

SHOWBOAT

FRIDAY JANUARY 24
"DUFFY" (101 Min.)
James Coburn, Susanah York, James Mason
7:30 P.M.

(Adventure/Comedy) Two brothers plan a crime-for-kicks in rebellion against their father and they recruit a pair of hippies to help them. High voltage laughs result as the plot twists. Wait'll you see Jim's pad! Like wow! (Adult.)
Short: "Sports A-Go-Go" (10 Min.)

SATURDAY JANUARY 25
—MATINEE—
"TIKO AND THE SHARK" (88 Min.)
Native Cast
1:00 P.M.
Shorts: "Mucho Mouse" (7 Min.)
"Ghost Riders" (No. 9, 13 Min.)

—EVENING—
"MISSION MARS" (91 Min.)
Darren McGavin, Nick Adams
7:30 P.M.
(Science/Fiction) Thrilling account of possible (?) problems as astronauts make a perfect launch, and connection to orbited supply ship, but after landing on Mars' frozen surface an eerie magnetic force prevails. Authentically exciting! (Adult, Youth.)
Shorts: "Mucho Mouse" (7 Min.)
"Killers of the Swamp" (17 Min.)

SUNDAY-MONDAY JANUARY 26-27
"THE SECRET LIFE OF AN AMERICAN WIFE" (92 Min.)
Walter Matthau, Anne Jackson
7:30 P.M.

(Comedy/Drama) Sock-it-to-'em comedy about a neglected wife whose husband works for a real swiggin' male movie star. Anne's solution to the problem may be shocking but it solves the dilemma in a wild finish. This is a witty comment on dull suburbia that may appall a few folks, but it's slick socia satire! (Adult.)
Shorts: "Fuddy Duddy Buddy" (7 Min.)
"From Sea to Sky" (9 Min.)

TUESDAY JANUARY 28
"A LOVELY WAY TO DIE" (104 Min.)
Kirk Douglas, Sylvia Koscina
7:30 P.M.

(Mystery) Spicy laugh-ramp about a former cop who bodyguards a lovely, accused-of-murder widow whom he thinks is guilty. The tough cop, supple Sylvia and her y'all drawl lawyer make this a don't miss fun thriller only for the (Adult).
Short: "Balk-eater Country" (9 Min.)

WEDNESDAY JANUARY 29
CHINA LAKE CIVIC CONCERT

THURSDAY-FRIDAY JANUARY 30-31
"HOMBRE" (111 Min.)
Paul Newman, Richard Boone, Diane Cilento
7:30 P.M.

(Western) This hombre is a white raised among the Apache, a man of strange code —unrelenting. His stagecoach trek with an odd assortment of people makes for thrilling action when banditos attack. Fast-paced, exciting! (Adult, Mature Youth.)
Short: "French Freud" (7 Min.)

FRIDAY JANUARY 31
"THE BRAVE LITTLE TAILOR"
The Lesselli Marionettes
3:30 P.M.

Falcons Begin Drive For Fifth Title

(Continued from Page 10)

place. The Vampires held off a late Ace TV charge to down Ace 58-57. Down 39-28 at the end of the third period, Ace outscored the Vampires 29-19 in the final period only to fall one point short. Tim Higgins led the fourth period outburst, scoring 15 points and finishing with 27 for the night. Ken Cappel and Gary Ellwanger each had 10 points for the Vampires.

VX-5 withstood a late Hustler rally to down the tailenders, 55-54. The Vampires lost a 15 point lead in the final period then won it on a three-point play by Terry Atkinson in the final seconds. Cappel had 20 points to lead the scoring in this one while Gary Ziegler hit 15 for the Hustlers.

In the only other game played last week, Ace downed OMD 56-38. OMD's Ken Gipson had 17 points to lead the scoring while Higgins led Ace with 16.



SWEARING-IN CEREMONY — Members of the China Lake Mountain Rescue Group, the Indian Wells Valley Mine and Surface Rescue Team, and the Center's Security Force were sworn in recently as special deputy sheriffs to assist in enforcing the law in Indian Wells Valley. Officials attending the ceremony were: Charles H. Dodge, Sheriff of Kern County, left foreground, Senior Deputy Sheriff in charge of Ridgecrest Sub-Station, Donald Glennon, behind Dodge; and NWC Police Chief, Val Cummins, behind Glennon. Special deputies sworn in are: (l-r) front row, John J. Zenor, Nick

Bottka, Ronnie Smith, John Wick, Bob Beardsley, Don Gambill, James Malone, William Philpott, W. A. Wieman, John Schulz, Charles Fugate, Ralph Todd, Johnny Sidebottom, Lee Lucas; 2nd row, Don Peterson, David Matthews, Marshal Kimball, Floyd Peters, Harold Art, Jim Sumrall, John Hollwedel, Donald Eaton, James Adams, Tibor Kulchar, James Diebold, Caren Diebold; 3rd row, Thomas DeMay, Thomas Boggs, Alan Fouse, Steve Freeman, Frank Ryerson, Gerard Lefebvre, Lewis Dunkle, Oscar Paulsen, John Catey, Bob Wells, John O'Drobinak, and Elizabeth Anderson.

Marionettes Entertain



THE BRAVE LITTLE TAILOR — That's the name of a play to be presented at the NWC Theater at 3:30 p.m., Jan. 31. The offering, sponsored by the American Association of University Women, is being played by the Lesselli Marionettes. The Marionettes (above) which act out the story have been fabricated and, during the play, are handled by Leslie and Eleanor Heath of San Rafael.

Stop Sign To Be Erected At Main Gate

As of January 31, 1969, a stop sign will be seen by persons leaving the Center by the main gate. Installation of the STOP sign was recommended by the Safe Driving Council after other efforts to slow traffic through the main gate were found to be ineffective.

A few near accidents involving vehicles and persons in the pedestrian crossing have become of great concern. One such near accident required that an ambulance be called when the pedestrian appeared to be suffering a heart at-

tack from his exertion and fright.

Recently a 12-mph speed zone was created in an effort to slow drivers approaching the crosswalk and a number of tickets were given out to offending motorists. The warrants tended to reduce the speed of the flow of traffic, but only temporarily.

Installation of lumps or dips has also been considered as a means of slowing traffic but it is believed that a stop sign making every driver come to a stop at the main gate before proceeding through the pedestrian lane would be the most effective means of slowing vehicles in that area until other means are found to control traffic.

LAW IN ACTION

A LOST WILL

Joe Jones, a bachelor, had lived with Pete Smith and his family for fifteen years before he died. In his will he left all his estate to the Smiths. He often showed the Smiths his will.

But when Jones died, no one could find his will, or even a copy.

Jones' sister and brother, whom he hadn't seen for years, claimed the estate, since if he died without a will (intestate) his nearest relatives (his parents, brother, and sister) would legally come into the estate.

But if his will could be proved, Smith would get the estate. The law says that a person may destroy or lose his will accidentally. If so, the court can accept a copy or some other proof of it. But Pete Smith could not prove the will. If a person destroys his will meaning to revoke it, then the will can never be probated.

A person may want to die without a will (intestate) and let California law say who gets his estate.

As a rule, a lawyer who drafts a will keeps a copy or sometimes the original. Thus the will can only be changed or destroyed in line with the testator's own desires.

The law presumes a person

who destroyed or "lost" a will did so to revoke it. Lacking proof to the contrary, the court will hold there is no longer any such will. In this event, the testator dies intestate. His estate goes to his nearest relatives under the general law.

But someone may have served the decedent, taken care of him, looked after his home. The court may allow such a person to be paid from the estate for these services like other creditors. Thus, Smith took care of Jones for years, and gave him room and board. He may be able to claim payment from Jones' estate. This depends on whether Jones expected to pay for his care, and whether Smith expected to pay for his services. Should Smith give this care purely as a friend without expecting payment, he then would have no claim.

Such a creditor must prove his claim like others. If there is not enough to pay the claim



in full, he and other creditors must take less than full payment.

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

HELP STOP FIRES

From _____	STAMP
TO _____	

ROCKETEER

Vol. XXIII, No. 3

Naval Weapons Center, China Lake, California

Fri., Jan. 24, 1969

Radioman Perkins Number One Bluejacket for Month of January

Competence, Aggressiveness Earns Praise

RM1 Morris J. Perkins is a career sailor with 11 years of service behind him. He has been selected as the "Bluejacket of the Month" for January because of his obvious pride in the Navy and the role he plays in it. Morris, or "Morrie," as he is called by those who know him best, has indeed found a great deal of satisfaction in Navy life — and this fact is apparent to all who meet him.

In recommending Perkins for this high honor, Lt. Moore, Perkins' Division Officer wrote: "Perkins has been solely responsible for an increase in the amount and caliber of military and professional training in the Division. He has re-written existing and initiated new examinations in the areas of general naval communications and off-line crypto procedures. The professional competence of the men in the Second Division has increased measurably since Perkins took over the training responsibility."

As NWC's "Bluejacket of the Month," Perkins will be the weekend guest of the Bakersfield Chamber of Commerce. He will be highlighted on KERO-TV, and given a hospital-ity packet of Gift certificates from participating merchants in that area. In addition, while he is in Bakersfield, he will have a car at his disposal, courtesy of Urner Chrysler/Ply-



BEST MAN — RM1 Morris Perkins relaxes at home with his family who reside at 311 Cisco in the Wherry housing area. Perkins has been chosen "Bluejacket of the Month"

for January. The other Perkins include: (l-r) James, 9; Perkins' wife Patricia; Mitchell, 8, and Paul, 5. Morris is attached to the Communications Division.

outh, and he and his wife. Patricia Ann, will be hosted by the Holiday Inn Motel for meals and lodging accommodations.

Native of Pennsylvania

"Morrie" attended McDowell High School in Erie, Pa., and it was in that same fair city that he met his wife, the former Patricia Ann Dombowski. Married in October, 1957, they now have three strapping

sons: James, 9; Mitchell, 8; and Paul, 5. The Perkins reside at 311 Cisco, Ridgecrest, in the Wherry housing area.

Morrie's off-duty activities include coin collecting, refinishing old furniture, automobile and motorcycle mechanics, and raising tropical fish. His wife, Pat, is a ceramic buff, and interested in all of the various aspects of homemaking, interior decorating, etc.

INAUGURAL MEDAL

The 1969 Inaugural Medal (see page 1 of the last issue of The ROCKETEER) may be obtained by coin and commemorative fanciers as follows, according to Ed Reinecke, 27th District Congressman.

Orders, accompanied by checks or money orders, can be mailed to: Inaugural Medal Committee, P. O. Box 1800, Washington, D.C. 20013.

There have been two medals cast — one in bronze, which will be 2 1/4 inches in diameter which sells for \$6, and the other — 2 1/2 inches in diameter, in .999-plus pure silver — which sells for \$45.

The face of the medal bears a sculptured portrait of President Nixon, as crafted by the noted artist, Ralph J. Menconi, of New York. The obverse side depicts the Great Seal of the United States and is a sculptured miniature of the crewel pattern embroidered by Julie Nixon Eisenhower and presented to her father with the signature "To RN-JN."



STAMP COLLECTOR — Pretty Vicky Romero shows us where they go as she prepares to drop a book of blue chip stamps into a China Lake-Ridgecrest PTA collecting station. Containers, such as the one shown above, have been placed at various markets in the area, and shoppers are urged to donate stamps which are used to help support the PTA-sponsored scholarship program.

In This Issue:

SPRING SEMESTER COURSE SCHEDULE

Military May Receive Cash For Suggestions

Before President Johnson left the White House, he signed an Executive Order which makes it possible for military personnel to receive cash awards from civilian agencies of the Government for suggestions, inventions, or scientific achievements that benefit those agencies.

Basically, it puts into effect the inter-departmental awards phase of the program authorized in the military cash awards law of 1965 (PL 89-198).

Under the law's military service provisions, members of the armed forces have been eligible to receive awards for suggestions adopted within the services.

Tangible benefits of over \$119,000,000 have already been realized as a result of the awards program. Now members of the military will be eligible for awards on essentially the same basis as civilian employees. As much as \$25,000 is awardable for a single suggestion or achievement under the terms of the President's order (Executive Order 11438).

The action is expected to encourage even greater participation by members of the armed forces in the Government's highly successful incentive awards program, with the resulting improvements benefiting the American taxpayer.

The Act, passed by the 89th Congress (H.R. 8333), amends Title 10, United States Code, "to provide for the establishment of a program of cash awards for suggestions, inventions, or scientific achievements by members of the armed forces which contribute to the efficiency, economy, or other improvement of Government operations."

CHAPLAIN'S MESSAGE

On Knowing Oneself

By Senior Chaplain Harold A. MacNeill



It is difficult to see ourselves as we really are. It was suggested to a young man having difficulty with alcohol input that he consider membership in Alcoholics Anonymous. He replied, "But Chaplain, I am not anonymous."

These are days when we establish our own identity by "The shifty eye technique." Social scientists say that our key words must be: flexibility, adjustment and warmth.

If our peripheral vision is good we can sum up the mood of our particular "gathering," run a quick check on ourselves, and we either come out "appropriate" or "inappropriate." On some occasions we would wish that we were anonymous.

Religion faces a problem. It has to maintain eternal truths and values. These concepts have to be clothed in words, and sometimes words are poor vehicles when it comes to conveying meaning. Although it faces this problem it brings one advantage for our particular times, which are characterized by such terms as "existential," "relevant," "authentic," etc. It gives a person a norm in which one can "back off" and take a look at oneself "as one is."

Then the question that I have often faced when I try this on myself, "Do I like what I see?"

CENTER LIBRARY LISTS NEW BOOKS

A complete list of new books is available in the library.

Fiction
Anderson—The Gooney Bird.
Bailey—Number Two Man.
Lockwood—The Accessory.
Shannon—Kill With Kindness.

Non-Fiction
Astoria—Candid Photographic Portraiture.
Carrison—The United States Navy.
Chidsey—The War in the North.

Cook—The Battle of Cape Esperance.
Lillow—Introducing Machine Embroidery.
Milligan—Gunboats Down the Mississippi.
Pinney—Vanishing Tribes.
Yastrzemski—Yaz.

Brewton—America Forever New.
Brooke—The Challenge of Change.
Langley—Edgar Cayce on Reincarnation.

PROMOTIONAL OPPORTUNITIES

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

The vacancies listed are effective from January 23 to 31, 1969.

Mail and File Clerk, GS-305-04, Code 2505 — Performs a variety of functions — control and disposition of incoming documents, central files, guard mail runs; duplicating; clerical and typing services.

Clerk-DMT, GS-316-05, Code 2520 — Duties include frequent personal and telephone contacts with individuals at all levels of the Naval establishment and with representatives of business and industry, the collection and presentation of data concerning contracts and related areas, dictating machine work, and preparation of charts and graphs.

Clerk (Typing), GS-301-03-04, Code 8411 — This position is that of Personnel Interviewer (typist), Security Division, Identification Branch, Processing Section. Incumbent processes personnel for security access to the Center, obtaining required information and processing this information through appropriate security channels.

File applications for the above with Carol G. Gads, Bldg. 34, Rm. 26, Ext. 71648.

Administrative Assistant or Officer, GS-9, 11, or 12, Codes 455 and 456 — Administration of Division policies; assist in preparation of 5 year plans, and current budgets; provide inputs governing O.H. costs and rates; recommend personnel actions, assist in P.D. writing and training program; administration of collateral equipment; advise on disciplinary action, make recommendations; provide fiscal information, make analysis relative to budgets, facilities and personnel.

General Engineer, GS-11, 12 or 13, Code 4503 — Position located in the Program Management and Integration Group. Incumbent will be responsible for the coordination and direction of the development of weapon systems or subsystems. This may include determination of system interface and performance requirements, design and evaluation programs, monitoring design and testing, making trade-off studies, scheduling, and preparing technical development plans.

File applications for the above with Jan Bixler, Rm. 24, Personnel Department, Phone 72723.

Management Technician (Facilities), GS-5, Code 1711 — This position is located in the Management Analysis Staff. The purpose of this position is to provide space occupancy data and related services to all levels of Center Management and to maintain a Center-wide space occupancy data file. This is a part-time position.

File application for the above with Sue Prasolowicz, Bldg. 34, Rm. 26, Ext. 71577.

Supervisory Mechanical Engineer (Ordinance) GS-830-13, PD No. 935006, (Code 3543) — This position is that of Branch Head, Inertial Components Branch, Development Division IV, Aviation Ordnance Department. The incumbent provides leadership and technical guidance in the solution of problems and is responsible for the administrative direction of the Branch. The principal effort of the branch is to design, develop and test inertial mechanical and optical devices for guided missiles and other weapons, and to provide technical liaison and support for follow-on contracting.

Must have Bachelor's Degree in Engineering or closely related field. Must have two (or preferably three) years experience in inertial platforms for guided missiles and related airborne weapon systems. Must have general familiarity of electronic inputs and outputs of inertial platforms and electronic associated equipment.

Must also meet Civil Service Commission qualifications requirements outlined in its standards for GS-13 level professional Engineering positions.

File application with Mary Morrison, Rm. 32, Phone 72032.

Peripheral Equipment Operator or Key Punch Operator, GS-4, 5 or 6, Code 3024 — Incumbent will be required to operate equipment such as eight channel sanborn brush recorder, audio and video magnetic tape recorder, card punch and card sorter. Incumbent also will assist in maintaining a magnetic tape library. Position is located at Randsburg Wash.

File application with Fawn Haycock, Bldg. 34, Room 34, Phone 71514.

Computer Programmer, GS-9, 11 or 12, Code 3024 — This position is located in the Echo Range Test & Evaluation Branch, Systems Development Department. The incumbent will program for the UNIVAC 1230 ADP system in CS-1 computer language and the UNIVAC 1108 ADP system. This position will require travel to Randsburg Wash to work with the UNIVAC 1230 ADP system. Qualifications: Experience which demonstrates proficiency in developing computer programs and a general knowledge of digital computer equipment. Knowledge of control theory and the CS-1 computer language would be very desirable. For GS-9 position, the applicant must have 1

(Continued on Page 4)

EDITORIAL

Cash When You Need It

A good education is no longer a luxury, it is a necessity. More and more, business and industry are demanding that their employees be equipped with a solid academic background in order to meet and solve the complex problems of the space age.

The man in uniform, of course, has a head start toward obtaining an extensive formal education. With the various in-service programs available to personnel on active duty and the provisions of the G. I. Bill for former service personnel, you can be confident of having the necessary assistance to help you obtain your education.

There is, however, another matter to consider. When your son or daughter is ready for college, will you be ready to pay for it?

Recent surveys show that the cost of attending an institution of higher learning in the mid-1960's averaged about \$1,600 a year at public institutions and \$2,430 for private ones. And, there's every indication that the cost will continue to rise.

Self-help, tuition grants and student loans may answer part of the problem later, but to be sure that this educational goal is with-



in the reach of you and your children, a groundwork of systematic saving should be laid right now.

What better way to save for the future than through U.S. Savings Bonds and Freedom Shares. They have a special combination of features making them uniquely suitable for an education fund—either for you or for your children.

Savings Bonds and Freedom Shares have the safety of a government guarantee; adaptability to a long-range goal while still being readily available for any emergency; an assured interest rate when held to maturity; easy availability through two automatic purchase plans; and important tax advantages.

All of these make it well worth your while to carefully consider using U.S. Savings Bonds and Freedom Shares as the base for your personal education fund. Whether you use them to augment the financial assistance you can receive for your own education or to provide that all-important college education for your children, they are a safe and sensible investment in the future.

Start this year off right and begin your personal savings program with U. S. Savings Bonds and Freedom Shares. All of the information is readily available from the Bond Office on your ship or installation. (AFPS)



PROMOTED — Lt. Alec R. Blunden was recently promoted to the rank of lieutenant commander during a brief ceremony in Capt. M. R. Etheridge's office. Mrs. Blunden assisted the commander in pinning on the new shoulder boards. Lt. Blunden is a member of the Military Liaison Officers' staff, assigned as Operations Officer and Test Conductor in the Systems Development Department.

COURSE SCHEDULE — SPRING 1969

(Continued from Page 8)

READING COURSES

7780 Reading Comprehension (CTB)
Grades 5-6 content
Reference Skills-Library
Following Directions
Reading Interpretation I
Reading Interpretation II
Reading Comprehension (CTB)
7781
Grades 7-8 content
Reference Skills-Library
Following Directions
Reading Interpretation I
Reading Interpretation II
7781D

BUSINESS EDUCATION COURSES

7791 Effective Business Letters
7794 Effective Secretarial Practices
7791C* **BASIC COMMUNICATION SKILLS**
Theory and practice of speaking and writing
7791C-1* Communications Theory
7791C-2* Oral Communications
7791C-3* Written Communications
7791E **HOW TO WRITE EFFECTIVE REPORTS**
Guidelines in format and style of written reports

MANAGEMENT DEVELOPMENT COURSES

7798 Effective Executive Practices Series (A Long Course, 6 reels)
7798A Effective Decision Making
7798B Effective Organization Practices
7798C Effective Planning
7798D Effective Delegation Practices
7798E Effective Managerial Control
7798F Effective Use of Executive Time
7798 Effective Practices (A Short Course)
Introduction to PERT

MISCELLANEOUS COURSES

7745 Map Reading, 2 reels, Color
7746 How to Write an Intrinsic Program
7799 Blueprint Reading and Shop Mathematics (7 reels)
7799A Introduction to Blueprints and Their Uses. Shop Mathematics with Whole Numbers (1 reel)
7799B Blueprint Views and Scales. Shop Mathematics with Fractions (1 reel)
7799C Sectional Shop Mathematics with Decimals, Percentages and Measurement (2 reels)
7799D Shop Mathematics with Ratio and Proportion (1 reel)
7799E Threads, Pulleys, Gears and Cylindrical Objects. Shop Mathematics with Micrometer and Vernier Calipers (1 reel)
7799F Methods of Troubleshooting (1 reel)

MATHEMATICS COURSES

7722D Math Introduction and Slide Rule Fundamentals (3 reels)
7722A Slide Rule Fundamentals (2 reels)
7721 Introduction to Computer Main
7720 Introduction to Algebra
7726 Trigonometry (2 reels)
7725B Career Arithmetic (8 reels, includes Nos. 7725 to 7725D)
7725 Fractions: A Review Course
7725A Whole Numbers (4 Reels)
7725B Decimals: A Review Course
7725C Percentages: A Review Course
7725D Ratio and Proportion
7727 Basic Statistics
7730 Arithmetic Fundamentals (CTB Grade 5 content)
7730A Addition
7730B Subtraction
7730C Multiplication
7730D Division
7731 Arithmetic Fundamentals (CTB) Grade 6 content
7731A Addition
7731B Subtraction
7731C Multiplication
7731D Division
7732 Arithmetic Fundamentals (CTB) Grades 7-8 content
7732A Addition
7732B Subtraction
7732C Multiplication
7732D Division
7733 Arithmetic Fundamentals (CTB) Grade 9 content
7733A Addition
7733B Subtraction
7733C Multiplication
7733D Division
7734 First Year Algebra, Number Systems, Vol. I
7735 First Year Algebra, Number Systems, Vol. II
7736 First Year Algebra, Number Systems, Vol. III

ENGLISH COURSES

7791 Effective Business Letters
7790 Career English (8 reels, includes Nos. 7790A to 7790H)
7790A Improving Your Punctuation
7790B Improving Your Writing
7790C Grammar and Usage: Sentences, Nouns and Pronouns
7790D Grammar and Usage: Verb Usage
7790E Grammar and Usage: Modifiers
7790F Grammar and Usage: Sentence Completers, Phrases, Sentence Types
7790G Grammar and Usage: Sentence Fragments, Run-on Sentences
7792 Mechanics of English (CTB) Grades 5-6 content
7792A Sentence Patterns
7792B Verbs, Modifiers, and Pronouns
7792C Capitalization
7792D Punctuation
7793 Mechanics of English (CTB) Grades 7-8 content
7793A Sentence Patterns
7793B Verbs, Modifiers and Pronouns
7793C Capitalization
7793D Punctuation

COMPUTER COURSES

7721 Introduction to Computer Math
7795 Computers (4 reels, includes Nos. 7795A to 7795D)
7795A A First Course in Programming
7795B Techniques in Programming
7795C Advanced Techniques in Programming
7795D Business and Scientific Application

HOME STUDY COURSES AND CAREER PROGRAMS

Enrollment in the following courses starts immediately. Submit a NOTS enrollment 12410/28 to Code 654. For further information call extension 72648 72686.

No. 100—Basic Arithmetic—30 Hours

This course includes positive whole numbers, common fractions, decimals and percentages.

No. 105—Basic Drafting—54 Hours

This course includes the use of tools and materials, geometry of drawing, lettering, orthographic projections, pictorial projections, descriptive geometry.

No. 105—Basic Craft Tools—40 Hours

This course includes instruction in the use of common hand and power tools, fastening devices, measuring, laying-out, testing, grinding, metal cutting, and safety precautions.

No. 110—Fundamentals of Machinery

This course is intended to impart a basic knowledge of the applied use of physics in the mechanical field from the simple to the complex machines. A knowledge of the Fundamentals of Machinery should be a requirement for any person entering the mechanical field. Review of mathematics; levers; block and tackle; wheel and axle; inclined plane and wedge; the screw; the gear; work power force and pressure hydrostatic and hydraulic machines; machine elements and basic mechanisms; internal combustion engine; and, basic computer mechanisms.

No. 111—Basic Principles of Electricity—25 Hours

This course includes an introduction to electricity, voltage, current, resistance, and magnetism and electromagnetism, sources of electricity, energy and capacitors.

No. 112—Basic Control Theory — Control Circuits—40 Hours

This course includes a study of basic control theory, electronic control circuits, pneumatic control circuits, electric control circuits and an introduction to instrumentation.

No. 115—Basic Water & Sewage—36 Hours

This course includes sources of water, and impurities, elementary arithmetic, elementary hydraulics, fundamentals of water and sewage chemistry, personnel safety, records and reports.

No. 116—Basic Boiler Feedwater Manual

This course is designed to provide the Boiler Operators, Boiler Inspectors, and Maintenance Personnel, with a working knowledge of the basic rudiments of boiler-feedwater. It presents a guide for the proper day-to-day controlled care and treatment of boilers and their related equipment.

No. 117—Basic Automotive Maintenance and Repair

Included are handtools, measuring tools, portable power tools, shop equipment, and automotive hardware. Information on proper procedures for soldering wires and connections is also presented.

No. 130—Basic Heating and Maintenance

This course is designed to give practical information and problems about the installation, operation and maintenance of heating facilities and systems.

No. 140-A and 140-B—Plumbing

Planning and lay out; plumbing tools; sewer systems and waste disposal; structural openings, building drains, and main vents; routing-in vent and waste lines; cutting, calking, and threading pipe; and, testing and repairing waste systems.

No. 185—Supervision & Management for Navy Civilian Personnel

This is an updated version of the course, "Fundamentals of Supervision for Navy Civilian Personnel — Home Study Course."

No. 211—Intermediate Electricity (Alternating Current)
Series and parallel alternating current circuits; inductance; capacitance; motors; generators; transformers, and instruments are discussed in this course. A knowledge of mathematics to the level of trigonometry and completion of Course No. 212 are prerequisites for this course.

No. 212—Intermediate Electricity (Direct Current)

Beginning with the fundamental concepts of electricity this course includes simple series and parallel DC circuits; compound and bridge circuits; conductors and wiring techniques; motors; generators, and indicating instruments. Knowledge of basic algebra is a prerequisite to this course.

No. 215—Intermediate Course Water—40 Hours

This course contains information on water supply and water works, development and water sources, pumps and metering. A prerequisite to this course is No. 115, Basic Water and Sewage.

No. 216—Intermediate Course Sewage—40 Hours

Introduction, sanitary sewage, collection system, sewage pumps and metering are included in this course. Prerequisite to this course is No. 115, Basic Water and Sewage Course.

No. 217-A and 217-B—Intermediate Automotive Maintenance and Repair

Gasoline and diesel engine fuel systems; cooling systems; lubrication systems; ignition systems; starter and generator systems; and, auxiliary electrical systems and other accessories.

No. 230—Intermediate Heating & Maintenance

This course contains information on warm-air heating; domestic hot-water heating; high-temperature hot-water heating; feed-water, condensate and pump systems; steam plants and steam distribution.

No. 315—Advanced Course Water—72 Hours

This course is a general introduction to preventative maintenance, laboratory control methods, water treatments, distribution systems, valves and storage. Prerequisites are No. 115 Basic Water & Sewage Course and No. 216 Intermediate Course Sewage.

No. 316—Advanced Course Sewage—72 Hours

This course includes a study in preventative maintenance for equipment, preventative maintenance practices, sampling methods, laboratory tests and procedures, sewage and industrial waste principles, sewage and industrial waste equipment and treatment and refuse disposal. Prerequisites for this course are No. 115 Basic Water and Sewage Course and No. 216 Intermediate Course Sewage.

No. 317-A and 317-B—Advanced Automotive Maintenance and Repair

Brake, wheel, and chassis test equipment; scope motor tester; other diagnostic test equipment; maintaining gasoline and diesel engines; maintaining fuel, cooling, and lubrication systems; and, maintaining electrical systems.

No. 402—Training and Career Development Program Guide for Utilities Operating, Maintenance and Supervisory Management Personnel

The objective of this program guide is to define a career ladder structure by which employees in any and all utilities ratings may prepare, through progressive study and job application, for advancement to career target position, from other to Master Mechanic.

No. 403—Training and Development Program for Maintenance Control Personnel, Planners and Estimators, and Maintenance Inspectors

The objectives of this program are threefold:
a. To encourage and motivate eligible journeymen to compete for Planner and Estimator and Maintenance Inspector positions.
b. To provide immediate training and development to update the knowledge and skills of on-center Planners and Estimators and Maintenance Inspectors.
c. To train potential Planners and Estimators and Maintenance Inspectors — personnel on established registers for the position.

The plan may be applied at three levels of participation:
a. Level 1 participants should be incumbent Planners and Estimators and/or Maintenance Inspectors where this latter rating is used.
b. Level 2 participants should be on-center personnel who

have qualified for promotion to maintenance control occupations by passing competitive examinations.
c. Level 3 participants should be on-center journeymen who have not qualified via competitive promotion examinations.

An explanation of how the plan is to be used for each level of participation, with a general outline of the training required at each level, is offered in this manual.

UCSB

SCHEDULE OF CLASSES

NATURE OF THE PROGRAM — These courses are taught by personnel from NPOLA. The subject matter is directly related to Government Contract Administration at NWC. If participants wish they may apply for a certificate in Government Contract Administration after successfully completing eight of the planned courses.

REGISTRATION — Submit a completed Course Enrollment Form 11ND/NOTS 12410/28 to Code 654. Specific starting times will be announced at a later date. For further information contact Code 654 on extension 72648.

Government Contract Negotiation Seminar X408.03

Dates: 14, 15, 21, 22, 28, 29 March-4 & 5 April, 1969

Times: 1900-2300 Fridays; 0800-1300 Saturdays

Location: Room 211, Training Center

Instructor: Martin Glass, Assistant Counsel NPOLA

SCOPE: An intensive study of defense prime contract and subcontract negotiation with emphasis on management rather than legal considerations. Defense marketing, pre-contract coverage, and the negotiation of all types of cost and fixed price contracts including multiple cost, performance, schedule, PERT, and interdependent incentives. Negotiation of profit, changes, terminations, claims, and appeals. Emphasizes the team concept of negotiation and interfaces among the technical program, administrative and financial operations. Case analysis.

Elements of Government Contract Administration X408.01

Dates: 9, 10, 16, 17, 23, 24, 30 & 31 May, 1969

Times: 1900-2300 Fridays; 0800-1300 Saturdays

Location: Room 211, Training Center

Instructor: Martin Glass, Assistant Counsel NPOLA

SCOPE: Basic contract law, including the formation of and performance of contracts, along with rights and remedies. Emphasis on peculiarities of Government Contract law. The forms of U.S. government contracts and the advantages and disadvantages of each. The Armed Services Procurement Regulations, emphasizing sections III and XV. Practical problems related to the preparation of a proposal. Negotiated procurement distinguished from advertised procurement. The negotiation of a government contract and a review of the characteristics of performance — changes in scope and terminations. Other current problems.

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The Rocketeer

Official Weekly Publication
U. S. Naval Weapons Center
China Lake, California

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NWC Commander

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Phones 71354, 71655, 72082



DIVINE SERVICES

Protestant (All-Faith Chapel)—

Morning Worship—8:15 and 11 a.m.

Sunday School—9:30 a.m., Chapel Annexes 1, 2, 3, 4 (Dorms 5, 6, 7, 8) located opposite Center Restaurant.

Roman Catholic (All-Faith Chapel)—

Holy Mass—7, 9:30 a.m., and 12:30 p.m. Sunday.

Daily Mass—11:30 a.m. in Blessed Sacrament Chapel. Saturday, 8:30 a.m.

Confessions—7 to 8 p.m. Saturday.

NWC Jewish Services (East Wing All-Faith Chapel)—8 p.m. every first and third Friday.

Sabbath School—10 a.m. to noon, every first and third Saturday.

Unitarian Fellowship—(Chapel Annex 95, 95 King Ave.)—Sundays, 7:30 p.m.

THE LOCKER ROOM

RIMSHOTS

BY ED RANCK



It's all over now, including most of the shouting, but underdog lovers everywhere will have a year to gloat over the Jet's victory in the Super Bowl. If NFL fans have to listen to their heroes referred to as the "other league" or the humpy circuit during the next 12 months, then they will get some of the extreme mental torture that AFL fans have been subjected to during the past nine years. Actually the AFL may not have caught up as yet, but prestige-wise it has arrived.

Several interesting points were brought out following the game that may have gone unnoticed by many. It has been estimated that the Jet's victory will be worth about \$7 million to the AFL and NBC. NBC figures to make \$3 million by upping their commercial price tag by something like \$5,000 per minute. The other \$4 million will be picked up by the league and its players because of increased attendance, higher salaries and endorsement fees, etc.

The emergence of Joe Namath as the hero of the Super Bowl seems to have disturbed a lot of people. It would appear that a loser with a big mouth can be tolerated, but a winner who speaks his mind is un-American. Had Namath told it like it ain't in the weeks prior to the big game, doubtless he would have remained in everyone's good graces.

SHADES OF MUHAMMAD ALI

It all reminds you of the Cassius Clay affair a few years ago. Clay was another extroverted soul who failed to show proper respect for the press. You wonder what the world is coming to. When a guy wins big and doesn't tell the sportswriters, "gee, gosh it t'warnt nuthin'," you can see the foundations of our society start to crumble. One aspect that has to be considered is that a championship caliber quarterback is a commodity that is worth about \$1 million to his organization. Sportswriters can be had for slightly lower rates.

It is true that while Namath is in the spotlight he should probably exercise a bit more prudence rather than continually blast those who thought he couldn't pull it off. After all a lot of people who wrote that Joe couldn't do it were quick to praise the man on Monday morning.

To drive the whole thing a bit further into the ground, we now hear that Namath is setting a bad example for the youth of America. It seems that if Joe doesn't cut his hair and chop off his sideburns, he is going to turn all of our hero-worshipping kids into hippies. My my!

MDISL TOURNAMENT

While the parents of the world figure out how to deal with drug addiction, permissiveness and Joe Namath, the China Lake sports program continues. The 1969 MDISL basketball tournament is underway at the Center gym and action will continue through tomorrow evening. A minimum of 12 games are being played in the event.

The dreaded Norton club plays their first game this afternoon against either China Lake or 29 Palms, depending on which of the two won yesterday. There will be at least four more games on the schedule tomorrow and the championship game should occur at about 7 p.m.

The local ball club ended their training period last week, splitting a pair with Barstow. In Friday's game China Lake won by six, 83-77. This was a rough contest, not the kind of ball that China Lake's midgets can expect to play and win. But for about five minutes during the game the club ran extremely well, and if Dwight Bartlett can keep the boys moving like that this weekend, they could finish well up in the standings.

WOMEN'S FITNESS PROGRAM

Judging from the activity at the gym every afternoon and evening, you wouldn't think that China Lake's Athletic Director, Bill Milligan, was having any trouble getting people to use the place. But apparently one of the programs is starting to slip a bit, that being the women's physical fitness classes. For those who haven't heard of the program we will pass on the basic information.

Each Monday evening is ladies night beginning at 6 p.m. The physical fitness program is a combination of a calisthenic period followed by an hour or so of organized sports. Also offered in the program are swimming lessons, although participants don't have to be novices in order to use the pool facilities.

Although it's all well organized, those who participate don't have to stick to any rigid schedules or meet any specific goals. The class has been in operation for over two years now, and in the past has been one of the more popular events in the sports program. Anyone desiring further details are requested to contact Milligan at extension 72017.

CHAPARRAL NEWS

"The Gents" will be the featured attraction at Club Chaparral on Friday, January 24 from 9 p.m. until 1:30 a.m.

Memberships are now open for qualified government civilian personnel. Those interested in membership should contact Mike Weinberg, manager, at Ext. 72274.



BURROUGHS CAGERS — The local high school basketball varsity cadre faces a tough test tonight against Palmdale, in what may become a scramble for a share of the Golden League title. Palmdale is still undefeated after four goes, while the Burros

are 2-2 on the regular season. The varsity game starts at 8 p.m. Pictured above are (l-r) John Spooner; Mark Barkemeyer; Mark Moore; Ted Bachman; Steve Quinton; Gary Dabbs; Coach Bill Moore, and Darrell Scott, who will be on hand for the action.

All In Basketball

The Loewen's Falcons began their drive for a fifth consecutive China Lake Basketball League title last week, winning three games to move into first place as the league's schedule passed the halfway point. The Falcons downed the Hustlers and NAF, then scored an impressive 73-55 win over Ace TV Tuesday evening to take a one game lead in the race. The win was the seventh straight for the defending champions following an opening game loss to Ace.

Four men hit in double figures in the Falcons win over Ace. Henry Coates and Herb Rizzardini led a first half charge as Loewen's opened up a 37-21 halftime lead, each hitting eight points during the half. Gary Jacobs hit 12 points and Jim Ayers had 10 as the Falcons put the game away in the second half. Ayers finished as high man for Loewen's with 18. Ken Burke led Ace with 24 points while Tim Higgins had 13.

The Falcons outscored the Hustlers 40-19 in the second half to break open a tight ball game, and coasted to a 75-49 victory over the tailenders. Tom Mather and Bruce Fagaly each had 8 points in the third period as Loewen's opened up a 16 point lead. The Hustlers had closed the gap to 35-30 just prior to the end of the first half. Coates was high man for the Falcons with 17 points and Fagaly had 14. Don Kinney of the Hustlers led all scorers with 22 points.

Loewen's downed NAF 74-57 and all but ended the Hawks title hopes. It was the fourth loss of the year for NAF who had moved into contention following a three game winning streak. Jacobs was high man for the Falcons with 16 points and Ayers had 15. Jerry Heins led the Hawks with 20 and Kit Carson had 17 points.

The VX-5 Vampires won a pair of games, each by one point, to move into second (Continued on Page 12)



PAUL H. AMUNDSON

Paul H. Amundson has been notified by Montana State University at Bozeman that he will be awarded a Master of Science degree in Physics.

Amundson received his Bachelor of Science in Physics at Montana State University in June, 1963 and came to NWC as a Junior Professional shortly thereafter. He returned to Bozeman in the fall of 1966 to begin his studies toward the Masters, aided by a graduate assistantship in physics tendered him by the University.

In the course of that year he applied for and was awarded an NWC Fellowship for the subsequent 1967-68 academic year. He returned to China Lake to full-time employment in September of this year, completed his thesis and took the written examination here.

Amundson was a member of the Advanced Systems Branch of the Weapons Development Department until recently. He is now a member of Branch C of that department's Weapons Systems Analysis Division. He and his wife Jean and daughter Kara Christine reside at 313-A Fowler Street.

If a girl really likes a man money doesn't make any difference. Unless, of course, he doesn't have any.

All In Bowling

A total of 24 200 games were rolled in the Premier League last week as the race for first place continued to be tight in the Center's top league. Blue Bird Taxi hit a 2869 team series and moved into a two - game lead over NWC Tom's Place and Vivian Woodard. It was the biggest lead that any team has been able to establish since the league opened in September.

Joe Kokosenski led all bowlers, hitting games of 225-249 enroute to a 640 series. Allen Smith also broke the 600 mark with 226-218 and a 611. Top individual games included Dan Branson 245; Rob Sickles 232; Bob Owens, Chuck Albright and Don Livinston all at 225 and Robin Fuller 223.

In the Women's Monday Scratch League, Sandy Smith was red-hot hitting a 742 single game and 530 series. Pat Maddux had high series with 557 and Dottie Klamt was next with 211-531. Other top series included Lee Fox 516; and Willie Johnson; 513. Pat Maxwell was also over the 200 mark with 203.

In the Women's Wednesday Handicap League, the Splinters had high team game with 981 and the American Legion took series honors with 2760. Betty Kirwin had high series with 508 and Laurie Halen was next with 502. Marlene Green rolled the high game, a 195.

Rocky Brady led the Desert League last week, hitting a 224 and 600 to take single game and series honors. Don Powell had 216-218 and 593 while Jerry Whitnack rolled 207-587. Top single games included Dick McLaughlin 220 and Dick Halen 220. Ridgecrest Automotive maintained their hold on first place and took team game and series honors with 1075-3101.

In the Thursday Afternoon Trio, Sallie Stephenson rolled high series hitting a 509 and Helen Allen had high game with 189.

Kern County Art Festival To Be Held at NWC Community Center

Plans are underway for the area show of the Kern County Art Festival which will be held at the Community Center on April 19 and 20. The purpose of the Art Festival is to encourage the practice and appreciation of original art at all levels, from kindergarten through adult ages.

Rules and regulations for the County Art Festival are formulated by the Kern County Parks and Recreation Department, the sponsors of the yearly event. The entire County is divided into 11 areas, and blue ribbon winners from the area show here will compete with other area winners at the County Finals in Bakersfield in May. School children enter through their schools and schools in this area have information about the show.

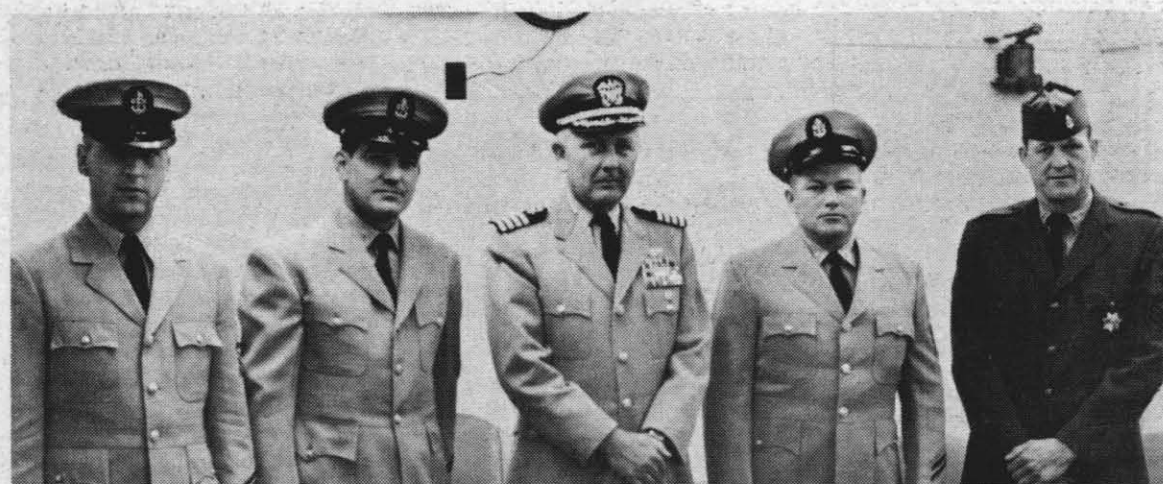
Adult amateurs who qualify as residents of Kern County enter by filling out the application blank and returning it to the Kern County Parks and

Recreation Department before March 1.

Rules and application blanks are available at the Center Library as well as the Ridgecrest Library. Professional artists do not compete in the local show, but there is competition at the County Finals. Professionals wishing to compete at Bakersfield must also fill out the application blank and submit it before March 1.

The show is two-dimensional and all work must have been done within the past year. Work must be original and copies from other artist's works, magazine and newspaper photographs, and other material are not eligible for the competition. If the artist has taken his own photograph, the photograph may be used as reference.

The Desert Art League is in charge of the area show and J. J. Durk is show chairman assisted by Maxine Booty as co-chairman.



ADVANCEMENT IN RATES — Capt. L. A. Dewing (c), Commanding Officer of the Naval Air Facility, presented certificates of appointment January 16, to three men en-

tering the ranks of chief petty officer: (l-r) AGC L. S. Corbett, AMSC R. J. O'Brien, and YNC D. Barrett. ABCM F. W. Lawrenz (far right), the CMAA, also attended.

Library Re-opens After Facelift

The newly remodeled and redecorated Center Library will have an official opening from 10 to 12 noon on Thursday, January 30. All residents of the Indian Wells Valley are invited to attend the event.

Renovation of the facility has permitted an increase in the usable amount of total floor space, which now comprises a total of 4,840 sq. ft.

In addition, the Library has been remodeled to include better lighting facilities, more space in which to store more documents, and increased "working" areas for referencing and research.

The Library currently houses a collection of 28,000 volumes, and subscribes to 93 magazines and 18 newspapers. Phonograph records in 18 for-

eign languages are also available in the inventory.

The staff of the Library is headed by Mrs. Maryon Ward, who is a Library Science graduate of the University of Oklahoma. Maryon has been part of the Library for the past six and one-half years. Other members of the staff include: Betty Wilkie; Leola Skeeters; Jane LaRosa, and Winifred Trov.



POST OFFICE? — The spaces of the Center Library have been extended to the south of their present building, thereby increas-

ing the usefulness of the facility by about 100 per cent. This new section was badly needed.

Forty-Niners Hold Meeting at Center



DEATH VALLEY FORTY-NINERS — The first meeting of 1969 for the Death Valley '49ers was hosted by the Naval Weapons Center last Friday and Saturday. The group was feted also at a no-host cocktail

party at the Commissioned Officers' Mess (Open) on Saturday night. The '49er group meets bi-monthly and is dedicated to perpetuating western pioneer and historic observances.

Boy Scouts Hold Court of Honor

Court of Honor award ceremonies recently held in the East Wing of the All Faith Chapel capped a successful fall and winter season of activities and advancements for the members of Scout Troop 41 of China Lake. Scoutmaster Steve Carter and Committeemen Nick Kleinschmidt and Leroy Ogan led the presentations of new rank insignia, merit badges and other awards.

The coveted and hard earned rank of Star Scout was presented to James Backman and Chris Moore. Emblem of First Class rank went to Steve Schaniel. Second Class ratings went to Craig Weathersbee and Douglas Krausman. Roger Godett was awarded a Tenderfoot pin.

Merit badges were earned by Paul Nielsen, Richard Sound, Chris Moore, John Kleinschmidt, James Backman, John Di Pol, Steve Schaniel, Garth Weals, Robert Henry and Greg Moore. Warrants as Troop officers were issued to Junior Assistant Scoutmaster Nelson Sorbo, Senior Patrol Leader

Richard Sound, Assistant Senior Patrol Leader Wayne Shull, Librarian Jeff Hamm, Scribe Mike Sound, Quartermasters Chris Moore and John Kleinschmidt and Instructors Greg Moore, Robert Henry and Randy Gould. Patrol Leaders are Robert Mills, John Di Pol, Tim Finnegan and James Backman. Steve Schaniel, Mike Ogan, Scott Fifer and Garth Weals are Assistant Patrol Leaders.

A number of Service Stars were issued, which included an award to Nelson Sorbo for five years of service with the troop.

Mr. Gene Richardson of the local VFW Post presented a certificate to Scout Lee Ellis in recognition of his participation in the Post's ceremonial activities.

Troop 41 is one of the oldest Scout units at China Lake and has been in continuous service for over 20 years. Sponsored by the Protestant Congregation of the All Faith Chapel, the troop meets every Wednesday evening at the Scout Hut on McIntyre Ave.



SCOUT'S HONOR — Gene Richardson of the local VFW Post presented a certificate of appreciation to scout Lee Ellis, during the recent Court of Honor, in recognition of his participation in the Post's ceremonial activities. Lee is a member of Troop 41 and the son of Mr. and Mrs. Leroy Ellis of China Lake.

Brass Quintet Offers Next Concert



THE AMERICAN BRASS QUINTET

The American Brass Quintet, a unique ensemble of virtuoso instrumentalists devoted to brass chamber music, will present the third concert of the China Lake Civic Concert Association's series on Wednesday evening, January 29, at 8 p.m. at the NWC Theater.

Members of the Quintet and their instruments are: Robert Biddlecome (bass trombone), Edward Birdwell (French horn), John Eckert (trumpet), Arnold Fromme (tenor trombone) and Gerard Schwarz (trumpet).

16th Century Sound
Chamber music for brass instruments is not necessarily a product of the 20th Century. It was in existence during the 16th, 17th and early 18th Centuries. The decline of brass chamber music was coincidental with a dramatic change in musical fashions with the violin, flute and oboe undergoing a phenomenal development.

As interest in these new instruments arose, the brasses went into an eclipse that lasted for over 200 years. During the last half of the 19th Century, encouraged by the invention of valves and other instrumental refinements, brass playing awoke from its long dormant state. This again was coincidental with a change in musical styles and the exuberance brought on by the Romantic period.

During the two World Wars major composers such as Poulenc, Villa-Lobos, and Hindemith showed an interest in the medium. After World War II,

the renaissance of the brass quintet made rapid strides, as did the music for brass.

Inspired by the ever growing interest and amount of literature available, The American Brass Quintet was born in 1957. The group made its debut in New York in 1960 and it was not very long before the group began to receive engagements for concerts all over the United States and Canada. It gained recognition in the field of education where music departments were looking for something new to put beside the old.

The Quintet's popularity has been aided by their recordings, radio and television appearances as well as their concert tours. Their music can be found on five labels: C.R.I., Folkways, Nonesuch, Desto, and Serenus.

Broad Following

The Quintet's reputation spread to Europe and the group participated in three important international festivals in Italy, Wales and Yugoslavia. Following the festival appearances, the group toured the major cities of Europe as well as appearances in smaller cities where music is at the center of cultural activity. This past season, the group made a nine-week tour of the Far East sponsored by the U.S. State Department. After its current tour of western United States and Canada, the group returns to Europe this spring for concerts in Rome, Venice, Naples and Col-

Military Ball Scheduled For Comm. Center

The 1969 Annual Military Ball will be sponsored this year by Special Services. The gala event will be held on January 31 at the Community Center.

The Military Ball traditionally is for military only and their ladies. Last year's outstanding gathering featured, as guest of honor, the Master Chief of the Navy, Delbert Black.

A token charge of \$1, which will be used to defray the cost of door prizes, is asked of each military man that plans to attend. Divisional representatives will contact enlisted men, while Lt. Fant is charged with selling tickets to commissioned personnel.

The enchanted evening will include free baby care service, free drinks, and free dinners. The COMNAVAIRPAC Band will supply the music for dancing.

The planned festivities, which are set to begin at 6 p.m., promise a wonderful night for all the military. All are urged to attend.

WELCOME ABOARD



CDR. HARLAN D. PARODE — arrived recently to become Assistant Technical Officer in the Center's military liaison group, Code 14. Born in Los Angeles, California, Parode entered the Navy in November 1943 and received his commission in June 1950. He attended Gonzaga University, Spokane; University of Washington, Seattle; University of Michigan, Ann Arbor; U.S. Naval Academy, Annapolis; University of Maryland, College Park; Naval Postgraduate School; and the Naval War College, Newport, R.I. He has BS degrees in mechanical and aeronautical engineering and in science, and an MS in engineering. Prior to reporting to the Center, Parode completed the Defense Systems Analysis Course at the University of Maryland while attached to the Defense Economics Program, Wash., D.C. Previously he was commanding officer of VA 165, with duty in Viet Nam. Parode, his wife, Helen, and Steven, age 4½, and Andrea, age 3½, are living at 519 Ticonderoga on the Center.

Scouts Paste Glass Decals

Members of Boy Scout Troop 41 will distribute floral decals to Site A Capeharts on Saturday and Sunday, January 25 and 26. The Scouts will apply these decals to the stationary panels and sliding glass door as visual warnings that the door is closed.

This community service and safety project is being performed in coordination with the NWC Housing Office, Public Works and Safety Department.

Distribution of these same decals was made in the Site R Capeharts last November. The houses that were missed at that time will be re-contacted this weekend.

Promotional Opportunities

(Continued from Page 2)

year of specialized experience and 1 year of specific experience. For GS-11, and 12 applicant must have two years of specific experience. Specific experience is experience as a Programmer, Computer Systems or Equipment Analyst or Computer Specialist.

Electronics Technician, GS-3, 6, 7, 8, 9, 10, or 11, Code 3026 — These positions are located in the Echo Range Operations Branch, Range Operations Division, Systems Development Department. The Branch's operations are conducted exclusively at Randsburg Wash, which necessitates government transportation to and from the operating area. The incumbents will be required to function as operator/maintenance technicians on complex radar and instrumentation systems. They must have a sound understanding of the theory of CW and pulse radars and be able to effectively utilize the test equipment and procedures required to obtain designed performance. They must have specialized experience in radio, radar, microwave, digital data, computer, and servo-mechanism systems. There are approximately NINE electronics technician positions open at this time.

Test Mechanic (Experimental Electronic Equipment), WB-12, Code 3026 — This position is located in the Echo Range Operations Branch, Range Operations Division, Systems Development Department. The Branch's operations are conducted exclusively at the Randsburg Wash which necessitates government transportation to and from the operating area. The incumbent will be required to operate, test, calibrate and repair electronic equipment of complex radar and instrumentation systems. He must have a sound understanding of solid state circuitry and digital devices to enable him to fabricate electronic circuitry in both "breadboard" and finished line devices as prescribed by senior electronics technicians or system engineers.

File application with Fayn Haycock,

DANIEL WEBSTER

"God grants liberty only to those who love it, and are always ready to guard and defend it."

Speech (June 3, 1834)

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NAACP Holds Open Forum At Center

On January 16, 1969, the NAACP, in cooperation with the Naval Weapons Center, sponsored an open forum discussion of Equal Opportunity topics of concern to residents of the China Lake and Ridgecrest communities.

The principal panelists, all members of the NAACP, included James R. Jefferson, President, Milton H. Ritchie, James H. Lewis, Daniel Brown, Ted Dickson, and Emanuel M. Dunn.

After making initial presentations on various areas of concern, the principal participants entertained questions and comments from the audience of more than 60 persons.

Included in this interested and active audience were Captain Robert Williamson II, Naval Weapons Center Executive Officer, H. G. Wilson, NWC Deputy Technical Director, Raymond A. Harrison, NWC Personnel Officer, Harold Metcalf, Chairman of the NWC Equal Opportunity Committee, J. M. McGlothlin, Head, NWC Community Relations, a contingent of visitors from the NWC Corona Laboratories, and interested members of the China Lake and Ridgecrest communities.

Topics discussed included Advancement of Non - professional Employees at NWC; Summer Youth Employment; Area Housing; Area Schools; General Employment Opportunities; On The Job Attitudes Towards Minority Group Members; and the Naval Weapons Center Affirmative Action Plan.

Captain Williamson II expressed the Center's desire for a continuation of this type of open discussion of areas of concern to the Center, its minority group members, and the community.

Information will be forthcoming in future issues of the Rocketeer on the mission and affirmative action plan of the Center's Equal Opportunity Program, and on the purpose, membership, and objectives of the Equal Employment Opportunity Committee.

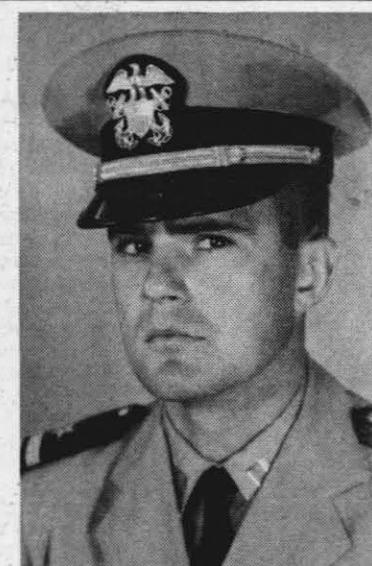
Sign Defacement Causes Concern

There has been an increase in the removal or defacement of traffic signs on the Center. This is creating some serious problems for the drivers.

In a survey made of the housing area, 14 traffic signs disappeared in the month of October. In another survey made in the Wherry housing area in January, a dozen signs had been defaced. Sixty-eight per cent of all of the signs giving the hours of street cleaning in the Capeharts have had to be replaced. In the Randsburg Wash area, several signs have been damaged by gunshot or sprayed with paint.

The Safety Department and the Safe Driving Council are concerned that accidents may occur as a result of the removal or defacement of these traffic signs.

The community is reminded that they can assist in reducing vandalism by reporting to Security whenever anyone is seen tampering with or defacing traffic signs. If offenders are apprehended, they will be cited into court and penalized.



LT. JAMES WALKER has recently reported for duty with VX-5 as a project officer. He was previously stationed in Viet Nam as a helicopter pilot with the Sea Wolves, HA(L) THREE. Lt. Walker and his wife, Fran, have three children: Seane, Sheryl, and Andy. A favorite activity of the family is working with the Doberman pinschers they raise and train. The Walkers live at 1807-B Withington, China Lake.

Red Cross Group Offers First Aid Instruction

A Red Cross standard first aid class is now being offered, and will be taught for five weeks starting January 30.

It will meet each Thursday from 1900 to 2100 hours in the Safety Building, corner of Nimetz and Hussey.

Instructor John Ohl states preregistration is not necessary.

In addition to the above, the registration and the preliminary swimming test for the Red Cross life-saving and water safety class will be offered at the NWC pool at 7 p.m., January 28.

The actual 16-hour water safety class will be taught each Tuesday and Thursday evening. Those interested must be at least 15 years of age and have passed the 10th grade. Adults are especially welcome.

At the completion of the life-saving course, water-safety-instructor, water - safety-aide classes, and instructor-review classes will also be offered.

For further information on any of the classes call instructor Carol Chatterton at 725864.



America needs your help

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DEF Voting Memberships Being Sold

Individual voting memberships in the Desert Empire Fair, good for an entire year of benefits, are now available and may be obtained at just \$1 each by calling Betty Taylor, membership chairman, at NWC ext. 725373.

As in previous years, books of receipts with correspondingly numbered wallet cards will be issued to organizations who may realize for their own treasures 10 per cent of all sales made by their personnel, and 25 per cent of those sold to their own members.

Benefits attached to annual voting memberships, as well as to lifetime memberships which are still offered at \$35, include (1) One vote for four directors elected at the end of each year to the governing board; (2) Free admission to the Fair at any time during its five days of operation; (3) Active support of the community-owned festival and a share in its growing renown, and (4) Another donation for tax-deduction purposes.

The DEF Board of Directors and Advisory Council of Clubs encourage early purchase of these memberships so that the funds thus received may be put to use in improving the Fairgrounds Park, making it ever more desirable as a year-round recreation and meeting center for the people of Indian Wells Valley and visiting groups.

Membership books will be distributed at the next meeting of the Council, Monday, January 27 in the Knights of Columbus Hall, starting at 7:30 p.m., and checks will be delivered to those clubs who have not yet received their commissions on last year's sales.

Lake Mutual Aid Society Elects Officers

The annual meeting and election of officers for the Government Employees Benefit Association and the China Lake Mutual Aid Society will be held Wednesday, January 29 at 7:30 p.m. in the Community Center. All members are urged to attend.

Ceramics Shop Announces Operating Hours

The Ceramics Hobby Shop is now open on Tuesdays and Fridays from 11 a.m. until 4 p.m., and is open evenings on Monday, Wednesday and Thursday from 6 p.m. until 10 p.m. announces Mrs. Aline Schad, manager.

Mrs. Schad invites all military and civilian memberships to browse around the shop in the mornings while she is working. Supplies can be purchased and finished pieces may be picked up at that time.

Plans for the ceramic shows to be held in April and May will be announced soon. Those desiring to enter the show are urged to purchase greenware early in order to have their entry ready by show time.

Mrs. Schad may be contacted at the Ceramics Hobby Shop, Ext. 72942, or at her residence, 375-2571.

Marine Sgt. Beatty Retires



RETIRES AFTER TWENTY-TWO YEARS — MSgt. George J. Beatty, was presented the NWC plaque by Capt. R. Williamson, II, NWC Executive Officer, during ceremonies held recently at the CPO Club. Beatty's retirement from the Marine Corps ended 22 and one-half years of service to his country. He has been at the Center since July 1965 and was an ordnanceman with the Marine Corps Liaison Office. The Beattys and their three sons will not return to hometown, Philadelphia, Pennsylvania, but have decided to make their home in Indian Wells Valley.

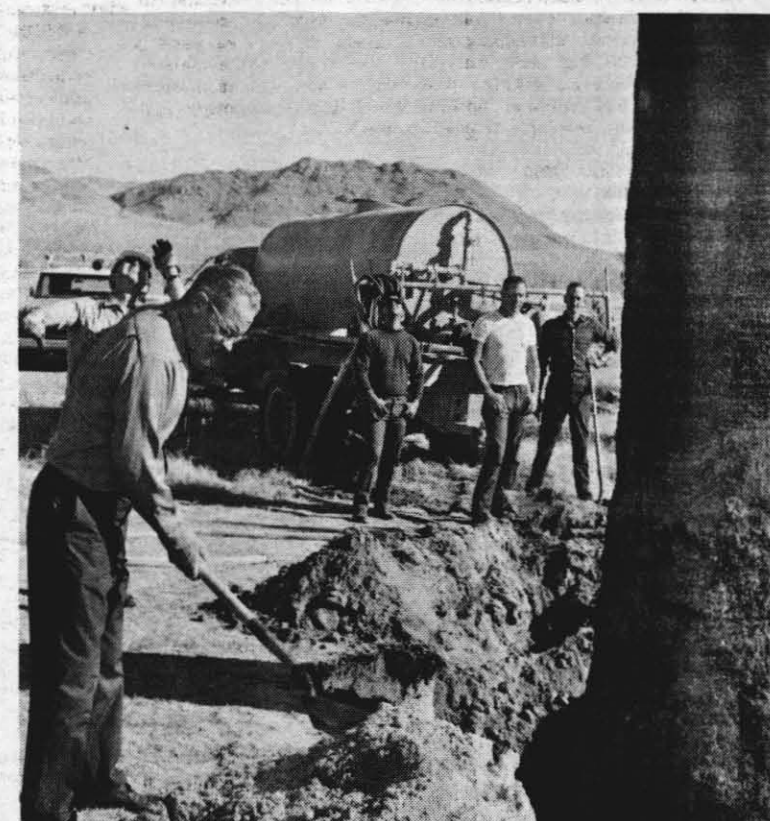
Career Woman Selection

Mariorie Reed, president of the China Lake Business and Professional Women's Club, has announced March 4 as the date for selection of the Young Career Woman who will represent the club in competition. At that time, candidates will make a two - minute presentation on their personal goals.

Criteria for choosing the young woman are that she must be: between the ages of 21 and 26 years; employed in business or the professions, with at least one year of work experience in her career area (she must be an actual career woman, not still a student — this does not preclude young

careerists who return to college after working a year or more); outstanding in scholastic work; community service and/or church work; living, working or returned to college in California.

Any young woman who meets the above criteria and who is interested in competing, or any person wishing to submit the name of a candidate, may obtain application forms and additional information by calling Mrs. Shirley Sims, Young Career Woman Chairman, at 375-5161 during the day or at Ext. 73301 after 6 p.m. Deadline for accepting applications is February 21.



GOLF COURSE GETS NEW LOOK — General Foreman Jim Greenfield is shown shoveling in the first pile of dirt that will form the new nesting place for a mature Washingtonia palm on the NWC Golf Course. 63 of the 35-foot trees will be spotted around the Center in the weeks to come. The trees were donated to the Center by the Kern County Land Co.



KEEPING FIT — Navymen aboard the U.S. aircraft carrier "Intrepid" compete in deck races to keep in shape during the bombing

pause called for in Vietnam by former President Lyndon B. Johnson. This picture was supplied by AFPS.

Computer Programming 104
Dates: 7-18 April, 1969
Times: 0800-1500

Location: Room 212, Training Center
Instructors: Staff members of Control Data Corp.

Prerequisites: This course is designed for anyone who wishes an initial introduction to maintenance programming. Completion of Course 101 or equivalent training is required for entry into this course.

SCOPE: To introduce the student to computer programming and to have the student apply this knowledge by successfully writing computer programs.

Upon completion of this course, the student will:
1. Become familiar with the various types of computer programs.
2. Be able to document and flowchart computer programs.
3. Learn the programming considerations for both variable and fixed word length computing systems.
4. Be able to write valid machine language programs.

Digital Input-Output Mediums 105

Dates: 21-23 April, 1969
Times: 0800-1500

Location: Room 212, Training Center

Instructors: Staff members of Control Data Corp.

Prerequisites: This course is designed for those persons who will be operating or repairing computer I/O devices and for other interested persons. Completion of Course 101 or other equivalent training is required for entry into this course.

SCOPE: To become familiar with the various digital input/output mediums and devices.

Upon completion of this course, the student will:
1. Be able to interpret the information of the various input/output mediums.
2. Become familiar with the construction and operation of the various input/output devices.

Logic Circuit Application 103

Dates: 28 April-1 May
Times: 0800-1500

Location: Room 212, Training Center

Instructor: Classroom instructors will be assigned on a subject basis from the technical staff of Control Data Corporation.

SCOPE: The objective of this course is to learn the construction of functional networks using basic digital circuits and to become familiar with the timing considerations in digital units. This course is designed for personnel who will be designing, constructing, or repairing digital units. Completion of course 102, Boolean Algebra, or equivalent training is required for entry into this course.

Upon completion of this course the participants will be able to (1) design and construct functional digital networks, and (2) analyze and repair problems in digital networks.

Digital Processor Units 106

Dates: 19 May-6 June, 1969
Times: 0800-1500

Location: Room 212, Training Center

Instructors: Staff members of Control Data Corp.

Prerequisites: This course is designed for the technical student who will be designing, constructing, or repairing digital units. Completion of course 101, 102, 103, 104 and 105 or equivalent training is required for entry into this course.

SCOPE: To obtain an advanced knowledge of computer processing unit design and construction.

Upon completion of this course, the student will be able to:
1. Design and construct memory, control, arithmetic, and I/O control units for digital processors.
2. Analyze and repair problems in memory, control, arithmetic, and I/O control units for digital processors.

Conference Leadership

Dates: 26-32 May 1969 (3 days)

Location: Room 101, Training Building

Time: 0800-1530

Instructor: Dr. George Lehner, UCLA

SCOPE: This is a specialized course designed for employees who conduct meetings, conferences, or orientation courses. It will provide knowledges and techniques of conference leadership with lecture, demonstration, and practice sessions.

Operations Research Lecture No. 4: Systems Analysis

Dates: 2-15 June, 1969

Times: 0800-1500

Location: Room 211, Training Center

Lecturer: Dr. Carl R. Jones, Associate Professor of Operations Research.

SCOPE: This course will stress the principles of systems analysis and their relationship to the Planning, Programming and Budgeting System and the traditional operations research models. The lectures will include an analysis of effectiveness measures and models, a study of cost models and of cost estimating and analysis techniques, and a discussion of risk and uncertainty problems. The participants will play a military game, which includes a participant designed planning, programming, and budgeting system involving cost effectiveness studies.

Hybrid Systems 108

Dates: 16-18 June, 1969

Times: 0800-1500

Location: Room 212, Training Center

Instructors: Staff members of Control Data Corp.

Prerequisites: This course is designed for the technical student who will be designing, constructing, or repairing hybrid computing systems. Completion of Course 101, 102, and 103 or equivalent training is required for entry into this course.

SCOPE: To familiarize the student with the integration of analog and digital computing units.

Upon completion of this course, the student will:
1. Be familiar with the characteristics and construction of both analog and digital systems.
2. Learn the methods for integrating analog and digital systems.

Measurement Instrumentation

Dates: To be announced

Instructor: To be announced

SCOPE: The purpose of instrumentation is to gather information concerning physical phenomena or to control a process in relation to the information. The information is either in analog or digital form.

Direct and simple mechanical measurement methods are possible; however, they do not lend themselves to high speed operation, remote control, and the versatility that electrical measurement methods do. Emphasis will be placed on electrical instrumentation.

Instrumentation can be divided into two main branches: measurement and control. Handling of the input quantity is of prime concern in measurement systems, the output quantity in control systems. Measurement systems will be the principal system discussed.

Vibrator & Shock Testing

Dates: To be announced

Instructor: Tustin Institute

SCOPE: This course is designed to develop an understanding of Vibration and Shock Testing methods. Input forces and motion; transducer analysis; the evaluation of various test devices; and amplifiers and controls for sinusoidal and random vibrations testing will be covered.

JOURNEYMAN & TECHNICIAN DEVELOPMENT CLASSES

Nature of the Program—These courses are designed to make a variety of development opportunities available to artisans and technicians in a range of skill areas. The NWC 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 employee, the courses most needed for each individual's development. The Programmed Instruction section of this bulletin offers many courses that should prove helpful to Journeymen and Technicians.

REGISTRATION: Registration for this semester begins immediately. To enroll, send your completed Course Enrollment Form 11ND/NOTS 12410/w8 to Code 654. Enrollees will be notified of their enrollment status prior to the beginning of classes.

Solderification (36 Hours)

(Time and Dates to be Announced)

Coordinator: Carl P. Flag

Location: Training Center

Suggested for: Assemblers, Helpers, Journeymen and Technicians

This class will give classroom and lab instruction in soldering and packaging of electronics equipment in accordance with Shop Practice 19 as written by NAFT.

Advanced Transistors

Date: 3-14 February; 17-28 March, 1969 (80 hours)

Time: 0730-1630

Location: Annex No. 1, rear of Training Center

Instructors: Frankford Arsenal

Prerequisites: Minimum high school education or equivalent with a strong mathematics background; successful completion of a Basic Transistors course.

SCOPE: The Advanced Transistor course deals with basic four terminal analysis in general, and the specific application of four-terminal network analysis to the transistor. The important characteristics of the transistor are discussed and hybrid parameter analysis is applied to the transistor. The performance quantities — current gain, power gain, voltage gain, input and output resistance — are derived. While the mathematics involved in the analysis of the transistor has been held to a minimum, a general knowledge of the mathematical analysis leading to the major design formulas is discussed. Stabilization techniques, cascading of amplifiers, and discussion of transistor noise complete the detailed study of the transistor in this course.

Basic Infrared

Dates: 10-21 February (80 hours); 10-21 March (80 hours)

Time: 0730-1630

Location: Room 212, Training Center

Instructors: Frankford Arsenal

Prerequisites: High School or equivalent with a good Physics and Mathematics background.

SCOPE: This course is unique in that it is conducted at the technician level. The Basic Infrared course bridges the gap between early applications and research up to present applications and technology. Representative areas are: Orientation, Security & Safety Regulations; Powers of Ten, Heat Quantities Transfer; Terminology; General Characteristics; Basic Radiation Laws, types sources & practical exercises; Geometric & atmospheric attenuation; Principles of optics, optical components & systems & practical exercise; Photo effects in semiconductors; Detector characteristics, types & application of detectors & practical exercise; Principles of operation of IR image forming & communication systems; Basic principles of IR trackers & optical tracking systems; Operation of Red Eye, Shillelagh, and other missile systems; Operations of spectrometers, radio-meters and other instruments. Review and examination.

Troubleshooting Transistorized Equipment — Phase I

Date: First Class: 17-28 February; Second Class: 28 April-9 May

Third Class: 9-30 June

Location: Annex Number 1, in back of the Training Center

Time: 0730-1630

Instructors: Frankford Arsenal staff.

SCOPE: This course presents a simple and logical explanation of how to service basic transistorized equipment. The transistor circuits discussed and serviced are amplifiers, power supplies, oscillators, series and shunt regulators, etc. and are the basis for development into troubleshooting the more advanced transistorized equipment. Troubleshooting transistorized equipment can be quick and simple, or it can be painful and time consuming, depending on the method used. Diagnosis is everything. This is a practical course, with a minimum of time spent on pure theory.

Prerequisites for the course are a good basic knowledge of transistor theory, equivalent to Frankford Arsenal's "Basic Transistors" course.

Advanced Infrared

Date: 24 February-7 March; 24 March-4 April, 1969

Time: 0730-1630

Location: Room 212, Training Center

Instructors: Frankford Arsenal Personnel

Prerequisites: Minimum—Student must have a degree in engineering or one of the physical sciences or its equivalent. Selected graduates of the Basic Infrared course may attend. Personnel should be in an engineering assignment in the Infrared fields; however, this course is sufficiently general in nature to be useful to anyone involved with any Infrared system.

SCOPE: The versatility and usefulness of Infrared is limited only by the creativeness of the designer. Very few fields have received the accelerated interest shown in Infrared in the past few years. This interest has resulted in the development of new components and techniques whose applications were only dreams a few years ago. Any complete Infrared system consists of five basic and rather separate parts. Those five "elements" are so diverse and unrelated that a thorough knowledge of each element would take more than a lifetime of study. The analysis and compiling of the pertinent information into a condensed, comprehensive subject is needed, and this course is intended to fill that need.

The Advanced Infrared course is unparalleled in its presentation and scope. It is presented at the undergraduate level, concerning itself with the more frequently encountered elements. This course will help to provide the tools necessary in the evaluation or design of any Infrared system, by explaining the types, theory and purpose of each component and how they are interwoven to form a complete system. Sufficient time has been allotted for the student

to demonstrate for himself the concepts presented in class. A portion of this course has been devoted to illustrating some of the ingenious ways these components have been used.

Transistor Trouble Shooting, Phase II

Dates: 3-14 March, 1969

Time: 0730-1630 (80 hours)

Location: Annex No. 1 (rear of the Training Center)

Instructors: Frankford Arsenal Personnel

SCOPE: This course is designed to provide knowledge in servicing transistorized equipment, employing the more advanced circuits. The transistor circuits discussed and serviced are: switching circuits, stable multi-vibrators, logic circuits, ramp generators, staircase generators, curve tracer and dynamic measuring techniques. It is the purpose of this course to have technicians acquire a completely rounded background in troubleshooting. This is a practical course with a minimum of time spent on pure theory.

Basic Transistors

Dates: 31 March-11 April; 14-25 April; 26 May-6 June

Time: 0730-1630 (80 hours)

Location: Annex No. 1 (rear of the Training Center)

Instructors: Frankford Arsenal personnel

SCOPE: This course is conducted at the technician level and is designed to thoroughly acquaint the student with the transistor from a physical standpoint. Specific attention is given to atomic structure, semiconductor doping, P-N junctions and the junction transistor. Also discussed is a comparison of the basic transistor and vacuum tube amplifier circuits, transistor symbols, drawing of a load line and analyzing an amplifier. A portion of the course is devoted to soldering, handling and replacement techniques for the transistor. Several of the newest types of test equipment for transistors are discussed and are available for student use.

PROGRAMMED INSTRUCTION

The Autotutor with its tutorial branching system is one of the world's most sophisticated teaching machines. The student sets his own pace, and because individuals differ greatly in the rate at which they learn and perform, this method of instruction is better able to cope with individual problems.

The branching technique of programming presents the student with instructional material via a "program," which is an organized series of logical study units. These units are rear projected from within the machine onto a 7"x9" viewing screen. Each unit is composed of a small portion of explanatory text together with a multiple choice question. The student selects one of the response buttons to answer the question and his response determines the sequence of units to follow. If he answers correctly he is presented automatically with new material. But if he answers incorrectly, he is presented with a unit containing a more elementary explanation of the original study unit.

Should the need for extra remedial work be indicated, "wash-back" sequences are provided in the program — and conversely, the advancing student may be "washed forward" passing over subject matter which the Autotutor discloses he already knows. This intrinsically programmed material makes it possible to combine the patience and efficiency of a machine with the individual attention of a personal tutor.

ENROLLMENT PROCEDURE: Submit a completed NWC Course Enrollment Form 12410/28 to Code 654. Autotutors are located in the Training Center and several departments. Employees are scheduled on an individual basis. An Employee Development Opportunity Bulletin containing an in-depth description of each course will be issued the first part of March. Phone 72648 or 72686 if you have any questions on these programs.

SCIENCE AND ELECTRONIC COURSES

7755B Scientific Notation and Significant Figures
7752A Basic Electricity
7750 Elementary Electronics
7751 First Year Electronics (10 reels, includes Nos. 7751A to 7751F)
7751A Direct Current (2 reels)
7751B Alternating Current (2 reels)
7751C Reactive Circuits (2 reels)
7751D Principles of Vacuum Tubes and Transistors (2 reels)
7751E Special Purpose Tubes and Test Equipment
7751F Amplifiers and Oscillators
7756 Elements of Physics, First Semester (4 reels-4 Volumes)
7756A Elements of Physics, Volume 1, Lessons 1 thru 4.
7756B Elements of Physics, Volume 2, Lessons 5 thru 7, Statics and Kinetics
7756C Elements of Physics, Volume 3, Lessons 8 thru 11, Forces and Motion
7756D Elements of Physics, Volume 4, Lessons 12 thru 14, Energy
7757 Elements of Physics, Second Semester (4 reels - 4 volumes)
7757A Elements of Physics, Volume 5, Lessons 15 thru 19, Second Semester, Wave Motion
7757B Elements of Physics, Volume 6, Lessons 20 thru 22, Second Semester, Physical Optics
7757C Elements of Physics, Volume 7, Lessons 23 thru 26, Second Semester, Electricity
7757D Elements of Physics, Volume 8, Lesson 27, Second Semester, Electromagnetism

7758 PRACTICAL ELECTRONICS (A Laboratory Course)
Developed for Sears, Roebuck and Co. to train their service Technicians

7758A Basic Electricity (2 reels)
7758A-1 Vol. I-Reel 1
7758A-2 Vol. I — Reel 2
7758B Alternating Current (2 reels)
7758B-1 Vol. II — Reel 1
7758B-2 Vol. II — Reel 2
7758C Principles of Vacuum Tubes and Transistors (2 reels)
7758C-1 Vol. III — Reel 1
7758C-2 Vol. III — Reel 2
7758D Special Purpose Tubes and Test Equipment—Vol. V
7758E Amplifiers and Oscillators—Vol. V

7759C BASIC CHEMISTRY

Introduction to elementary principles in chemistry

7759C-1 Vol. I

7759C-2 Vol. II

(Continued on Page 11)

COURSE SCHEDULE — SPRING 1969

- University of Southern California
- University of California at Los Angeles
- University of California at Santa Barbara

- Bakersfield Junior College, Desert Division
- On-Center Short Courses
- S & E Day Classes

- Journeyman & Technician Development Classes
- Programmed Instruction
- Home Study Courses & Career Programs

PREFACE

This Course Schedule provides detailed information about programs and individual courses open to Center employees during the Spring 1969. The Schedule covers all courses that have been formally scheduled to date. It includes accredited university and junior college courses; on-Center short courses in a variety of areas; programmed instruction (Autotutor) and home-study courses.

These courses were developed largely in response to needs identified by the various departments of the Center in their annual call for training estimates for FY 1969. Departments are encouraged to continue working with their Personnel Management Advisers in the identification of training needs and to discuss development plans and courses.

RAYMOND A. HARRISON
Head, Personnel Department

USC COURSES IN PUBLIC ADMINISTRATION

Three graduate courses in Public Administration will be offered at China Lake by the University of Southern California during the spring semester, 1969. An undergraduate major in engineering, business, or physical, biological or social sciences is acceptable as pre-professional background for Public Administration courses. Single courses can be taken for information purposes, if an employee so desires.

PA 500, Fundamentals of Public Administration (4 units)

Instructor: Milton H. Ritchie; Al Hard, NWC

Meeting Dates: Thursdays, beginning 6 February 1969 and continuing for approximately 15 sessions.

Time: 1800-2130 Location: Training Building, Room 205

CONTENT: Governmental role in modern society; significance of public administration to policy processes and governmental effectiveness.

PA 575 (501) Science, Technology and Government (4 units)—One of 3 courses in R & D specialization.

Instructor: Ross Clayton, USC

Meeting Dates: Tuesdays, beginning 4 February 1969 and continuing for approximately 15 sessions.

Time: 1800-2130 Location: Training Building, Room 205

CONTENT: Impact of science/technology on governmental policy, processes, institutions; critical policy areas in science/technology; machinery for formulating science policy; governmental impact on science/technology.

PA 591, Research in Complex Organizations (4 units)

Instructor: Lyle Knowles, USC

Meeting Dates: Wednesdays, beginning 5 February 1969 and continuing for approximately 15 sessions.

Time: 1800-2130 Location: Training Building, Room 205

CONTENT: Philosophy of science; research theory and methodology in the social sciences, preparation of research designs, solving bibliographical problems.

COURSES IN ENGINEERING

Four senior- and graduate-level courses in Electrical and Mechanical Engineering will be offered during the Spring Semester, 1969, under USC's newly established China Lake graduate program in engineering. These courses will be taught during normal working hours and are accordingly primarily for the benefit of the Center's civilian employees and military personnel. Others may enroll on a space available basis. NWC employees and military personnel will be exempted from payment of tuition on presenting authorization form No. 11ND-NWC-12410/41 (1-69). Registration for these Engineering courses will be held 0800-1200 on 27-31 January 1969 in the Education Office, Room 1004, Michelson Laboratory. Text books are to be purchased at the time of registration.

EE 470 Electromagnetics II — 3 units

Instructor: Dr. Richard A. Roberts

Tuesdays and Thursdays, 0745-0915, Room 107, Training Center

Starting Date: Tuesday, 4 February, 1969

SCOPE: Dynamic field theory and elementary solutions of Maxwell's equations. Introduction to propagation and radiation of electromagnetic fields.

Prerequisite: EE 430 Electromagnetics I
Explanation of electrical concepts by static and dynamic field theory using vector methods; time-changing fields. Maxwell's equations and the relation of fields to circuit parameters.

Prerequisites: EE 331 Electric Circuits I
Formulation of electrical equilibrium equations; transient and steady state calculations; determinants and matrices; graphical methods.

Math 345 Math. of Physics & Engineering I
Determinants and matrices; linear differential equations; Laplace transforms; vector analysis.

Math 475 Introduction to Theory of Complex Variables—4 units

Instructor: Dr. Merle E. Ross

Tuesdays and Thursdays, 0930-1130, Room 107, Training Center

Starting Date: Tuesday, 4 February 1969

SCOPE: Limits and infinite series; line integrals; conformal mapping; single valued functions of a complex variable; applications.

Prerequisite: Math. 259—Third semester Calculus
Fundamental principles of differential calculus with applications; introduction to integral calculus.

ME 525ab Engineering Analysis — 3 units

Instructor: Dr. W. R. Maddux

Mondays and Wednesdays, 0800-0930, Room 107, Training Center

Starting Date: Monday, 3 February, 1969.

SCOPE: Typical engineering problems discussed on a physical basis. Setup and solution of problems by means of the existing mathematical tools.

ME 420 Engineering Vibrations I — 3 units

Instructor: Mr. William Stronge

Mondays and Wednesdays, 0945-1115, Room 107, Training Center

Starting Date: Monday, 3 February, 1969.

SCOPE: Theory of free and forced vibrations with and without damping; systems of single and multiple degrees of freedom; iteration; methods; vibration isolation; instrumentation.

Prerequisite: CE 307 Analytical Mechanics II — 3 units

Kinematics, dynamics; analytic and graphic solutions.

Prerequisite: CE 207 Analytical Mechanics I — 3 units

Statics; analytic and graphic solutions.

For further information, contact Donald Sharnas (Code 654) extension 71480/71451.

Four graduate courses in Electrical and Mechanical Engineering will be offered at China Lake during the Spring Semester, 1969. Single courses can be taken by students who desire to take only certain courses to upgrade and advance their training.

UCLA

EXTENSION COURSES

The Winter Quarter is currently underway. However, tentative plans for the Spring Quarter include the following courses:

Electronic Circuits II
Electronics I
Electronics II
Electro-Magnetics I
Introduction to Control Systems
Mechanical Design
Metallography
Heat Transfer
Probability Theory

Exact scheduling in regard to time, dates, and locations will be announced later.

comfort, safety, beauty, economy of time and energy, and adaptation to the needs of families with varying interests and incomes.

Philosophy 7, Introduction to Logic, is a study of traditional and modern logic with emphasis on the latter. Included are elements of sets; syllogisms; truth tables; propositional, predicate, and class calculus; and Boolean Algebra and switching networks.

Police Science 77, Search and Rescue, will provide a thorough understanding of the principles and methods of search and rescue operations for rescue from wells, mines, and caves and for the rescue of persons lost in the local terrain.

Speech 21, Oral Interpretation, will emphasize the acquisition of effective oral reading. Major interpretation projects include exercises in prose, poetry, and drama. Training will be given in the selection of literature, analysis, and techniques of visible and audible expression.

Sociology 7, Juvenile Delinquency, is designed for students, parents, social workers, and teachers. It will study the problems of the maladjusted juvenile, ranging in type from the potential delinquent to the institutionalized offender.

Chemistry 8, Organic Chemistry, and Office Skills 63, Machine Calculation, are described in the Desert Campus Bulletin 1968-1969.

THE COLLEGE

The Desert Campus of Bakersfield College offers a comprehensive junior college program in both its day and evening classes. This fully-accredited program is designed to lead to an Associate in Arts Degree. The University of California and other colleges and universities give full credit for appropriate courses completed at the Desert Campus.

ADMISSION

As a California "open-door" junior college, the Desert Campus admits any high school graduate. Any non-high school graduate between 18 and 21 years of age may be admitted with the approval of the Dean of the Desert Campus and the high school principal in the area of the applicant's residence. Any adult over 21 years of age may be admitted if his training and experience indicate he can profit from the offerings of the College.

REGISTRATION

Registration may be completed in the College buildings on the south side of Burroughs High School campus during the time indicated on the calendar.

As classes will be closed when a maximum enrollment has been reached, it is stressed that registration be completed at the earliest possible date. No registration will be permitted after February 14.

COUNSELING

The Desert Campus makes available counseling service by appointment daily and evenings through the College office, phone 375-1548. Students are assisted in planning courses of study and in making study lists based on their interests, aptitudes, previous choosing courses and in planning for the future, a course in orientation is offered in which aptitude tests, vocational inventories and adjustment inventories are evaluated.

Students wishing to apply Desert Campus courses toward a high school diploma are provided with counseling especially designed to assist them.

FEES & TUITION

There are no Desert Campus registration fees and no tuition for residents of the area. Out-of-state tuition will be charged to non-residents of California who take more than six units of work. Every student will be asked to buy a \$2 student activity card.

BOOKS & SUPPLIES

All students must provide their own books and supplies. The College Bookstore will be open only during the first two weeks of the semester between 4 and 8 p.m. Students should plan to buy their supplies during these first two weeks.

TRANSCRIPTS

Each student must have a transcript of his high school record and a transcript from each college attended sent directly to the College from the institutions concerned. Charges for these transcripts must be paid by the student.

DROPPING CLASSES

Students who wish to withdraw from a class for any reason should notify the office immediately. After a third week of instruction, no student will be allowed to drop a course officially until he returns to the office a completed form signed by his instructor. To protect his own permanent record, a student must drop his classes officially rather than simply cease to attend.

SCHEDULE OF CLASSES

To complete registration forms students need the IBM ticket number, which appears on the schedule at the left of the course title. For example, the IBM number for Chemistry 30A is 512.80. Also needed are the dates of entrance, which are February 3 for Mon.-Wed. classes, February 4 for Tues.-Thurs. classes, February 5 for Wed. classes, and February 7 for Friday classes.

Bakersfield College Desert Campus reserves the right to make schedule changes and to cancel any class.
*Classes so marked are adult classes and may be taken without credit. All other classes are graded classes and must be taken for credit.

DAY COURSES

512.80 Chemistry 30A—Introductory Chemistry Tues. and Thurs., 12:30-2:33 p.m. Room 4, 3 units Dr. Cleaves (Prerequisite: Mathematics A or equivalent)	254.80 English 1B—Introduction to Types of Literature Tues. and Thurs., 10:00-11:23 a.m. Room 2, 3 units Mrs. Ward (Prerequisite: English 1A)	269.80 English 50—Introductory Composition Tues. and Thurs., 10:00-11:23 a.m. Room 3, 3 units Mrs. Maddox (Prerequisite: Level 2 classification or a grade of "C" in English 60 or 62)	271.80 English 53—Business Correspondence Mon. and Wed., 10:00-11:23 a.m. Business Skills Center, 3 units Mrs. Greco (Prerequisite: Level 2 classification or a grade of "C" in English 60 or 62)	691.80 History 17B—History of the United States Mon. and Wed., 10:00-11:23 a.m. Room 2, 3 units Mr. Rosenberg (Prerequisite: Qualifying score on a college aptitude test or "C" or higher in Social Science 53A)
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Life Science 53 Laboratory—General Biology (By arrangement with instructor 3 hours per week, lecture concurrently) Independent Study Center, 0 units Mr. Marsh (See Evening offering)	418.80 Math A—Elementary Algebra Mon. and Wed., 9:00-11:23 a.m. Room 4, 3 units Staff	421.80 Math B—Intermediate Algebra Mon. and Wed., 12:30-1:53 p.m. Room 4, 3 units Staff (Prerequisite: Grade of "C" or higher in either one year of high school algebra or Mathematics A)	119.80 Office Skills 54—Typing Review Tues. and Thurs., 9:30-11:53 a.m. Business Skills Center, 3 units Mrs. Greco (Prerequisite: Open to any clerical or secretarial major who has had typing instruction, but who does not meet the prerequisites for Office Skills 50B. Also open to those who feel they need more skill before continuing in the typing curriculum.)	637.80 Physical Education 5V—Volleyball Tues. and Thurs., 3:30-4:23 p.m. Gym, 5 units Mr. Gardner	741.80 Psychology 33—Personal and Social Adjustment Mon. and Wed., 12:30-1:53 p.m. Room 2, 3 units Mr. Riley (Prerequisite: Psychology 1A)	742.80 Psychology 51—Applied Psychology Tues. and Thurs., 12:30-1:53 p.m. Room 2, 3 units Mr. Riley	752.80 Social Science 53A—Introduction to Social Science Mon. and Wed., 12:30-1:53 p.m. Room 3, 3 units Mr. Rosenberg
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EVENING COURSES

61.81 Accounting 63—Taxation Accounting Mon. and Wed., 5:00-6:23 p.m. Room L31, 3 units Dr. Backus (Prerequisites: Accounting 53A, 53B or Business Administration 1A)	671.81 Anthropology 2—Cultural Anthropology Fri., 6:00-9:00 p.m. Room 2, 3 units Miss Lytton	197.81 Art 5AB—Introduction to Oil Painting Mon. and Wed., 7:00-9:53 p.m. Room G02, 3 units Mr. Drow (Prerequisite: Art 2A or 3A)	215.81 Art 11AB—Sculpture Tues. and Thurs., 7:00-9:53 p.m. Room G02, 3 units Mrs. Guzman	464.81 Biology 10—Introduction to Biological Principles Mon. and Wed., 5:00-6:23 p.m. Room 4, 3 units Mr. Marsh (Prerequisite: a qualifying score on the college aptitude tests or "B" in high school biology or chemistry or physics or a "C" in Life Science 53)	465.81 Biology 10L—Biological Principles Laboratory Mon. and Wed., 6:30-7:53 p.m. Room 4, 1 unit Mr. Marsh (Prerequisite: Completion of or concurrent enrollment in Biology 10)	60.81 Business 51—Business Mathematics Mon. and Wed., 5:00-6:23 p.m. Room D22, 3 units Mr. Matulef	50.81 Business Administration 1B—Principles of Accounting Mon. and Wed., 6:00-7:53 p.m. Room L31, 3 units Dr. Backus (Prerequisite: Business Administration 1A)	52.81 Business Administration 1B—Business Law Tues. and Thurs., 6:30-7:53 p.m. Room L31, 3 units Dr. Backus (Prerequisite: Business Administration 18A)	506.81 Chemistry 1B—Qualitative Analysis Mon. and Wed., 5:00-6:23 p.m. Room D29B, 5 units Dr. Cleaves (Prerequisite: a grade of "C" or higher in Chemistry 1A)	Chemistry 1B Laboratory—Qualitative Analysis Laboratory Tues. and Thurs., 6:30-9:23 p.m. Room D29B, 0 units Dr. Cleaves (Prerequisite: concurrent enrollment in Chemistry 1B)	513.81 Chemistry 30B—Introductory Chemistry with Ties Lab 6:30-9:23 p.m. Mon. and Wed., 7:00-7:53 p.m. Room D29B, 3 units Dr. Cleaves (Prerequisite: Chemistry 30A)	513.82 Chemistry 30B—Introductory Chemistry with Ties Lab 6:30-9:23 p.m. Mon. and Wed., 7:00-7:53 p.m. Room D29B, 3 units Dr. Cleaves (Prerequisite: Chemistry 30A)	510.81 Chemistry 8—Organic Chemistry Mon. and Wed., 6:30-7:53 p.m. Room D29B, 3 units Dr. Cleaves (Prerequisite: Chemistry 1A)	83.81 Data Processing 50—Introduction to Business Data Processing Tues. and Thurs., 6:30-7:53 p.m. Room B02, 3 units Mr. Zaharias	96.81 Data Processing 56—Card Punch Operation Mon. and Wed., 7:30-10:00 p.m. Administration Building, 1 unit Mrs. Massaro (Prerequisite: Data Processing 50 or approval of the instructor and ability to type 25 words per minute. May be taken concurrently with Data Processing 50)
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96.82 Data Processing 56—Card Punch Operation Mon. and Wed., 7:30-10:00 p.m. Administration Building, 1 unit Mrs. Massaro (Prerequisite: Data Processing 50 or approval of the instructor and ability to type 25 words per minute. May be taken concurrently with Data Processing 50) Starts March 17, 1968	96.81 Data Processing 61A—Computer Programming Tues. and Thurs., 6:30-9:30 p.m. Room D22, 2 units Mrs. Paschal (Prerequisites: Math A or Math D or Permission of the instructor)	246.81 Drama 27—Theatre Laboratory: Acting, Production and Management Mon. and Wed., 6:30-9:53 p.m. Room L32, 1 unit Mrs. Schwarzbach	675.81 Economics 1B—Principles of Economics Tues. and Thurs., 8:00-9:23 p.m. Room L31, 3 units Dr. Backus (Prerequisite: Economics 1A)	779.81 Electronic Technology 54B—Fundamentals of Electricity Mon. and Wed., 5:00-6:23 p.m. Training Annex 2, 4 units Mr. Wood (Prerequisite: Electronic Technology 54A)	Electronic Technology 54B Laboratory—Fundamentals of Electricity Laboratory Mon., 6:30-9:23 p.m. Training Annex 2, 0 units Mr. Wood (Prerequisite: concurrent enrollment in Electronic Technology 54B)	770.81 Electronic Technology 68A—Theory of Microwave Communications Tues. and Thurs., 5:00-6:23 p.m. Training Annex 2, 3 units Mr. Patterson (Prerequisites: One year high school algebra and trigonometry and Electronics 54A and B and Electronics 53 or equivalent)	806.81 Electronic Technology 58A—Transistor Circuits Tues. and Thurs., 7:00-9:23 p.m. Training Annex 2, 3 units Mr. Patterson (Prerequisites: Technical Math 53AB or equivalent and Electronic Technology 54AB or equivalent)	232.81 English 1A—Expository Composition Mon. and Wed., 6:30-7:53 p.m. Room M43, 3 units Mrs. Ward (Prerequisite: Level 1 classification or a grade of "C" in English 50)	254.81 English 1B—Introduction to Types of Literature Mon. and Wed., 5:00-6:23 p.m. Room M43, 3 units Mrs. Ward (Prerequisite: English 1A)	259.81 English 10—Plays of Shakespeare Tues. and Thurs., 5:00-6:23 p.m. Room M43, 3 units Mrs. Ward (Prerequisite: English 1B or permission of instructor)	264.81 English 30B—Survey of American Literature from the Civil War to the Present Tues. and Thurs., 6:30-7:53 p.m. Room M42, 3 units Mrs. Ward (Prerequisite: English 1B or permission of the instructor)	269.81 English 50—Introductory Composition Tues. and Thurs., 5:00-6:23 p.m. Room L30, 3 units Mrs. Maddox (Prerequisite: Level 2 classification or a grade of "C" in English 60 or 62)	273.81 English 60—Basic Usage and Grammar Tues. and Thurs., 6:30-7:53 p.m. Room 2, 3 units Mrs. Walden (Prerequisite: Level 3 classification or a grade of "C" in English 60)	*279.81 English 90A—English for Foreign Born Tues. and Thurs., 6:30-7:53 p.m. Room M42, 0 units Mr. Roberts	281.81 English 080—Special Repair English Tues. and Thurs., 5:00-6:23 p.m. Room 2, 3 units Mrs. Walden (Prerequisite: Level 4 classification)	283.81 English 5—Spelling Improvement Tues., 5:30-8:53 p.m. Room M43, 5 units Mrs. Ward (14 weeks beginning Feb. 17-May 26)	288.81 French 2—Elementary French Mon. and Wed., 5:00-7:23 p.m. Room D24, 4 units Mr. Afrank (Prerequisite: French 1 or two years of high school French)	680.81 Geography 1A—Introduction to Geography: Physical Elements Mon. and Wed., 8:00-9:23 p.m. Room B02, 3 units Mr. Butler	580.81 Health Education 1—Principles of Health Education Tues., 8:00-9:53 p.m. Room L38, 2 units Mr. White	686.81 History 4B—Western Civilization Mon. and Wed., 8:00-9:23 p.m. Room 2, 3 units Mr. Rosenberg (Prerequisite: Recommended, though not required, that History 4A be taken before 4B)	688.81 History 5B—History of the Americas in the Nineteenth and Twentieth Centuries Tues. and Thurs., 5:00-6:23 p.m. Room M42, 3 units Mr. Rosenberg	149.81 Home Economics 15A—Interior Decoration Tues., 7:00-9:53 p.m. Room C18B, 3 units Mrs. Novascone (Prerequisite: Art 3a recommended)	801.81 Industrial Drawing 30B—Industrial Drawing Tues. and Thurs., 6:30-9:30 p.m. Room M48, 3 units Mr. Ingle (Prerequisite: Industrial Drawing 30a or two years of high school drafting with grades of "B" or higher)	802.81 Industrial Drawing 30C—Advanced Industrial Drawing Tues. and Thurs., 5:00-7:53 p.m. Room M48, 3 units Mr. Ingle (Prerequisite: Industrial Drawing 30b or equivalent)	334.81 Journalism 11A—Principles of Editing Mon. and Wed., 6:30-8:30 p.m. Room 4, 2 units Mr. Lipton (Prerequisite: Journalism 10a—may be taken concurrently)	335.81 Journalism 11B—Editing Practices Mon. and Wed., 6:30-8:30 p.m. Room 4, 2 units Mr. Lipton (Prerequisite: Journalism 11a or permission of instructor)	336.81 Journalism 11C—Editing Practices Mon. and Wed., 6:30-8:30 p.m. Room 4, 2 units Mr. Lipton (Prerequisite: Journalism 11a or permission of the instructor)	337.81 Journalism 11D—Editing Practices Mon. and Wed., 6:30-8:30 p.m. Room 4, 2 units Mr. Lipton (Prerequisite: Journalism 11a or permission of instructor)	475.81 Life Science 53—General Biology Tues. and Thurs., 5:00-5:53 p.m. Room 4, 3 units Mr. Marsh
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Life Science 53 Laboratory—General Biology Laboratory (By arrangement with instructor 3 hours per week) Independent Study Center, 0 units Mr. Marsh (Prerequisite: concurrent enrollment in Life Science 53)	419.81 Math B—Geometry Tues. and Thurs., 7:00-9:23 p.m. Room D22, 3 units Staff (Prerequisite: Mathematics A or one year of high school algebra)	420.81 Math C—Plane Trigonometry Tues. and Thurs., 5:00-6:23 p.m. Room 3, 3 units Mr. Keranen (Prerequisites: Plane geometry and grade of "C" or higher in either advanced high school algebra or Mathematics D)	421.81 Math D—Intermediate Algebra Mon. and Wed., 5:00-6:23 p.m. Room 3, 3 units Mr. Keranen (Prerequisites: Grade of "C" in either one year of high school algebra or Mathematics A)	443.81 Math 090—Basic Arithmetic Mon. and Wed., 6:30-7:53 p.m. Room D22, 3 units Staff	422.81 Math 1—Mathematical Analysis Tues. and Thurs., 8:00-9:23 p.m. Room 3, 3 units Mr. Keranen (Prerequisites: Mathematics D or equivalent and Mathematics C)	423.81 Math 3B—Analytic Geometry and Calculus II Tues. and Thurs., 6:30-7:53 p.m. Room 3, 3 units Mr. Keranen (Prerequisite: Grade of "C" in Mathematics 3a or permission of instructor)	444.81 Math 22—Elementary Probability and Statistics Mon., 7:00-10:00 p.m. Room D20, 3 units Mr. Dinsmore (Prerequisite: Mathematics D or equivalent)	437.81 Math 52B—Advanced Technical Mathematics Tues. and Thurs., 5:00-6:23 p.m. Room D28, 3 units Mr. Matulef (Prerequisite: Mathematics 52a or A and B)	439.81 Math 53B—Advanced Mathematics for Electronics Tues. and Thurs., 5:00-6:23 p.m. Room D22, 3 units Dr. Cleaves (Prerequisite: Mathematics 53a)	371.81 Music 12AB—Orchestra Mon., 7:00-9:53 p.m. Room F01, 2 units Mr. Cole (Prerequisite: permission of instructor)	374.81 Music 14—College Choir Tues., 6:00-9:53 p.m. Room F01, 1 unit Mr. Sherburn (Prerequisite: Interview by director of the choir)	385.81 Music 22—Music Appreciation Tues. and Thurs., 5:00-5:53 p.m. Room F01, 2 units Staff	111.81 Office Skills 50B—Intermediate Typing Tues. and Thurs., 5:00-7:23 p.m. Business Skills Center, 3 units Mrs. Greco (Prerequisite: Office Skills 50a with a "C" or a year of high school typing with "B" or Office Skills 54 with a "C")	114.81 Office Skill 53B—Office Practice Mon. and Wed., 5:00-7:23 p.m. Business Skills Center, 3 units Mrs. Nelson (Prerequisite: Secretarial Training 50a or equivalent or Office Practice 53a)	116.81 Office Skills 63—Machine Calculation Mon. and Wed., 7:30-9:53 p.m. Business Skills Center, 3 units Mrs. Nelson (Prerequisite: Mathematics 51 or a qualifying score on a college aptitude test)	700.81 Orientation 1—Educational Planning Wed., 8:00-8:53 p.m. Room L38, 5 units Mr. Riley (1st 9 weeks, ending March 26)	393.81 Philosophy 7—Introduction to Logic Tues. and Thurs., 5:00-6:23 p.m. Room L31, 3 units Dr. Backus (Prerequisites: Mathematics A and B or equivalent)	656.81 Physical Education 31A—Standard Red Cross First Aid Wed., 8:00-9:53 p.m. Room L38, 1 unit Mr. White (Beginning April 9)	551.81 Physics 2B—General Physics Mon. and Wed., 7:00-8:23 p.m. Room D29A, 3 units Mr. Matulef (Prerequisite: Physics 2a)	553.81 Physics 3B—General Physics Laboratory Mon. and Wed., 8:30-9:53 p.m. Room D29A, 1 unit Mr. Matulef (Prerequisite: Physics 2b, which may be taken concurrently)	555.81 Physics 60B—Technical Physics Tues. and Thurs., 7:00-9:53 p.m. Room D29A, 4 units Mr. Matulef (Prerequisite: Physics 60a and Mathematics 53b, which may be taken concurrently)	*844.81 Police Science 77—Search and Rescue Tues., 7:00-9:53 p.m. Room L30, 3 units Dr. Austin (Prerequisites: Prior experience with a search and rescue team, active military service, law enforcement service, or the permission of the instructor)	729.81 Political Science 1—American Government Mon. and Wed., 6:30-7:53 p.m. Room 2, 3 units Mr. Rosenberg	736.81 Psychology 1A—General Psychology Mon. and Wed., 5:00-6:23 p.m. Room L30, 3 units Staff (Prerequisite: a qualifying score on a college aptitude test or a grade of "C" in Psychology 51)	123.81 Secretarial Training 50B—Intermediate Gregg Shorthand Tues. and Thurs., 7:30-9:53 p.m. Business Skills Center, 4 units Mrs. Greco (Prerequisite: one year of high school stenography or Secretarial Training 50a with a grade of "C" and concurrent enrollment in Office Skills 54, 50b, 60a or completion of 60a)	753.81 Social Science 53B—Introduction to Social Science Mon. and Wed., 6:30-7:53 p.m. Room B02, 3 units Mr. Butler	761.81 Sociology 2—Problems of Modern Society Tues. and Thurs., 6:30-7:53 p.m. Room M40, 3 units Mr. Fekrat (Prerequisite: Sociology 1 or Psychology 1a or permission of instructor)	762.81 Sociology 7—Juvenile Delinquency Tues. and Thurs., 8:00-9:23 p.m. Room M40, 3 units Mr. Fekrat (Prerequisite: Sociology 1 or Psychology 1a or permission of instructor)	*324.81 Spanish 52B—Elementary Conversational Spanish Tues. and Thurs., 6:30-7:53 p.m. Room D21, 2 units Mr. Casados (Prerequisite: Spanish 52a or its equivalent)
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412.81 Speech 21—Oral Interpretation Tues. and Thurs., 5:00-6:23 p.m. Room L32, 3 units Mrs. Schwarzbach (Prerequisite: Speech 1 or equivalent)	895.81 Welding 53A—Elementary Welding Wed., 5:00-9:53 p.m. Training Annex 2, 3 units Staff
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ON-CENTER SHORT COURSES

Due to enrollment limitations nomination by a department does not necessarily guarantee admission to a course. Final selection will be determined by the Employee Development Division in cooperation with the cognizant training facility. Employees accepted for a course will be notified by their departments.

The role of the Federal Manager in Equal Employment Opportunity

Dates: 3 & 4 February, 1969
Times: 0800-1600 hours
Location: Training Center, Room 205
Instructor: Anne Hay, Director, Personnel Management Training Institute, Regional Training Center, U.S. Civil Service Commission, San Francisco, California, and guest speaker in the field of Sociology or Psychology.

Nominations: Those departments having a greater number of minority group employees are urged to send their supervisors as recommended by the Naval Weapons Center Equal Employment Opportunity Affirmative Action Plan.
Enrollment: Submit nominations on NOTS Enrollment Form 12410/28 through proper department channels to Code 654.
SCOPE: This two-day workshop provides increased factual understanding of the background of discrimination and equal employment opportunity; a greater appreciation of the effects of discrimination; and information on how to develop and carry out a positive equal employment program in conformity with national policy. Lecture and discussion will cover an understanding of the nature of prejudice and how to deal with it.

The class will be divided into small workgroups.

Computer Assisted Circuit Design Seminar

Dates: 4, 6, 11, 13, 18, and 20 February 1969 (Tuesday & Thursday)

Times: 1230-1630

Location: Room 211, Training Center

Instructors: Mr. David Williams, and Mr. George Kostopoulos

of the Systems and Equipment Analysis Section at Computer Applications Incorporated.

SCOPE: This seminar is intended to familiarize electronic systems/circuit design personnel with the application of modern computer techniques to the analysis and design of electronic circuits.

The objective of this course is to make design engineers more aware of the capabilities of computers for circuit and system design. Upon completion of the course the participants should have a sufficient familiarity with the capabilities and requirements of computer-aided design to motivate further study in the field. The course material will include GE time sharing AC and DC Linear Analysis, SNAP II, Circus, and ECAPI.

Participants should be familiar with electronic and circuit/systems design. Knowledge of computer technology or operation is not required for attendance.

Office of General Counsel (OGC)/Procurement Seminar

Dates: 4-7 February 1969

Times: 0800-1600 hours

Location: Naval Underwater Weapons Center (NUWC), Pasadena, California

SCOPE: General areas to be covered will include competitive negotiation, change orders, unsolicited proposals and technical data packages. The specifics will be tailored to meet the desires of the attendees.

The technical data coverage will be strictly non-legal and will be handled strictly by technical data specialists. Discussion will be geared to explaining how to develop the best possible data package for eventual competitive procurement of Navy hardware.

Introduction to Systems Analysis

Dates: 10-14 February 1969 (rescheduled from December)

Times: 0830-1600

Location: Room 205, Training Center

Instructors: Paul Wright — U.S. Civil Service Commission, Assistant Director of ADP Management Training Institute.

Russ Hilsinger — Computer Applications Inc.

SCOPE: The course is designed to develop the ability to apply the basic techniques and methods of computer system analysis to management data processing problems of the Federal Government. The course will include:

- The extent and tasks of systems analysis.
- The specific steps of the data processing requirements study.
- Analysis of the present system.
- Developing specifications for the new system.
- Designing input, output, and file layouts for new systems.
- Documentation.
- Systems maintenance.

Lectures and laboratory work will be integrated so that participants will develop and present an application system.

Effective Presentations

Dates: 12 February-7 March (Wednesdays & Fridays)

Times: 0800-1130 (25 hours, 8 meetings)

Location: Room 107 — Training Center

Instructor: Earle Kirkbride, Code 752, Phone 72209

SCOPE: This course is recommended for project or administrative personnel who would like to do a better job of presenting their ideas and proposals. The course includes lectures, group discussions, and workshops covering basic techniques of planning, developing, and delivering different types of presentations. Emphasis is placed on technical presentations.

Introduction to Digital Systems 101

Date: 17 February — 19 February

Time: 0800-1400 (6 hours)

Location: Room 205, Training Center

Instructor: Classroom instructors will be assigned on a subject basis from the technical staff of the Control Data Corporation.

SCOPE: The first in a series of 8 courses, this course is designed to give the student an initial introduction to digital systems. Through the use of a text, films, and slides, the student will become familiar with the history of computers; informed of current and future computer applications; knowledgeable of the basic structure and characteristics of digital systems; able to perform arithmetic operations in binary, octal, and hexadecimal number systems; and able to convert from one number system to another.

Geometric Dimensioning & Tolerancing

Dates: 17-21 February 1969

Times: 0800-1630 (40 hours)

Location: Room 211, Training Center

Instructor: Mr. Lowell W. Foster, Senior Standardization En-

gineer at Honeywell; Member of USASI Y14.5 Committee; Y14.5 Liaison to Canada; and U.S. representative to ABC Unification Program.

SCOPE: Participants will learn the principles and application of Geometric Dimensioning & Tolerancing and the Applications of USASI Y14.5; MIL