreciation for your news from behind the Iron Cur-Guided Missile Destroyer USS thoughtfulness in bringing tain to three out of four of the Christmas to the hospital.'

USO-JWB Presents Series of Lectures

tures to be presented during the School of Religion, USC, Arch100 per cent participation and a months of January, February, aeologist.

Rabbi Edgar F. Magnin, Chair- ple, Author. H. Dubin, Forum Director, all and Radio Personality. attend the Sunday Morning Fo- al Law, Stanford University. Blvds., Los Angeles, for 10 Sun- Analyst.

The series of lectures by distinguished personalities are as follows:

Jan. 20 - Dr. Manuel P. Servin, Assistant Professor of History, USC.

to Rama."

Feb. 17-Frank Gervasi, Lead- Angeles area.

The Los Angeles USO nation ing Foreign Correspondent. Office announces a series of lec. Associate Professor, Graduate

Mar. 3 — Dr. Maxwell H. Du-Through the cooperation of bin, Rabbi, Wilshire Blvd. Tem-

ilies are invited at no charge to Visiting Professor of Internation-

rum in Wilshire Blvd. Temple, Mar. 31 - Edward Weeks, Ed-Wilshire, Hobart and Harvard itor, Atlantic Monthly, Political Credit Union Meeting

ID Card.

PROMOTIONAL **OPPORTUNITIES**

To apply for positions, con-Jan. 27 — Sir Geoffrey Furlonge, Noted British Statesman.

The fell sire of the state of the sta

Feb. 3 — Dr. Stanley Wolpert, Inspector (Ordnance Electronic The following business will be Assistant Professor of History, Equipment—Developmental) A: conducted: Declaration of the \$3.67 (to be adjusted upward in Board of Directors and the Cred-Feb. 10 — Dr. Alfred Wolf, accordance with new schedule it Committee members, reports Rabbi, Wilshire Blvd. Temple, of wages); Code P5513 - As a on past year's business, and any transient inspector in the Los other matters of interest to Cred-



Bernard Silver, Chairman

County, Los Angeles County As-The participating National sociation for Mental Health, Los general visiting in the San Diego | Health Agencies are The Ameri- | Angeles County Council for Re-Area during the months of Jan- can Cancer Society, The Arthrit- tarded Children, Los Angeles uary and February from 1-4 p.m.: is and Rheumatism Foundation, County Heart Association, Mus-19-20 Jan. — Fleet Tug USS California Society for the Preven- cular Dystrophy Associations of Cree (ATF 84), Tank Landing tion of Blindness, Crippled Chil- America, Inc., National Multiple Sclerosis Society, United Cere-Letter of Appreciation bral Palsy Association of Los An-

Rock (AGSS 274), Destroyer USS A letter of appreciation was President Kennedy said, "No zations with the means to continue the fight for better health for

Agencies benefiting from the Fund, American-Korean Foundation, and CARE.

80 million people of five satellite nations of Eastern Europe.

American-Korean Foundation has been active in aid to the widows and orphans left by the war. CARE, international food dis-

tribution and relief agency, operates through Missions headed by American Mission Chiefs in 34 areas of Asia, Africa, Europe and South America.

"generous gift" would be a theme of the campaign. "These organizations depend largely upman LA JWB Armed Services Mar. 17 — Denis Warner, Fore- on voluntary contributions," he Committee, and Rabbi Maxwell most Australian Newspaperman said, "and everyone should have the opportunity to support them military personnel and their fam- Mar. 24 — Dr. Thomas Franck, and thus help achieve the objectives.'

Date Set For Annual

The annual meeting of the day mornings from 10:15 to 11:45 | Please wear uniform or show NOTS Pasadena Employees Federal Credit Union will be held at 1200, Jan. 22, in the Building 7 Large Conference Room, President Bill Derby has announced.

Although only Credit Union members are eligible to vote, all employees of NOTS Pasadena are

Death Valley '49ers Thrilled by Tour

reciprocal enthusiasm of the guests - as some 50 men and women members of the Death Valley '49ers toured the Station last week-

the expressions of the visitors and other meteorological pheas they saw some of the projects nomena. The original NOTS now being conducted and were project is now called "Stormgiven an insight of future pro- fury."

Friday, January 18, 1963

ference Room A.

See SNORT

A bus then fook the '49ers to in 1905. A native of northwest the SNORT facility where they were awed by a sled shot which light in 1898, worked for the were awed by a sled shot which tested a Sidewinder component. Santa Fe as a telegraph oper-Lester G. (Red) Garman, Head after and also did more than his of the facility, explained that share of prospecting and min-NOTS has three supersonic ing. tracks, each of which is used for a specific job. In the pro- Back at Mich Lab, Bill Hamp-

explained that five Nike boosters projects he likes to call "wetpush the especially designed sled work on the dry desert" and "box" at precision speeds to probes into "innerspace." catch two 155 mm. howitzer "This is an extremely fast, pincott said.

Gemini Ejection

Gemini space project also have tion (birds and bees), and (4) been conducted here, Garman Sonar capabilities (bats and por-

Through the bus windows en

"Just fabulous!" was typical of ing toward control of hurricanes

Among the guests who voiced . The tour started with a lunch- amazement and appreciation for eon Friday at the Commissioned what is being done in the desert Officers Mess. Capt. Charles lands he had trod years ago was Blenman Jr., ComNOTS, greeted Capt. R. A. Gibson. Things certhe group with welcoming re- tainly have changed in these marks before they saw the film, parts, he mused, since he was a "Expanding Frontiers in Ord- mule swamper at the turn of nance" at Michelson Lab's Con- the century. Capt. Gibson drove the first mule team out of Las Vegas to Bullfrog, now Beatty,

'Innerspace' Probes

jection room they saw movies of ton, Technical Presentations Coother SNORT programs: seat ordinator who was in charge of ejections, testing of aircraft the entier tour, introduced Cdr. structures, and the "Catshell" L. H. Lippincott, Test Operations Officer, to the group asNotty, we have been able to two-man Moray research vehicle brookfast at the COM, the Death

pointed out: (1) Sea animal lo- hicles, particularly acoustics. Friday evening was devoted to cheon at the home of Capt. and comotion, (2) Odor-"homing" Ejection tests for the two-man (dogs, for instance), (3) Naviga-

The Amazing 'Notty'

route back to Mich Lab, tour The case of the porpoises was guide Dick Rusciolelli pointed brought home to the visitors out the ranges where various when they saw the movie of missiles and rockets are tested. "Notty" being taught a variety He told of the "Cyclops" proj- of maneuvers and sounds. The eet, headed by Dr. Pierre St. study of porpoises has brought Amand, which is now progress- better understanding in the



SNORT SLED is explained by tour guide Dick Rusciolelli (second right) to '49ers officials (from left) President Ralph Fear, Director Paul Bailey, Second Vice President Richard

Bailey, Secretary Thomas Baskin, Director Harry Gower, immediate Past President Charles Scholl and Director Capt. R. A. Gibson (extreme right) after seeing test firing.

hydrodynamics and sonar fields. Another highpoint of the tour a reception and dinner at the ing figures are similar to a tor-

"soft"-catching is to enable ord- prising how much we are learn- make four distinct sounds: a chemical labs, and then a much- dinator, spoke on the Early Hisnancemen to examine the shells ing from slow animals and mamand a creaking-door sound. All Museum, where Rhea Blenman, Valley. Later he took them on a Time magazines recently pub- Such creatures are superior to these facts are important in the wife of the commander, was local tour of the area. lished accounts of this NOTS humans in four categories, he development of underwater ve- hostess.

of the unique craft. The '49ers were amused to Next on the agenda were ence Room A where G. R. Suthdown the track. The purpose for he related, "and yet it is sur- learn that these sea creatures Mich Lab's machine shops and erlen, Ground Electronics Coor-

"With instruments attached to came when the group saw the Commissioned Officers Mess. The latter really caught the visitors' interest when Garman Cdr. Lippincott told them of visitors' interest when Garman Cdr. Lippincott told them of construction. The result
Notty, we have been able to send when Garman Moray research venicle breakfast at the COM, the Death visitors' interest when Garman Cdr. Lippincott told them of and flow patterns. The result
tific purposes were described met in Mich Lab's Conference pedo of similar size," Cdr. Lip- by Lt. Robert Montross, operator Room B. Meanwhile, ladies of

Climaxing the visit was a lun-



guests by Lt. Robert Montross, the unique

Expressing thanks for the tour were '49ers President and Mrs. Ralph Fear and other officers and members, Mrs. Mary Grant, Mr. and Mrs. Ralph P. Merritt, Miss Varina Merritt, Mrs. Hazel Henderson and Miss Ruth Woodham, Mrs. Margaret Lewis, Mr. and Mrs. Thomas H. Baskin.

Mr. and Mrs. William H. Newbro, Mr. and Mrs. Paul D. Bailey, Mr. and Mrs. L. Burr Belden, Mr. and Mrs. Charles A. Scholl, Dr. and Mrs. Thomas Clements, Mr. and Mrs. Paul Palmer, Mr. and Mrs. Hugh C. Tolford, Mr. and Mrs. Richard C. Bailey, Mr. and Mrs. Willard Wade.

Mr. and Mrs. Floyd B. Evans, Capt. and Mrs. R. A. Gibson, Dr. and Mrs. S. R. Broadbent, Mrs. G. G. Harriman and Miss Mary Moon, Mr. and Mrs. Carl C. Cowles, Kenneth Reim, William Thompson, Harry P. Gower, Mr. and Mrs. Arthur Walker, Mr. and Mrs. George Sturtevant, Mr. and Mrs. Thomas W. Mathew, Mr. and Mrs. Alex C. Krater, Mr. and Mrs. Paul DeDecker



AWED BY SUPERSONIC SPEED of the SNORT sled as it roars down the track, Death Valley '49ers visitors watch

from roof of test control building. Near upper left is Division Head L. G. Garman.

EDITORIAL

The FSJC for 1963 Merits Our Support

With the advent of the new year, three agencies with past records of splendid service to the Free World are again seeking support from Federal employees and members of the Armed Forces in the United States. All three-CARE, Radio Free Europe and the American-Korean Foundation-are non-profit organizations and all three benefit from the annual Federal Service Joint Crusade.

President Kennedy, in urging our generous contribution to this year's FSJC campaign between now and April 30, has quoted Edmund Burke's memorable maxim — "The only thing necessary for the triumph of evil is for good men to do nothing." That is as profound as it is simple, and the three agencies asking our help are all dedicated to fighting evil-the evil of hunger and want, the evil of Communist imperialism.

Cold figures alone reflect the fine record of accomplishment. Approximately 80 million people in countries behind the Iron Curtain depend on RFE for contact with the West. CARE has shipped more than \$500 million of food, tools, equipment and scientific and educational supplies to some 50 countries around the globe. In South Korea, still recovering from years of devastating war, a team of six doctors, six nurses and 13 university students sponsored by AKF in one week treated more than 3,000 patients in a clinic set up in a schoolroom. The record of humanitarian achievement is endless.

Secretary of Labor W. Willard Wirtz, FSJC National Chairman for the current campaign, has said that "Whether serving in uniform or in a civilian capacity, Federal employees are in the firing line of our national defense." Our target is "fear, hunger and poverty throughout the world" and FSJC offers us a single bullet to hit all three targets.

CHAPLAIN'S MESSAGE

An Open Letter To The Givers

By Chaplain Robert C. Fenning

A number of notes and letters from families who received gifts of groceries, clothes and cash from the Chaplain's Fund during the recent holiday season have come to our desk in the past few days. The liberal people of the community who sent their generous gifts along to us should know how much their contributions meant to those who would otherwise have had a very meager Christmas.

The Chaplain's Holiday Fund is unlike anything we have ever heard of. Not that we are inexperienced in this matter of fund drives, but we have never before encountered an effort such as this at China Lake. Like Topsy, it has apparently just grown over the years.

There is no publicity or advance appeals; no meetings with including metallo organic. Well co-operating groups and individuals; no follow-up pleas. Yet the equipped laboratory; supervisor program moves along like clock works. It is an amazing demonstration of spontaneous goodness.

It involves almost every segment of the community - Scouts, a rug club, a veteran's organization, school children, VX-5 and NAF sailors, churches, a secretary in Officer Records, and Transportation, an envelope containing cash with no name given, a department at Mich Lab., and many, many others conspired to make the Chaplain's Fund the largest it has probably ever been before.

Though it is a shot-in-the-dark estimation, we believe that more than a thousand dollars worth of groceries were distributed. More than \$300 was disbursed.

More than twenty families in this community thank you from the bottom of their hearts.

The Rocketeer

Official Weekly Publication

of the

hina Lake, California

Captain Charles Blenman, Jr., USN

"J." "T." Bibby

Jack G. Broward

Richard Grueneberg

Managing Editor

Budd Gott

Associate Editor

Chuck Mangold

Special Services Athletic Director

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Housing Bldg. 35. Phones - 71354, 71655,

U. S. Naval Ordnance Test Station



Morning Service—11 a.m. Sunday School—9:30 a.m. Nursery facilities available Protestant: (All Faith Chapel) Morning Worship-9:45 and 11 a.m. Sunday School-9:30 a.m., Groves and Richmond elementary schools. Roman Catholic: (All Faith Chapel)

Holy Mass-7, 8:30 a.m. and 4:45 p.m. 6 a.m. Monday through Friday, 8:30 a.m

Confessions-8 to 8:25 a.m., 7 to 8:30 p.m Saturday. Thursday before First Friday-

NOTS Hebrew Services: (East Wing All Faith Chapel)

4 to 5:30 p.m.

Sunday School-9:30 a.m.

weekly with appropriated funds in compliance Every first and third Friday, 8:15 p.m. Sabbath School every Saturday morning Unitarians: (Parish Hall) Fellowship Meeting-Sundays, 7:30 p.m.

OPPORTUNITIES

PROMOTIONAL

Present Station Employees are encouraged to apply for the positions listed below. Applications should be accompanied by an upto-date Form 58. The fact that positions are advertised here does not preclude the use of other means to fill these vacan-

Engineering Technician, GS-9 or GS-11, PD 155019-2, Code 55524 — Technician with electronics experience to work on preparing documentation and changes for BuWeps release. Will work with Station contractors and be responsible for technical and documentary interpre-

Clerk-Typist, GS-4, Code 5502 -Vacancy for clerk-typist to perform duties for Head of Staff, and Associate Head of Staff, act as recorder for Beneficial Suggestion Committee, prepare reports and perform miscellaneous clerical functions.

Clerk-DMT, GS-4, PD 250096, Code 501 — Prepares correspondence and technical reports, acts as office receptionist and performs miscellaneous clericalsecretarial duties.

Research Physicist, GS-9, 11, 12 or 13, Code 5008 - Investigator will study the mechanisms of steady state and transient combustion of solid propellants. Grade of position to be determined upon evaluation of the qualifications and scientific experience of the successful appli-

Research Physicist or Research Mechanical Engineer, GS-9, 11, 12 or 13, Code 5008 — Investigator will study gas dynamics as related to nozzle and combustion chamber flow, with particular emphasis on jet deflection and on flow in hybrid rocket combustion. Grade of position to be determined upon evaluation of the qualifications and scientific experience of the successful appli-

Chemist (Organic) or Chemist (Polymer), GS-9, Code 5557 -Vacancy exists for applicants experienced or interested in the synthesis, development and/or research in new resing systems experienced in plastics.

File Application for above positions with Pat Dettling, Room 31, Phone 71393. Deadline Date for Applications is Jan. 25.

Electrician, Per Diem \$3.13-3.39, Code 3025 - Receipt and installation of electrical components required to conduct the experimental test firings on the Ground Ranges. This includes the operations, maintenance and modification of an electrical fire control system.

Firefighter, GS-3 or 4, Code 842 — Incumbent performs inspection of firefighting apparatus, buildings, and areas as well as general firefighting duties and training.

File applications for above positions with Jinny Millett, Room 34, Phone 72032. Deadline date for application is Jan. 25. Training Instructor (Machin-

ist), GS-7 or GS-9, Code 6543 -Include teaching machinist apprentices trade theory and drafting, organizing and scheduling machinist apprentice shop rotation assignments, and coordinating journeyman training courses in the machinist area. Outstanding journeyman model makers,

machinists, tool makers will be considered. File application for above position with Mary Watts, Room 28, Phone 72723. Deadline date for application: Closing date extended until 11:30 a.m., Jan. 22.

'DESERT PHILOSOPHER'

Why Lost Mines Are Lost

It's very simple. The finder couldn't remember where he was when he found it. That is not surprising.

It is surprising and confusing how the same canvon or mountain can look so different at different times of day - different shadows. Bright sunlight or an overcast sky makes a big difference. The same hill or canyon can be unrecognizable from different directions.

Conversely — it is surprising and confusing to the untrained observer how many hills and canyons can look alike from a distance or close up.

So, boondockers, when you discover a place you want to come back to - like a gem stone outcropping or gold bearing quartz or trees or landscape you want to photograph or paint be sure to tie it in with many different points. At the time it seems so easy - you think, "I can't forget this place." But you sure as heck can.

With all my previous experience I used to get confused some times when I first started patroling the north ranges of the Base -careless-before I learned to be ver yspecific about tying in a certain location with accurate observations.

I would see a bomb or rocket or unexploded artillery shell. It was my job to direct an Ordnance Recovery expert to the spot. A day or two later I would sometimes have a heck of a time finding it. At a different time of day it was sometimes a bit of a problem.

So I learned to use my compass and be meticulous in my observations. Looking for odd rock formations or a unique, crooked tree for guidance I discovered that most of the trees and odd rock formations looked very much alike. The greater the time lapse before going back, the more confusing. And so I learned,

Getting back to lost mines. Most of the old-time discoverers of mines who got lost didn't have a compass. One strike against them. They were unfamiliar with the area — two strikes.

Take Goler for example. Goler Wash was named after him. The lower end is definitely a canyon. (Parenthetically — Christmas Canyon is a shallow wash. Darum Wash is a deep canyon. Careless in naming.) Goler came to town with a pocket full of gold nuggetts. The real stuff. No bull. And then he got sick. Some years later he went back to relocate his discovery. He couldn't find it. It would have been difficult even the next day. But this was years later. He said he found the nuggets in a talus deposit at the foot of a steep slope in a canyon.

Rains, flash floods and earthquakes could obliterate the spot. He thought he was in what is now known as Goler Wash. It is quite probable that he wasn't in Goler Wash.

For example, from Goler Wash (Canyon) to the north some 25 air miles - to Tuber Canyon, there are 12 prominent canyons on the west side of the Panamint Range, ie; Goler Wash, Coyote Canyon, Redlands Canyon, Big Horn Canyon, South Park Canyon, Millde Park Canyon, Pleasant Canyon, Happy Canyon, Surprise Canyon, Hall Canyon, Jail Canyon and Tuber Canyon.

Looking up from Panamint Valley, it is rather difficult to identify a specific canyon. They all look somewhat alike to the untrained observer.

So it is quite possible that Goler was confused. He could have been confused a week later — but years later!!!! He might have been in any one of those other eleven

So, boondockers, with this information, go out and find it.

All you have to do is work those 12 canvons and look for a talus deposit with gold nuggets in it at the bottom of a steep slope at the side of one of those canyons.

Be sure to tie it in the location to many points - so you can go back to it.

That's a nice way to get rich, discovering new wealth from Mother Nature - while enjoying healthful exercise in the beautiful outdoors.

Shouldn't I get a cut for telling you where to find it? If two of you find it at the same time - just split it - don't

More about lost mines later.

STATION HOSPITAL

MORRISSEY, Matthew Blaine, 8 lbs., 31/2 oz., born to Mr. and Mrs. Harland C. Morrissey, HMCA, of 406-A McIntire on

WHITTINGTON, Sharon Lynn, 7 lbs., 14 oz., born to Mr. and Mrs. Gene A. Whittington, ABE1, of 107 Nadeau, Ridgecrest. Jan. 9

OBERST, Gregory Pearce, 7 lbs., 71/2 oz., born to Mr. and Mrs. Alan P. Oberst, AQ2, of 334 Segundo, Ridgecrest on Jan. 12. RIDDELL, Shirley LaVon, 7 lbs., 141/2 oz., born to Mr. and Mrs. John J. Riddell, AN, of Trona on Jan. 13.

WHISENHUNT, Gary Alan, 8 lbs., 4 oz., born to Cpl. and Mrs. Marvin A. Whisenhunt of 1303-A Burke Rd., on Jan. 14.

Quote of the Week

"This is a violent sport. To play in this league, you've got to be tough physically tough and mentally tough."-Vince Lombardi, coach of the National Football League's Green Bay Packers.



Propulsion Dept. Men Win 20-Year Pins



260 YEARS OF SERVICE-Thirteen employees of the Propulsion Development Department have rolled up an impressive record of 260 years of Federal service. Twenty year men, front row (I-r) are: Jerome P. Madden, Cecil Hunter

Friday, January 18, 1963

Sr., John Christy, Billy W. Cox, Harold R. Shingleton, and H. Powell Jenkins. Back row (I-r) are: Albert P. Holbert, Richard M. Joyce, Dura W. Pinkerton, John Gonzalez, Charles J. Bliss, Arthur J. Arsenault Jr., and Basil Young.

Reenlistment **Bonus Status** Explained

A reenlistment bonus is payable to a member of the regular Navy who voluntarily extends his enlistment for a period of two or more years, but no bonus is payable for a first extension of one year.

However, upon a second extension of one year, the two extensions will be taken together so as to constitute one extension, thereby entitling the member to a bonus for two years.

When a member has been paid a bonus for an extension of two or more years and subsequently reextends for one or two years, the reextension will be combined with the first extension and the bonus recomputed accordingly. Extensions and reextensions of

the same enlistment may not total more than four years



TO MAKE NAVY CAREER - LCdr. P. F. Mohr administers the reenlistment oath to Charles H. Neal, dental technician second class, assigned to the Station Hospital. A graduate of Class "A" Dental Technicians School, San Diego, Neal intends to make the

Navy his career. He goes to Class "B" Dental Technicians School at Bethesda, Md., in July. Married to the former Lillian Liner of Memphis, Tenn., he and his wife and children, Debra, 3, and Charles H., 1, live at



MARINES PROMOTED - Commanding Officer of the Marine Barracks Mai. Maurice Rose (left) presents five men with promotions. Advancing in rank (I-r) are: Joye P. Pugh to Lance Corporal, William L. Barbe

and Jackson D. Way to Corporals, Wilbert C. Vyse and David H. Whittredge to Lance Corporals. Not shown is John K. Carlisle who was also promoted to Lance Corporal. Presentation was made last week.

Community News

Marilyn Horne, soprano, will sing a Bach cantata with the Los Angeles String Society under the baton of Henry Lewis, Monday evening at 8:15 p.m. for the second concert of the NOTS Civic Concert Association Season.

Miss Horne is a close friend of Stravinsky, whose songs she has recorded, and she was personally chosen by the great composer to be soloist at the Stravinsky Festivals in Venice

A limited number of single seats will be available for the concert, according to Jack Bain, ticket manager. Persons wishing to arrange for tickets in advance may call NOTS Ext. 724231. Two tickets in the \$12.00

section are available at \$4.50

each; scattered single seats in the \$10.00 section are available at \$3.75 each and 25 tickets in the \$8.00, at \$3.00. The box office will open at

7:00 p.m. on Monday.



Marilyn Horne, soprano.

"MARDI GRAS" SCHEDULED

Officers and wives of the Technical Department started the "ball" rolling this week with the announcement of a "Mardi Gras" ball to be held Saturday, Feb. 16, at the Commissioned Officers Mess (Open).

Virginia Ritter, publicity chairman, said the event would be held with an "Arabian Nights" theme.

Efforts are currently being made to contact a "name" band for dancing during the evening program, which is to include dinner and a floor show. Hollywood sets used in filming Arabian scenes will be used in the local settting for the evening's festivities, according to the decorations committee.

Currently engaged in the season's first social event are the following committee members: Cdr. Hoppe, Chairman; Charlotte and Bob Walker, Decorations; Lt. Cdr. Ellefson, Tickets and Reservations: Lt. Col. Clark, USAF, and Lt. Col. Ritter, USMC, Entertainment; and Mrs. Holmquist, Choreography.

UNITED CHURCH WOMEN

The United Church Women will hold their Annual Meeting on Friday, Jan. 25, at St. Michael's Episcopal Church, Drummond Drive at Sanders St., Ridgecrest. This meeting will depart radically from the usual "annual meeting" and promises to be and experience no woman of the Indian Wells Valley shouul miss. A luncheon will be served for \$1.00, beginning at 12 noon, and will be followed by a short talk by the UCW State Spiritual Life Chairman, Mrs. Vincent Coletta. The meeting will conclude by 1:30. Free baby sitting will be provided at the church. Reservations may be made by calling 77364.

CPO WIVES CLUB

The CPO Wives Club is planning a luncheon at the Hideaway for Wednesday, Jan. 23rd. Reservations are to be made with Vada Dobbins no later than January 21.

Newcomer Mrs. Wayne Cassel joined our club at the last meeting. We were happy to have two guest speakers, J. C. Stratton, CSCM and S. Ruffin, CSCA, who came to us from the Navy Ships Store Officers, West Coast Branch, Oakland, Calif. They spoke to us on Commissary matters.

A lovely crystal punch bowl set was presented to the club through Carmen Davis from Dixie Shanahan who has just left China Lake and the club.

LECTURE-FILM ON TELESTAR

W. W. Nestler, General Engineering Supervisor of The Pacific Telephone and Telegraph Co., Los Angeles, will show films and tell some of the research and engineering behind the Bell System's TELSTAR experiment, at the Community Center on Thursday, Jan. 24, at 8 p.m. He will describe some of the more ususual features of the "bird" and its companion ground station at Andover, Me.

by calling FR 5-2348.

during the week of 28 January.

tion procedure.

BAKERSFIELD COLLEGE EVENING DIVISION

1 1 4 a of 8 a a a little a little a little a little Bakersfield College Evening Division, China Lake, offers a variety of courses, many of which are appropriate for those employees interested in evening class

opportunities. Listed below are the Spring Semester

Courses. Counseling appointments may be obtained

Registration for these classes will begin on January 23rd and continue through the 25th. On the 23rd and 24th, registration will be conducted in the College Library from 5-8 PM. On the 25th registration will be from 8 AM to 5 PM in the College Office, at the Burroughs High School Campus. Registration on these dates is important to insure a class size sufficient to hold the course. It is possible to register on the first day of class only if the particular class has had sufficient pre-enrollment to form. The semester begins

SCHEDULE OF CLASSES, SPRING 1963

Please Note: Do not enroll in a class unless you have the prerequisites.

* Classes so marked are adult classes and may be taken without credit. All other classes are graded classes and must be taken for credit.

BUSINESS EDUCATION **Business Administration-**Business Administration 1B - Principles of Accounting Monday and Wednesday, January 28, 8-10 p.m. Room 12, Mr. Toombs - 3 units

(Prerequisite: Business Adm. 1A) Business (General) Business 52 - Introduction to Business

Monday and Wednesday, January 28, 6:30-7:53 p.m. Room 12, Mr. Toombs - 3 units HUMANITIES Art 4A - Basic Painting

Tuesday and Thursday, January 29, 7-10 p.m. Room GO 1, Mrs. Williams — 3 units (Prerequisite: Art 2 or Art 3) Art 5A - Introduction to Oil Painting Monday and Wednesday, January 28, 7-10 p.m. Room GO 1 - 2 units (Prerequisite: Art 2 or Art 3)

Drama 27 — Theatre Laboratory Acting, Production and Management (9 weeks of instruction) Friday, February 1, 7-10 p.m. and 4 hours by arrangement Room 16, Mr. Lawson - 1 unit (Prerequisite: Consent of instructor)

English-English XA Monday and Wednesday, January 28, 6:30-7:53 p.m. Room 17, Mrs. Sand - 3 units (Prerequisite: English Classification Test)

English XB Tuesday and Thursday, January 29, 8-9:23 p.m. Room 17, Mrs. Sand - 3 units

(Prerequisite: English Classification Test or a Grade of "C" or higher in English XA)

Monday, Wednesday, and Thursday, January 28, 3-4 p.m. Room 16, Mr. Lawson - 3 units

CHINA LAKE

English 1A Tuesday and Thursday, January 29, 5-6:23 p.m. Room 16, Mr. Lawson - 3 units (Prerequisite: English Classification Test or a Grade of "C" or higher in English XB)

Tuesday and Thursday, Jan. 29, 6:30-7:53 p.m. Room 16, Mr. Lawson - 3 units (Prerequisite: English 1A)

English 5B - Survey of English Literature Tuesday and Thursday, January 29, 6:30-7:53 p.m. Room 17, Mrs. Sand - 3 units (Prerequisite: English 5A)

English 51B — Language Skills Monday and Wednesday, January 28, 8-9:23 p.m. Room 16, Mr. Lawson - 3 units (Prerequisite: English 51A)

FOREIGN LANGUARE Spanish 2 — Elementary Spanish Tuesday and Thursday, January 29, 6:30-9 p.m. (Prerequisite: Two years of High School Spanish or Spanish 1)

JOURNALISM Journalism 10A — Elementary Newspaper Practice Tuesday and Thursday, January 29, 8-10 p.m. Room 10 on Tuesday and Room 11 on Thursday Mr. Lawson - 2 units

Speech 51 — Business Speech Monday and Wednesday, January 28, 6:30-7:53 p.m. Room 16, Mr. Lawson - 3 units

Mathematics A — Elementary Algebra Monday and Wednesday, January 28, 5-7:23 p.m. Room 25, Mr. Ewing - 3 units

Mathematics D — Intermediate Algebra Tuesday and Thursday, January 29, 8-9:23 p.m. Room 25, Mr. Ewing - 3 units (Prerequisite: One year of High School Algebra or Math A)

Mathematics 3B - Analytic Geometry and Calculus II Tuesday and Thursday, January 28, 5-6:23 p.m. (Prerequisite: A grade of "C" or higher in Math 3A)

Mathematics 53B - Elementary Technical Mathematics Monday and Wednesday, January 28, 7:30-8:53 p.m. Room 25, Mr. Ewing - 3 units (Prerequisite: Math 53A)

Mathematics 54 - Industrial Mathematics Tuesday and Thursday, January 29, 6:30-7:53 p.m. Room 25, Mr. Ewing - 3 units

NATURAL SCIENCE — LIFE SCIENCE Life Science 11B - Introduction to Life Science Monday and Wednesday, January 28, 6:30-9 p.m. Room 29A, Mr. Draper - 3 units (Prerequisite: Life Science II2)

NATURAL SCIENCE - PHYSICAL SCIENCE Chemistry 2A - Introduction General Chemistry Monday and Wednesday, January 28, 5:30-10 p.m. Room 29L, Miss Der - 5 units (Prerequisite: Math A or High School Algebra)

Physics 1B - Wave Motion and Heat Tuesday and Thursday, January 29, 6:30-9:30 p.m. Room 39L, Mr. Rue - 3 units (Prerequisite: English Classification Test or a Grade of "C" or (Prerequisites: Physics 1A, and concurrent registration in higher in English XB)

Physics 60B — Technical Physics Monday and Wednesday, January 28, 6:30-9:30 p.m. Room 39L. Mr. Rue - 4 units (Prerequisite: Physics 60A)

Nursing (General)-

PHYSICAL EDUCATION

Nursing 71A - Intermediate Pharmacology Thursday, January 31, 7:30-9:30 p.m. Room 27, Miss Cafferty - 1 unit (Prerequisites: Completion of an Approved Pharmacology Course and Licensure as an LVN or RN)

Friday, January 18, 1963

Health Educatio Health Education 1 — Principles of Health Education Thursday, January 31, 8-20 p.m. Room 37, Mr. White - 2 units Physical Education 1T — Team Sports for Men

Monday and Wednesday, January 28, 6:30-7:30 p.m. Gym. Mr. Henderson - 1/2 unit Physical Education 1T — Team sports for Women

Tuesday and Thursday, January 29, 7:30-7:30 p.m. Gym, Miss Stolz - 1/2 unit Physical Education 31A — Standard Red Cross First Aid Tuesday, January 29, 8-10 p.m.

Room 37, Mr. White - 1 unit (18 hours of instruction) SOCIAL SCIENCE

History 4B - Western Europe Ionday and Wednesday, January 28, 6:30-7:53 p.m. Room 15, Mr. Allen - 3 units History 8B - History of the Americas

Monday and Wednesday, January 28, 8-9:30 p.m.

Room 15, Mr. Allen - 3 units

History 17B - History of the United States Tuesday and Thursday, January 29, 5-6:23 p.m. Room 15 Mr. Allen - 3 units (Prerequisites: A qualifying score on a college aptitute test or

Political Science-Political Scienc 1 - American Government Monday and Wednesday, January 28, 5-6:23 p.m. Room 15, Mr. Allen - 3 units

"C" or higher in Social Science 53A)

Psychology-Psychology 33 - Personal and Social Adjustment Monday and Wednesday, January 28, 5-6:23 p.m. Room 27, Mrs. Besser - 3 units (Prerequisite: Psychology 1A)

Psychology 51 - Applied Psychology Monday and Wednesday, January 28, 6:30-7:53 p.m. Room 27, Mrs. Besser - 3 units

Social Science 53B — Introduction to Social Science Tuesday and Thursday, January 29, 6:30-7:53 p.m. Room 15. Mr. Allen - 3 units

TECHNICAL EDUCATION Industrial Drawing 30B — Industrial Drawing Monday and Wednesday, January 28, 7-10 p.m. Room GO2, Mr. Drow - 3 units (Prerequisite: Industrial Drawing 30A or one year of High School Mechanical Drawing)

Mathematics 53B-See Mathematics Section Mathmatics 54 - See Mathematics Section

Physics 60B - See Natural Science Section

students to complete 6 units of course work every semester until they have fulfilled the unit requirements for the M.S. Students who wish to secure relief from this regulation should complete "Petition for Waiver of the Minimum Unit Requirement" immediately, in order that the Assistant Dean, Graduate Studies in Engineering, can review and act upon the petition prior to the commencement of the spring semester.

GENERAL INFORMATION

REGISTRATION. Registration for the UCLA on-Sta-

tion spring semester program will be conducted in

the Education Office, room 1004 Michelson Laboratory,

from 9:00 a.m. to 1:00 p.m. each working day from

21 January through 1 February 1963. Early enrollment

is encouraged as a means of speeding up the registra-

GRADUATE STUDENTS IN ENGINEERING. The De-

partment of Engineering, UCLA, requires all graduate

USE OF OFFICIAL TIME. Employees who enroll in 6 or more units of academic work in the UCLA Program may request permission to utilize official work time for study in an amount not to exceed 6 hours per week for 15 weeks. Such requests are subject to whatever approval procedures the various departments may establish, and they must bear the certification of the supervisor that the training is relevant to the present or projected responsibility of the employee. Employees may not establish tuition refund eligibility in courses for which they are utilizing official work time; however, an employee authorized the use of no more than 3 hours of official time for one 3-unit course may establish eligibility for a tuition refund for a second 3-unit course.

TUITION REFUND ELIGIBILITY. To establish eligibility for a tuition refund at the completion of a UCLA course an employee must secure the certification of his supervisor that the training is relevant to present or projected work assignments. The required certification can be accomplished by completing NOTS Course Enrollment Form and/or Tuition Certification 11ND-NOTS-12410/28 and presenting it to the Education Office. This form should be submitted at the time of registration or prior to the first class meeting, whichever is earlier. Under no circumstances can the Education Office accept a certification form dated subsequent to the first meeting of the class for which the employee seeks to establish eligibility for a refund.

rollment. The fee for each course is listed after the course number and title

REFUNDS. Refunds of registration fees are granted to students who withdraw prior to the fourth class meeting and to eligible employees who complete courses successfully. The conditions are as follows:

dent may request a full refund by presenting his enrollment card to the Education Office. After the second meeting of the class and before the fourth meeting, a student may request and receive a refund from which \$5.00 has been withheld, provided that he has attended no more than two class meetings. No refunds will be made after the fourth meeting of the class, regardless of attendance. The processing of such refunds requires a minimum of thirty days.

better), a full refund will be made to an eligible employee, i.e., one whose certification form has been filed with the Education Office and who has not utilized official time for his course work. The processing of such refunds requires approximately ninety days.

WITHDRAWALS AND AUDITING. The last day for graduate students to drop courses from study lists without penalty of grade F (failure) is 15 April 1963. Petition forms are available in the Education Office. The last day for extension students to decide whether to take a course "not for credit" is the date of the first meeting after the mid-term examination. The instructor will request each student to indicate his desired status by placing his initials in the proper space on the midterm grade report. Graduate students who have dropped a course and extension students who have signified their intention of taking a course not for credit may continue to attend class meetings without the obligaion of submitting homework or taking examinations

TEXTBOOKS. Each student must be responsible for purchasing his own book. Order blanks will be available in the Education Office before and during the registration period. It is advisable for students to order their books early to insure receipt before the beginning of classes.

FACULTY. The spring semester faculty is set forth

Course Schedule - Spring 1963

- University of California at Los Angeles Journeyman and Technician Develop- University of Southern California
- Professional Day Classes
- Supervisor and Executive Development
- ment Program
- Clerical Development Program Specialized Training Program
- Bakersfield College, Evening Division
- Burroughs Evening High School

U.C.L.A. CLASSES

Weapons Development Department

Walter E. Bickford, MSW Director, Desert Area Family Melville C. Creusere, M.S. Head, Armament Controls Systems Branch, Aviation Ordnance Dept. Edward A. Fay, Ph.D. Mathematician, Research Dept. Czerna A. Flanagan, M.A. Mathematician, Research Dept Albin A. Fojt, M.A. Physicist, Weapons Development Dept. Marvin D. Horton, Ph.D. ... Chemical Engineer, Research Dept. Instructor in Russian. Elena B. Khahre ... Thomas A. Milburn, Ph.D. Head, Behavioral Sciences Group John Pearson, M.S. Head, Detonation Physics Group, Research Department Gilbert J. Plain, Ph.D. Associate Head, Research Dept. Raymond E. Smithson, Ph.D. ... Mathematician, Research Dept. Ray W. Van Aken, M.S. Head, Aerothermodynamics Branch,

M. Pat Wennekens, Ph.D. Oceanographer, Research Dept. PREREQUISITES. The titles of courses listed as prerequisites for the various courses in the Extension and Graduate Programs are as follows:

raduate Frograms are as ronows.
Engineering 100A
Engineering 105A Engineering Thermodynamic
Engineering 108B Strength of Material
Engineering 183A Probability and Stochastic Processe
for Engineer
Mathematics 122A
Mathematics 135
Mathematics 209A Real Analysi
Physics 1ABCD
Physics 124A
Russian 800A-B-C Scientific Russian

SCHEDULE. The following courses have been scheduled for the spring semester of 1963:

EXTENSION PROGRAM

Courses listed below are open to all students who satisfy the prerequisites. Starred (*) courses may, by subsequent petition, be offered toward the satisfaction of the unit requirements for the master's degree up to a maximum of 9 units.

Engineering XL 105B, Engineering Thermodynamics (3 units -

Instructor: Mr. Horton Monday, Wednesday: 4:30-6 p.m.; Michelson Laboratory 1017 30 meetings, beginning 28 January, ending 8 May Text: To be announced

Energy conduction, convection, and radiation, Statistical thermodynamics. Calculations of thermodynamic functions for simple molecular models. Calculations of changes in thermodynamic functions. Third law of thermodynamics. Law of corresponding states. Clapeyron's equation. Chemical equilibrium. Phase rule. Adiabatic reaction temperatures. Electrochemical cells,

Engineering *XL 111A, Basic Magnetics (3 units - \$45.00) Instructor: Mr. Creusere Monday, Wednesday; 4:30-6 p.m.; Michelson Laboratory 1011

30 meetings, beginning 28 January, ending 8 May Text: To be announced

Prerequisite: Engineering 100A Fundamentals of modern magnetic theory and materials; mag-

netic circuit, development of energy, force, and circuit relations; characteristics of magnetic and permanent magnet materials; analysis of static electromagnetic systems such as transformers and magnetic amplifiers, emphasizing the static magnetic

Engineering *XL 198, Advanced Strength of Materials (3 units-\$45,00) Instructor: Mr. Pearson

Monday, Wednesday; 4:30-6 p.m.; Michelson Laboratory 20108 30 meetings, beginning 28 January, ending 8 May Prerequisite: Engineering 108B

Text: Timoshenko, Strength of Materials, Volumes I and II (Van Nostrand, third edition) A study of statically indeterminate structures (beams, frames,

curved bars, rings, arches, composites) by series expansions, superposition methods, energy methods, least work, influence coefficients; bending of beams and plates; combined stresses; membrane analogy for torsion; stresses in thick-walled and multilayered vessels; introduction to mathematical theory of

Engineering *XL 198, Theory of Stochastic Processes (3 units-Instructor: Mr. Fay

Tuesday, Thursday; 4:30-6 p.m.; Michelson Laboratory 1011 30 meetings, beginning 29 January, ending 9 May Prerequisite: Engineering 183A or equivalent Text: Parzen, Stochastic Processes (Holden-Day, 1962)

Random variables and stochastic processes. Conditional probability and conditional expectation. Normal and covariance stationary processes. Counting and Poisson processes. Renewal theory. Discrete- and continuous-parameter Markov chains.

units - \$45.00) Instructor: Mr. Foit

Tuesday, Thursday; 6:30-8 p.m.; Michelson Laboratory 1017 30 meetings, beginning 29 January, ending 9 May Prerequisite: Mathematics 135

Text: Hildebrand, Introduction to Numerical Analysis (McGraw-

Polynomial approximation of functions of one or more variables in the sense of least squares. Orthogonal polynomials. Continued fractions and rational approximation. Approximation by other function families. Gaussian quadrature. Emphasis throughout on numerical methods for use with automatic digital com-

Oceanography X 102ABC, Waves, Tides, and Currents (3 units-

Instructor: Mr. Wennekens Monday, 6:30-9 p.m.; Michelson Laboratory 1017

18 meetings, beginning 28 January, ending 27 May Text: Von Arx, Introduction to Physical Oceanography (Addison-Wesley) Dynamics of ocean currents. Water masses and circulation of

the oceans. Generation and propagation of surface and internal waves. Surf and shoreline processes. Tsunamis. Tide generating forces. Tidal prediction.

Physics *XL 107, Electrical Theory and Measurement (2 units-

Instructor: Mr. Plain Monday, 4:30-6:30 p.m.; Michelson Laboratory 1000 15 meetings, beginning 28 January, ending 6 May Text: Ticho, Electrical Circuit Theory and Elementary Electronics (UCLA)

Prerequisite: Physics 1ABCD Lectures on direct and alternating current theory and measurements, and on introductory electronics.

Physics *XL 124B, Nuclear Physics (3 units - \$45.00) Tuesday, Thursday; 4:30-6 p.m.; Michelson Laboratory 20108 30 meetings, beginning 29 January, ending 9 May

Prerequisite: Physics 124A Text: Halliday, Introduction to Nuclear Physics (Wiley) Elements of wave mechanics, two nucleon systems, theory of alpha decay, nuclear forces, nuclear spin and magnetism, nulear models, cosmic rays and subnuclear particles

Psychology 400ABC, Interviewing and Counseling Techniques (3 units - \$40.00) Instructors: Mr. Milburn and Mr. Bickford Monday, 7-9:30 p.m.; Michelson Laboratory 10

18 meetings, beginning 28 January, ending 27 May Text: To be announced Emphasis on techniques and principles of interviewing and

simple counseling. Lectures and classroom practice.

Russian 800D-E-F, Scientific Russian (no unit credit - \$45.00) Instructor: Mrs. Klahre Tuesday, Thursday; 6:30-8:30 p.m.; Michelson Laboratory 1011 30 meetings, beginning 29 January, ending 9 May

Prerequisite: Russian 800A-B-C Text: To be announced . Continuation of Russian 800A-B-C

GRADUATE PROGRAM

The 100 series courses listed below are open to all students who have graduate status at the University of California at Los Angeles. Courses in the 200 series are generally open only to graduate students who have rectified all grade-point deficiencies.

Engineering 111A, Basic Magnetics Same as Engineering XL 111A

Engineering 198, Advanced Strength of Materials Same as Engineering XL 198

Engineering 198, Theory of Stochastic Processes Same as Engineering XL 198

Engineering 221A, Gas Dynamics (3 units - \$45.00) Instructor: Mr. Van Aken Tuesday, Thursday; 6:30-8 p.m.; Michelson Laboratory 20108 30 meetings, beginning 29 January, ending 9 May

Prerequisite: Consent of instructor Text: Leipmann and Roshko, Elements of Gas Dynamics (Wiley) Review of thermodynamics, wave and shock motion in unsteady one-dimensional and steady two-and three-dimensional flows small perturbation theory for wings and bodies, similiarity rules, characteristic theory, effects of viscosity and conductivity.

Engineering 299, Research in Engineering (1 unit — \$20.00) Instructor, time and place to be arranged Investigation of advanced technical problems.

Mathematics 122B, Advanced Calculus Mathematics 138, Numerical Methods of Approximation

Same as Mathematics XL 138 Mathematics 209B, Real Analysis (3 units - \$45.00) Instructor: Mr. Smithson

Tuesday, Thursday; 4:30-6 p.m.; Michelson Laboratory 1017 30 meetings, beginning 29 January, ending 9 May Prerequisite: Mathematics 209A

Text: Munroe, Introduction to Measure and Integration (Addison-Wesley Point-set topology in Euclidean space. More general spaces.

Continuous functions. Convergence and approximation theorems. Functions of bounded variation. Integrals and measures. Multiple integrals and the Fubini theorem. Absolutely continuous functions. Set functions. Differentiation and integration.

who do not have access to Michelson Laboratory should register on or before 24 January 1963 in order that the paper work required to admit them to the classrooms may be completed before the beginning of the semester. Students who find it inconvenient to complete registration by 24 January may notify the Education Office by telephone or letter of their intention to register. Such notification must include full name, mailing address, citizenship, and the name of the course in which the student wishes to enroll. No uncleared student will be admitted to the Michelson Laboratory classrooms unless his registration or notice of intent to register is received in the Education Office by 24 January.

Geology X 151ABC, Igneous Petrology (3 units-\$45.00) Instructor: Mr. Austin Tuesday, 6:30-9:30 p.m.; Michelson Laboratory 1000 15 meetings, beginning 29 January, ending 7 May Text: To be announced The origin of igneous rocks, including the formation of igneous minerals, igneous mineral structures and stabilities, the interaction between igneous rocks and their hosts, and description ACCESS TO MICHELSON LABORATORY. Students and theories of genesis of the major igneous rock assemblages. Mathematics *XL 122B, Advanced Calculus (3 units - \$45.00) Instructor: Miss Flanagan Monday, Wednesday; 4:30-6 p.m.; Michelson Laboratory 1007 30 meetings, beginning 30 January, ending 13 May Prerequisite: Mathematics 122A Text: Taylor, Advanced Calculus (Ginn & Co.) Point set theory; theory of Riemann integration; infinite series; uniform convergence; improper integrals; complex functions; Fourier series and integrals. Mathematics *XL 138, Numerical Methods of Approximation (3

FEES. Registration fees are payable at the time of en-

a. Prior to the second meeting of the class, a stu-

b. Upon successful completion (a grade of C or

Carl F. Austin, Ph.D. Geologist, Research Department

BURROUGHS EVENING HIGH SCHOOL Burroughs Evening High School offers a variety of CIVICS

courses, many of which are appropriate for employees interested in evening class opportunities. Listed below are the Spring Semester Classes. Counseling appointments may be obtained by calling 72019. Registration for these classes will be from January 4. 6:30-8:30 p.m. on the Burroughs High School Campus. Registration on these dates is important to insure a

semester begins during the week of 28 January. All classes will meet on the Burroughs High School campus unless otherwise indicated. T. B. indicates Training Building, which is located at 91 Halsey on

class size sufficient to hold the course. It is possible

to register on the first day of class, if the particular

class has had sufficient pre-enrollment to form. The

the Station. ALGEBRA 1. First Semester Wednesday 7-10 - Room 24 - Bartlett

ALGEBRA 2, Second Semester

Monday 7-10 - Room 37 - Verry ARITHMETIC REVIEW Monday 7-10 - Room 22 - Stokes A study of arithmetic fundamentals. Recommended as prepara-

tion for Civil Service Examination. Monday 7-10 - TB 211 - Breitenstein For students who completed the fall semester class or its

ART 4, Fourth Semester Thursday 7-10 - TB 211 - Breitenstein For students who completed Art 3 or equivalent.

ASTRONOMICAL INSTRUMENT DESIGN Tuesday 7-10 — Michelson Lab. — Bevis For special information call Don Bevis 71588.

BOOKKEEPING 2 Tuesday 7-10 - Room 12 - Toombs Prerequisite: Bookkeeping 1 or one semester of high school bookkeeping.

Wednesday 7-10 - Room 14 - Vines

Tuesday 7-10 - TB 107 - Whitfield

Preparatory course for Electronics.

Fundamentals of electricity. Direct and alternating currents, cir-ELECTRONICS 1. Beginning Monday and Wednesday 4:30-6:00 - TB 107 - Iwamura

Prerequisite: One year of high school algebra, plane geometry, basic electricity. Students may be admitted with consent of instructor if he feels they are qualified.

Thursday 7-10 - Room 14 - Vines For students who need a semester of English in order to complete graduation requirements.

ENGLISH FOR FOREIGN BORN Thursday 7-10 - Room 13 - Cierley All students welcome without regard to ability with the English

ENGLISH REVIEW

Tuesday 7-10 — Room 13 — Rizer English language fundamentals. Recommended as preparation for Civil Service examination. May be used to meet high school graduation requirements.

EXPECTANT AND NEW PARENTS Wednesday 7-9 — Red Cross Bldg. — Stone Preparation for parenthood. It is recommended that both husband and wife enroll. Six sessions.

Monday 7-10 - Room 23 - Butler Study of physical, economic and political aspects of important world areas. Influences of geography on world problems and

GERMAN 1, Beginning Wednesday 7-10 - Room 23 - Grober A class for beginners. Persons who have previously studied

German and wish to review are welcome. HISTORY, UNITED STATES 2 Tuesday 7-10 - Room 23 - Grober

One year of U.S. History is a California requirement for high

INTERIOR DECORATION Monday 7-10 - Room 18B - Lote MATHEMATICS, Industrial, Beginning

Application of mathematics to shop problems, Review of arithmetic and fundamental operation of algebra and trigonometry.

Thursday 7-10 - TB 107 - McNeill A basic course. Preparation of working drawings, preliminary sketches and views. Practice in reading blueprints.

MECHANICAL DRAWING AND BLUEPRINT READING

NEEDLECRAFTS Wednesday 7-10 - Room 22 - E. French SEWING 1 - Beginning

Thursday 7-10 - Room 18B - E. French

Tuesday 12:30-3:30 p.m. - Parish Hall - E. French

SEWING 2 - Intermediate Tuesday 7-10 - Room 18B - Lotee

SEWING 3 - Tailoring Wednesday 7-10 - Room 18B - Lotee SHORTHAND 2 - Green Tuesday 7-10 - Room 11 - Huhge Second semester shorthand.

SPANISH CONVERSATIONAL Monday and Wednesday 7-9 - Room 20-21 - Casados Practice in improving reading skills and comprehension at have had some Spanish and wish to review.

Practice in improving reading skills and comprehension at

SWIMMING, REGINNING Monday and Wednesday 5:30-7:30 — Station Pool — Tom TYPEWRITING 1, BEGINNING

Thursday 7-10 - Room 22 - Butler

READING IMPROVEMENT

TYPEWRITING 2, SECOND SEMESTER Thursday 7-10 - Room 10 - Sasaki

upper elementary and high school levels.

application accenting the knowledge necessary to understand

SUPERVISOR AND EXECUTIVE DEVELOPMENT PROGRAM

THE ROCKETEER

Nature of the Program-The courses offered in this program are designed to provide development opportunities for NOTS supervisors and executives. Both civilian and military personnel are encouraged to participate. The suggested levels for which the courses are designed are noted but the final decision about nominations of any persons to any particular course is the responsibility of that person's department.

Registration—Registration for this spring semester starts immediately and continues through January 31. To register, send one completed NOTS Course Enrollment and/or Tuition Refund Certificate (Form 11ND-NOTS 12410/28) to Code 654. Nominees whose attendance is approved will be notified prior to the start of the course.

Description of Courses and Schedules

Communication Workshops (31/2 days each) (3 separate workshops) Coordinators: Dr. Jack R. Gibb, Consultant, for the first two; Dr. George Lehner, UCLA, for the third

Suggested for: 10-15 employees in the same work group Schedule: 19-22 Mar., 1-4 Apr., and 23-26 Apr.

Location: Kernville, Calif. These workshops will focus on the identification of communication problems within a functional work group. The trainer will try to help a work group establish a climate in which communication problems can be discussed freely and openly. Emphasis will be placed upon the communication process rather than the communication content. Work groups such as Department or Division Staffs, Project teams etc. wishing to use one of these workshops should contact Code 654.

Leadership Laboratory for Research and Development Supervisors in Federal Government

Coordinator: InterLab Committee on Personnel Administration Schedule: 12-15 June 1963 Suggested for: GS-12 and above R & D Supervisors

Location: Santa Barbara, California

This Laboratory includes sessions with shared leadership situations and also intensive lecture theory meetings specifically directed to the problems of research and development super-

Coordinator: Austin Ross, Head, Employee-Management Rela-

tions Division, Personnel Department Schedule: Wednesdays, 9.30-1130, 13 February through 3 April Suggested for: GS-11 through 13, Quartermen and above and LT through CDR.

Location: Social Hall, Community Center

This course will emphasize the philosophy of employee management relations at NOTS and will consider supervisor-subordinate relationships in the following areas: Disciplinary actions: removals: performance appraisals: awards and incentives: organized employee group relations; employee services; grievances and complaints; injury compensation and treatment; leave administration; hours of work; working conditions; conduct of investigations and hearings; and retirement.

Management for First-Line Shop Supervisors (12 hours) Coordinator: A. A. Adams, Head, Maintenance Control Division, Public Works Department

Schedule: Tuesdays, 1:00-3:00, 3 April through 28 May Suggested for: First Line Shop Supervisors, including Heads,

Leadingmen, and their equivalents Location: Conference Room A, Michelson Laboratory This course will deal with such aspects of first-line supervision

as manpower scheduling, equipment utilization, budgeting for material, the daily rate of expenditure, labor reporting, statutory limitations on budgeted funds, and the preparation of

Work Simplification (32 hours) Coordinator: Bard Monson, Head, Management Analysis Division

Central Staff Schedule: Tuesdays, 7.30-1130, 16 April through 4 June Suggested for: All levels

Location: Social Hall, Community Center

This is a do-it-yourself approach for supervisors and department staff personnel to the application of management analysis techniques in problem solving. Techniques covered include flow and process charting, shop loading etc.

Basic Leadership Training Laboratory (41/2 days) Coordinator: Dr. George Lehner, Professor of Psychology, UCLA Schedule: 4-8 March

Suggested for: GS-12-13, Quartermen and Chief Quartermen, LCDR and CDR Location: Kernville, Calif.

This course develops each participant's awareness to groups and his own influence on a group through theory presentations

Leadership Practices (45 hours)

Coordinator: Dr. R. W. Stephenson, Head, Employee Development and Research Division, Personnel Department

Schedule: Week of 15-19 April Suggested for: GS-11, Quartermen, LT.

Location: Kernville, Calif. This course will emphasize the importance of "process" in the generation of ideas. A one week sensitivity training lab will also include small sub-group meetings. The small teams will practice leadership skills with the objective of developing creative ideas. The course thus provides training in a group process, as well as an immediate opportunity to practice process skills in a creativity oriented group.

Human Relations (32 hours)

Coordinator: R. P. Biller, Acting Head, Employee Development and Research Division, Personnel Department Schedule: Mondays, 12.30-4.30, 11 March through 29 April

Suggested for: GS-12, Leadingmen, Quartermen, and Chief Quartermen and LT. and LCDR.

Location: Conference Room A, Michelson Laboratory This course will be concerned with the human relations aspects of supervising personnel. The course will concentrate on supplying the supervisor with feedback regarding the way his behavior influences relations with fellow supervisors and subordinates. Each participant will practice supervision in various types of situations (role playing), and will get the benefit of comments and criticism of fellow supervisors.

Creativity Training/Research Seminar (25 hours) Coordinator: Dr. R. W. Stephenson, Head, Employee Development

and Research Division. Personnel Department Schedule: Monday and Wednesday, 1.00-3.00, 22 April through

Suggested for: GS-12, Chief Quartermen and LCDR Location: Conference Room A. Michelson Laboratory

After a brief review of the literature on creativity, participants will try to solve test problems in a creative way with the help of several procedural aids to creative thinking. In later sessions, the class will continue to try and solve the test problems in a creative fashion, but will work under the influence of a variety of obstacles to creative thought. (The number and/or variety of obstacles will gradually be increased as the course progresses). Those who participate will be asked to take several creativity tests and personality inventories, as a part of the

DEVELOPMENT CLERICAL

Nature of the Program: The courses offered in this program are designed to provide development opportunities to these courses, there are other day classes such as Public Relations (see Specialized Training Program) that may be appropriate as well as the variety of evening school programs offered by Bakersfield College, Evening Division, and Burroughs Evening High School in English, Stenography, Accounting, Typing, general sciences, etc. that may be of interest. Participation in the Clerical Development Program is open to all NOTS employees, with each Department establishing its own participation policies.

Registration: Registration for this spring semester starts immediately and continues through 31 January. To register, send one completed NOTS Course Enrollment and/or Tuition Refund Certification (Form 11ND NOTS 12410/28) to Code 654. Nominees whose attendance is approved will be notified prior to the start of the course.

Description of Courses and Schedules

General Clerical Orientation Seminar (4 hours)

Coordinator: Eva Bien, Employee Development and Research Division, Personnel Department Schedule: Four offerings on Wednesday, 6 February, 17 April,

26 June and 14 August, 7:30-11:30 Location: Social Hall, Community Center This seminar is designed primarily to orient new employees to the general clerical process at NOTS. There will be a general cussion to familiarize clerical employees with the various manuals (e.g., timekeeping, supply and travel), procedures, and methods used at NOTS. Training available in specific areas will be outlined. Making appointments, telephone practices and filing procedures will be covered.

Clerical Workshop on Correspondence, Mail, File, Record Procedures and Security (6 hours) Coordinator: A. B. Clifton, Head, Mail, Files and Records Branch,

Command Administration Department Schedule: 12:30-3:30 Thursday February 21 and 28

Location: Room 107, Training Building This workshop covers the Naval Correspondence Manual, requirements of classified document control, accountings, marking and stamping procedures, transmission, what to do before mailing, receipt systems, precautionary measures, explanation of

the Navy filing system, functions of custody control points, etc.

Clerical Workshop on Travel Procedures (5 hours)

Coordinator: Kay Goodwin, Head, Travel and Transportation Branch, Command Administration Department Schedule: 12:30-3:00 Thursday, 7 and 14 March

Location: Room 107, Training Building This workshop focuses on the explanation and preparation of

travel orders, claims, visitor clearances and other travel pro-Clerical Workshop on Supply Procedures (4 hours)

Coordinator: Ellen Young, Assistant Supervisor, Supply Depart-Schedule: 1:00-2:00 Thursday, 21 and 28 March, 4 and 11 April

Location: Social Hall, Community Center This workshop provides instruction in the organization and procedures of the Supply Department, including information on the different ordering procedures for purchased and stocked tems and the completion of the necessary forms.

Clerical Workshop on Timekeeping Procedures (8 hours) Coordinator: Gordon Dunkel, Head, Cost and Analysis Branch, Accounting Division, Central Staff

Schedule: 2:00-4:00 Thursday, 25 April, 2, 9, and 23 May This workshop concentrates on timekeeping procedures, with emphasis on problem areas in pay coding, premium pay codes, preparation of time cards, relationships between hours worked and labor distribution, leave regulations, and compensatory and excused time questions.

Clerical Workshop on Personnel Forms (3 hours) Coordinator: Joe Doucette, Head, Personnel Service Division Num-

ber 1, Personnel Department

PROGRAM

Schedule: Thursday, 1:00-4:00, 6 June Location: Social Hall, Community Center

This workshop gives information and practice in the comp tion of personnel forms used by departments, including PARs, cover sheets, SF-58s, Performance Award and Benny-Sugg Forms, training enrollment forms, use of IBM personnel list-

Punctuation (2-4 hours, approximately) Type of instruction: AutoTutor Teaching Machine

Coordinator: Eva Bien, Employee Development and Research Division, Personnel Department

Schedule: Individually arranged

Location: Training Building This program is designed to provide a quick review of basic

punctuation rules. This course would be especially good for clerical personnel who would like a refresher course in punctu-

JOURNEYMAN AND TECHNICIAN **DEVELOPMENT PROGRAM**

Nature of the Program: These courses are designed to ment and/or Tuition Refund Certification (Form 11ND Schedule: Wednesdays, 2:00-4:00, 17 April through 29 May make a variety of development opportunities available to artisans and technicians in a range of skill areas. The NOTS courses listed contain a suggestion for suitable participants. These suggestions do not arbitrarily limit the kind of participant accepted. Each supervisor should determine, with his employees, the courses most needed for each individual's development. Burroughs Evening High School and Bakersfield College Evening Division offer many courses that should prove helpful to Journeymen and Technicians. These in-

Burroughs Evening High School Algebra 1 Algebra 2 Electricity, Basic Electronics 1, Beginning Mathematics, Industrial Mechanical Drawing and Blueprint Reading

Bakersfield College Physics 60B Chemistry 2A Physics 1B Industrial Drawing 30B Mathematics A Mathematics D Mathematics 3B

Mathematics 53B Reading Improvment Mathematics 54 English 51B

Registration: Registration for this spring semester starts immediately and continues through January 31. To register, send one completed NOTS Course Enroll-

NOTS 12410/28) to Code 654. Nominees whose attendance is approved will be notified prior to the start of the course.

Description of Courses and Schedules

Conduit Bending (16 hours)

Coordinator: J. D. Whitfield, Apprentice Electrician Instructor Schedule: Wednesdays, 2:00 to 4:00, 20 February through 10 April Suggested for: Journeymen and Helper Electricians Location: Public Works Electric Shop, Bldg. 978

The course is designed to acquaint the participants with the fundamentals of precision conduit bending using hydraulic and screw jack machines. The mathematical basis for bending will be discussed. Safe machine operation will be accentuated. Every student will have the personal experience of bending various types of conduit during the instruction.

Industrial Electronics (24 hours)

Coordinator: J. D. Whitfield, Apprentice Electrician Instructor Schedule: Tuesdays, 2:00-4:00, 5 March through 21 May Suggested for: Journeymen and Technicians in different skill areas

who handle or use electronic equipment Location: Training Building

The course aims to provide a practical working knowledge of the industrial applications of electronics. Electrical experience, while helpful, is not necessary to follow the course. Electronic tubes, relay systems, rectifiers, and photoelectric systems are among the subjects covered. A slide film presentation with sound track is used as the foundation for the instruction.

Electrical Schematics (14 hours) Coordinator: J. D. Whitfield, Apprentice Electrician Instructor Suggested for: Journeymen and Helper Electricians and Draftsmen Location: Training Building

This course will cover the reading and drawing of electrical schematics. The symbols and wiring diagrams used for power and control circuits will be explained and used. Their application to magnetics and relays for interlocking automatically controlled machines and processes will be explained.

Basic Plastic Industrial Technology (36 hours) Coordinator: Carl Flagg, Apprentice Sheetmetal Instructor Schedule: Thursday, 2:00-4:00, 14 February through 13 June Suggested for: Journeymen and Technicians in different trade

Location: Training Building The course will contain an introductory discussion of the chemistry of plastics and their manufacture, combination, and use, There will be applications, demonstrated and practiced, of the forming, fastening, and cutting of plastics used on the Station.

Basic Industrial Metallurgy and Heat Treating (20 hours) Coordinator: Apprentice Machinist Instructor Schedule: 7:30-11:30, 11 March through 15 March Suggested for: Journeymen and Technicians in the Machinist,

Sheetmetal, and Welding areas Location: Training Building

areas who use plastics

The basic structure and chemical and physical properties of metal currently in use on the Station will be discussed. The effect of stresses and strains on machined and welded components will also be discussed. Prerequisite: Basic algebra.

Reading and Interpretation of the Symbols and Specification of Mil Std. 8B (20 hours) Coordinator: Apprentice Machinist Instructor Schedule: 7:30-11:30, 6 May through 10 May

Journeyman and Technician Program (cont.)

Friday, January 18, 1963

Suggested for: Journeymen, Draftsmen, and Technicians who use prints with the Mil Std. 8B symbols Location: Training Building

The purpose of the standards will be explained. The symbols and specifications will be identified and interpreted. (Drawing and reading prints with the Mil Std. 8B symbols will be accomplished.)

Nature of the Program: Through this program a num-

ber of specialized courses are offered that do not apply

to any specific segment of employees such as profes-

sionals, technicians, etc. The courses are designed to

develop capability in special areas and are open to all

NOTS personnel for whom the course material is

appropriate. Supervisors are encouraged to review this

course listing in the development of employee training

Registration: Registration for this spring semester

starts immediately and continues through 31 January.

To register, send one completed NOTS Course Enroll-

ment and/or Tuition Refund Certification (Form 11ND

NOTS 12410/28) to Code 654. Nominees whose attend-

ance is approved will be notified prior to the start of

Procurement Management for Technical Personnel (40 hours)

Suggested for: Scientists and Engineers (25 per session)

Location: Conference Room B, Michelson Laboratory

Schedule: Three Sessions, 14-18 January, 21-25 January, 28 Janu-

This course provides a broad understanding of the Navy pro-

curement process, and then emphasizes those parts of the proc-

ess which directly involve cognizant engineering and technical

personnel. Research and development case studies will be dis-

Coordinator: L. S. Licwinko, Technical Assistant to Associate

Suggested for: GS-11 and above, Quarterman and above, Lieuten-

This seminar will focus on a discussion of the criteria, usages,

and control systems, including PERT. Persons registered from

R. T. Carlisle, Assistant Department Head, Weapons

Seminar on Network Planning and Control Systems (20 hours)

Development Department

Schedule: 1:00-3:00 Wednesdays, 6 February-10 April

Location: Conference Room A, Michelson Laboratory

Fall semester do not need to reapply.

Description of Courses and Schedules

Coordinator: Harbridge House, Inc.

cussed and analyzed.

Technical Director

ant and above

ary - 1 February, 7:30-4:30

the course.

their own attendance policies for these courses.

Basic Transister Theory and Application (30 hours) Coordinator: C. Neal, Head, Electronic Design Branch (4051) Schedule: Tuesdays, 2:00-4:00, 12 February through 21 May

Slide Rule (8-20 hours approx.) Coordinator, Eva Bien, Employee Development and Research Division, Personnel Department

> Schedule: Individually arranged Location: Can be checked out and then taken home or anywhere

Suggested for: Electronic Mechanics and Technicians

and use transistors in the shop situation.

Type of Instruction: Programmed Text

Location: Training Building

The emphasis of this course is on understanding the slide rule rather than merely performing operations with certain scales.

SPECIALIZED TRAINING PROGRAM

vision, Personnel Department Type of Instruction: Programmed Text Format

Schedule: Individually arranged Location: Can be checked out and taken home or anywhere This program is designed to teach such people as managers,

engineers, staff assistants and training directors the intricacies of PERT operations, a modern technique of project planning,

Coordinator: Eva Bien, Employee Development and Research Di-

plans this Spring semester. Departments determine Readings in the Social Sciences (24 hours) Coordinator: Ray Harrison, Associate Head, Personnel Depart-

> Schedule: 1:00-4:00 Tuesday, 12 March-30 April Suggested for: Supervisors and staff personnel concerned with the application of the social sciences to the NOTS situation

> Location: Conference Room A, Michelson Laboratory This seminar will review the current literature in the social sciences, with emphasis on potential applications to the motivation and organization of people in a research and development activity such as NOTS. Each member of the seminar will be expected to review a segment of the literature,

Safety in a Dangerous Environment (24 hours) Coordinator: Kit Skaar, Head, Safety Department Schedule: 9:30-11:30 Thursday, 4 April-20 June Location: Social Hall, Community Center

This course is recommended for employees within their first year of employment new to hazardous areas or occupations. The course will include lectures, discussion,s and demonstrations by Safety, Test, Propulsion Development, and Research Department personnel. Particular focus will be given to acceptable personal risk levels in range and explosive safety.

Public Relations (12 hours) Coordinator: Jack Broward, Assistant Public Information Officer Schedule: 9:30-11:30 Fridays, 15 March-19 April Location Conference Room C. Michelson Laboratory

This course is designed for those who consistently deal with individuals outside their own group, such as policemen, telephone operators, secretaries, clerks in service organizations and others dealing with the public. The class will present material and focus discussions on the techniques of effectively dealing with public groups, how to create effective working relationships.

Computer Programming (5-12 hours per part approximately) techniques, and possible local applications of network planning Coordinator: Eva Bien, Employee Development and Research Division, Personnel Department Type of Instruction: AutoTutor Teaching Machine

Principles behind the most commonly used scales are thoroughly developed. Elementary knowledge of simple arithmetic, al-The first portion of a two-part course in transistor theory and gebra, and plane geometry is necessary.

Introduction to Electronics (10-20 hours approx.)

Coordinator: Eva Bien, Employee Development and Research Di-

vision, Personnel Department Type of Instruction: Programmed Text

Schedule: Individually arranged

Location: Can be checked out and then taken home or anywhere This program is designed to provide the student with a useful understanding of basic fundamentals of electronics. This course

is recommended as a prelude to advanced study.

Location: Training Building This program is designed in four parts to teach the student what computers can do and how to tell them what to do, i.e., how to get numbers in, how to tell them to do arithmetic, how to get answers out, etc. Neither electrical circuitry nor

internal functioning of computers is covered. Part I:-Introduction to Programming-Computer Arithmetic

Part II:-Programming Techniques

Part III:-Advanced Techniques Part IV:-Business and Science applications-FORTRAN

Introduction to Computer Mathematics (8-20 hours approximately) Coordinator: Eva Bien, Employee Development and Research Di-

vision. Personnel Department Type of Instruction: AutoTutor Teaching Machine schedule: Individually arranged

Location: Training Building This program is designed to provide the student with an useful understanding of the octal and binary number systems used in electronic computers to perform complicated mathematical com-

putations. Introductory Statistics (20-25 hours approximately)

Coordinator: Eva Bien, Employee Development and Research Division, Personnel Department Type of Instruction: Min/Max Teaching Machine

Schedule: Individually arranged Location: Can be checked out and taken home or anywhere This program is designed in two parts to give students a

thorough grasp of statistics fundamentals. Part A: Descriptive Statistics Part B: Statistical Inference

Retirement Planning (20 hours approximately) Coordinator: Austin Ross, Head, Employee Management Relations Division, Personnel Department

Schedule: Individually arranged Suggested for: Employees and spouses within 1-5 years of re-

This is a home study course using a University of Chicago set of handbooks, supplemented with appropriate government retirement material. The course covers information on such topics as the challenge of later life, the meaning of work, financial planning for retirement, the retirement system, increasing retirement income, getting the most out of leisure and living arrangements in later life, physical and mental health in later life, family-friend living arrangements, and criteria for where to live after retirement. During the latter part of the semester a discussion session will be scheduled for those having completed the course. Individual counseling will also be available.

USC SCHEDULE OF CLASSES

REGISTRATION. Registration and payment of fees for week of classes with a valid reason. Upon successful the spring semester will take place on 5 February completion (a grade of C or better), a full refund of 1963 in Conference Room A, Michelson Laboratory at 1430. Persons who are unable to attend this meeting for registration should contact the registrar in the Education Office, Room 1004, Michelson Laboratory.

TUITION REFUND ELIGIBILITY, NOTS Course Enrollment Form and/or Tuition Refund Certification, 11ND-NOTS-12410/28 should be signed by the employee's supervisor (indicating that training is relevant to present or projected work assignments) and dated prior to the first meeting of class.

TUITION. Tuition may be paid in full on 5 February. Arrangements for deferred payments (\$5.00 fee required) may also be made at this meeting.

REFUNDS. Partial refunds of fees will be made by the University to students who withdraw prior to the sixth Instructor: Mr. Jameson

tuition (not including the deferred payment charge or any late fee) will be made to each eligible employee. TEXTBOOKS. Textbooks will be available at the regis-

tration meeting on 5 February. The Education Office

who register late. FACULTY. Both courses in the spring semester will be conducted by Samuel H. Jameson, Ph.D., Visiting Professor of Public Administration, University of Southern California.

SCHEDULE. The following courses have been scheduled for the spring semester of 1963.

Pub. Adm. 517a, Seminar in Human Relations in Management 2 units — \$72.00)

Thursday, 4:30-6:10 p.m.; Conference Room A, Michelson Lab

15 meetings, beginning 14 February 1963 Prerequisite: Admission to graduate status in the School of P.A. Leadership, social organization, incentives, human obstacles to production, ideological conflicts between worker and manage-

Pub. Adm. 504a; Administration and Social Sciences (3 units-\$108.00) Instructor: Mr. Jameson

will attempt to secure additional copies for persons Thursday, 7:00-9:40 p.m.; Conference Room A, Michelson Lab 15 meetings, beginning 14 February 1963 Prerequisite: Admission to graduate status in the School of P.A. Scope and method of the several social sciences as related to

major problems and processes of public administration. ACCESS TO MICHELSON LABORATORY, Students who do not have access to Michelson Laboratory should notify the registrar on or before 5 February. No Uncleared Student will be admitted to the Michelson Laboratory Classroom unless arrangements have been made by the Education Office with Security.

PROFESSIONAL DAY CLASSES

REGISTRATION. Registration for the Day-Class Pro- drawal Request, Form 11ND NOTS 2930, to the ingram will be conducted from the date of issuance of structor via his supervisor. this bulletin through 25 January 1963. NOTS Course Enrollment Form and/or Tuition Refund Certification 11ND-NOTS-12410/28 should be submitted in behalf of each employee authorized to participate in the program. Each employee whose participation has been approved will be advised prior to the commencement

AUTHORIZATION CRITERIA. No employee is authorized to participate in more than one 16-week course or two 8-week courses in any one semester. Supervisors should consider the relation of course content to the actual or prospective work assignments of the employee. Enrollees are expected to attend classes regularly.

of classes the week of 4 February 1963.

NATURE OF DAY-CLASS PROGRAM. The program is intended to complement the Station's academic program of evening-class courses. The courses apply basic scientific and engineering knowledge and techniques to the special problems of weapons research, development, test, use, and production. The official time devoted to attendance and "homework" preparation for Day-Classes will not exceed 4 hours per week for any student.

GRADING SYSTEM. A grade of "O" (outstanding), "S" (satisfactory), or "U" (unsatisfactory), will be assigned to each participant who completes a Day-Class course. WITHDRAWALS. An enrollee who wishes to withdraw from a course must submit In-Service Course With-

COURSE SCHEDULE. The following courses have been scheduled for the spring semester of 1963: S & E 5A, Instrumentation and Test Techniques (8 meetings starting 4 February 1963)

Instructor: William W. Baer, Electronic Engineer, Electronic Systems Branch, Test Department MONDAY'S, 0800-1000; M. L. Conference Room A (16 hours) Admission requirements: CONFIDENTIAL clearance; departmental authorization

Survey of optical and electronic trajectory measurement devices:

metering; thrust stands; instrumentation for measurement S & E 5B, Instrumentation and Test Techniques (8 meetings start-

ing 8 April 1963) Instructor: William W. Baer MONDAY'S, 0800-1000; M. L. Conference Room A (16 hours) Admission requirements: CONFIDENTIAL clearance; departmental authorization

urements; statistical testing; development testing versus evaluation testing versus demonstration testing versus destructive S & E 2A, Guidance and Control (8 meetings starting 5 February

Data gathering and handling; steady-state and transient meas-

Instructor: R. G. S. Sewell, Division Consultant, Air-To-Surface Weapons, Weapons Development Department TUESDAY'S, 0800-1000; M. L. Conference Room A (16 hours) Admission requirements: CONFIDENTIAL clearance; departmen-

tal authorization Brief survey of guided missile types now current; simple analysis of trajectory characteristics of the various types of guided missiles; the guided missile as a servo system. S & E 2B, Guidance and Control (8 meetings starting 9 April 1963) Instructor: R. G. S. Sewell

TUESDAY'S, 0800-1000; M. L. Conference Room A (16 hours) Admission requirements: CONFIDENTIAL clearance; departmen-

tal authorization Survey of guidance systems now in use; survey of aerodynamic considerations for guided missiles; survey of control servo systems; noise limitations; simplicity and reliability; production, maintenance, and cost considerations; the weapons system con-

S & E 16, Principles of Invention (8 meetings starting 6 February Instructor: Clarence E. Weinland, Division Consultant, Air-To-Surface Weapons, Weapons Development Department WEDNESDAY'S, 0800-1000; M. L. Conference Room A (16 hours)

Admission requirements: CONFIDENTIAL clearance; departmental authorization. Designed to increase the ingenuity of employees. Strategy and tactics of science, conditions which limit and conditions which enhance creativity, ways for gaining acceptance of new ideas,

practice in solving selected problem S & E 4, Applied Aerodynamics (8 meetings starting 10 April 1963) Instructor: Ray W. Van Aken, Head, Aerothermodynamics Branch,

Weapons Development Department WEDESDAY'S, 0800-1000; M. L. Conference Room A (16 hours) Admission requirements: CONFIDENTIAL clearance; depart-

mental authorization Elementary subsonic and supersonic aerodynamics directed toward understanding the fundamental force systems acting on three-dimensional bodies, such as rockets and guided missiles.

S & E 22, Reliability (16 meetings starting 7 February 1963) Instructor: Gerald W. Hurst, Senior Reliability Engineer, Weapons Development Department

THURSDAY'S, 0800-1000; M. L. Conference Room A (32 hours) Admission requirements: CONFIDENTIAL clearance; depart-

mental authorization Current techniques for obtaining reliability in products, with emphasis on military use. These techniques relate to the design, development, manufacture, and use of equipment. Statistical methods employed in the reliability field.