

CAP Squadron Plans Flights

Major Charles Ross, Commander of the China Lake Squadron of Civil Air Patrol, has announced the possibility of Saturday training flights in the near future.

Such flights would encompass all phases of flight training from weather to navigation and the filing of flight plans as well as radio communications and actual flying of aircraft, Major Ross said.

All cadets in the squadron will have an opportunity to take part in flights of several hours duration.

According to Major Jim Rose, membership in the CAP is open for only three weeks out of each 11 and now is the time for boys and girls from 13 to 18 years of age to join the local squadron.

Full information about the CAP program is available to prospective cadets and their

parents at the meeting place each Wednesday evening from 7 to 9:30 p.m.

The China Lake Squadron meets at Old Bishops building No. 355 at the north end of Kitt St. on the NWC base. Interested persons may also call Major Ross at the Center Property Disposal, Ext. 71502, or Major Jim Rose, Commandant of Cadets, at the Center Fire Department, Ext. 9632.

Bantam and Junior Bowling Leagues To Start September 7

China Lake's Bantam and Junior Bowling Leagues will begin on Saturday, September 7, according to Bowl manager Fred Dalpiaz.

Bantam boys will bowl at 9 a.m. and the girls will get underway at 11 a.m. The Junior mixed league will follow at 1:30 p.m.

Those interested in participating in the Youth Leagues are requested to sign up at the China Lake Bowl prior to closing time on September 7.

Golf Tournament At 29 Palms Set

The Mojave Desert Inter-Service League golf tournament will be held at Twenty-nine Palms on September 19-21.

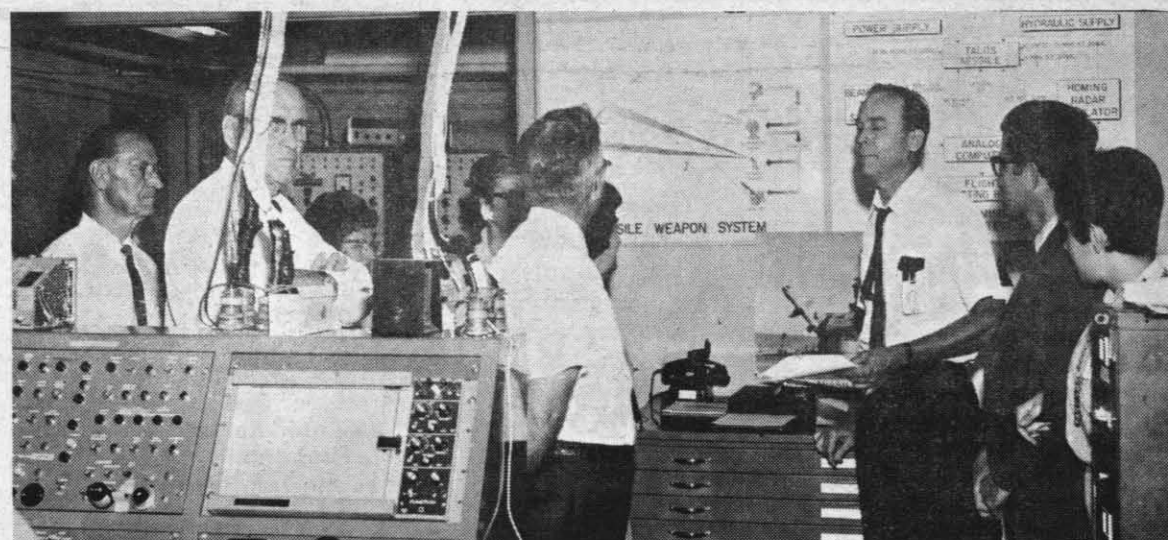
China Lake can send a total of 10 golfers, military and civilian, to the tournament. Qualifying rounds will be held this week-end and next week-end.

Anyone interested in participating should contact Paul Someson at the China Lake Golf Club, announced Ray Gier, Athletic Director.

HEADS UP

The first satellite which could be pointed at earth and kept in that position was the Navy's TRAAC satellite, launched in November 1961.

The first satellite which could be restarted after shutting down second stage engines, was Navy navigational satellite 1B. This method permitted last-minute refinements in orbital path of the satellite.



NAVY LEAGUE VISITS CORONA — Members of the Corona-Riverside Council of the Navy League were entertained on a tour through the Naval Weapons Center Corona Laboratories and the Fleet Missile Systems Analysis and Evaluation Group recently.

Some are shown here being briefed in the Counter-countermeasures Division by R. E. Hamilton (third from right). The group also saw the recent Navy movie "Ready or Not" and were fêted at a reception in the Norconian Club following the tour.

Slide Show Set for New Archeology Group

The Friends of Archaeology will meet on Wednesday, September 4 at 7 p.m. in the Maturango Museum to hear the presentation of Bob Burrow's formal organization plan concerning the duties of each officer, field chairman, survey chairman, and cataloger of artifacts, reports Robert Downing, board member.

The plan was originally presented at the August 7 meeting and has been studied by a

special committee experienced in both field work and organization of an archaeological society.

Jim Baird, who brought this dream to reality, will have a slide show for newcomers and will explain the need for a fully responsible organization in this area.

In conformance with the antiquities act, such an organization can instigate the proper requests through the Federal Department of Interior's Bu-

reau of Land Management, the Navy, and the State of California Land Management Commission, Downing said.

Members of the society of Friends of Archaeology will not necessarily be members of the Maturango Museum, but the society will be affiliated with the Museum.

Both Baird and Burrows state there are probably 20 years of archaeological adventure in the exploration of caves and house rings in this area.

SHOWBOAT

FRIDAY — AUGUST 30

"FEVER HEAT" (105 Min.)

Nick Adams, Norman Alden, Jeannine Riley

7:30 P.M.

(Racing Drama) Racing mechanic helps a driver's widow handle her garage and stable of drivers who burn up the dirt track circuit midst trouble with the promoters and townspeople. A story of those behind, and on, the scene. (Adult, Mature Youth.)

Short: "Sorry Senorita" (9 Min.)

SATURDAY — AUGUST 31

"MATINEE"

"TWO LITTLE BEARS" (82 Min.)

Eddie Albert

Shorts: "Tree Cornered Twenty" (7 Min.)

"Trader Tom No. 12" (Last-13 Min.)

1:00 P.M.

"EVENING"

"THE BOBO" (105 Min.)

Peter Sellers, Britt Ekland

7:30 P.M.

(Comedy) A stage-struck matador is promised a chance at the local theater if he can "conquer" a lovely lady of luxury within three days. His plan of conquest is a howl! It's spicy, but nice, with pretty Britt as the foil. (Adult.)

Short: "Hareway to the Stars" (7 Min.)

SUNDAY-MONDAY — SEPTEMBER 1-2

"FIRECRACK" (104 Min.)

James Stewart, Henry Fonda, Inger Stevens, Barbara Luna

7:30 P.M.

(Western) Part-time sheriff, a meek farmer who wants no trouble, is faced with the problem of his life when a tough gang takes over his town. Filled with suspense and blazing action by the stellar cast. Thrilling climax! (Adult, Mature Youth.)

Short: "Solid Tin Coyote" (Roadrunner-7 Min.)

TUESDAY-WEDNESDAY — SEPTEMBER 3-4

"PLANET OF APES" (112 Min.)

Charlton Heston, Kim Hunter, Roddy McDowall

7:30 P.M.

(Science/Fiction) Don't miss this fantastic and enthralling story of astronauts who land on a weird planet ruled by apes—where man is in slavery to them. So real you'll tingle with excitement in every scene! Better go early! (Adult, Youth, Very Mature Children.)

Short: "Bwana Magoo" (7 Min.)

WEDNESDAY — SEPTEMBER 4

"SPECIAL MATINEE"

"THE ROBE" (135 Min.)

1:00 P.M.

THURSDAY-FRIDAY — SEPTEMBER 5-6

"WILD RACERS" (80 Min.)

Fabian, Mimsy Farmer

7:30 P.M.

(Racing Adventure) Fast cars and fast romance fail to stem the appetite of a Grand Prix driver to become better than number two driver in a sports car team. His ambition to win becomes a mania, an almost fatal one! (Adult, Very Mature Youth.)

Shorts: "Catch Meow" (7 Min.)

"Wonderful Sicily" (19 Min.)

Brighter TV Viewing Ahead

Television viewers of the Indian Wells Valley can be reassured that brighter days are ahead.

To resolve many conflicting reports, rumors and questions were posed to Henry Wair, who is responsible for the upkeep and maintenance of the TV relay stations on Laurel and "B" Mountains.

In connection with the new TV units, which are being installed on "B" Mountain, Wair advised that replacement units had been installed for Channels 4, 7, 9, and 11, and that these channels with the exception of Channel 7 should be functioning normally by this weekend.

Wair urged that local viewers be patient, and indicated that TV reception on the channels mentioned will improve noticeably in the near future.

Negotiations are currently being conducted with representatives from Channel 29 in Bakersfield relative to introducing this channel into the local area. It is anticipated that a decision in connection with the introduction of Channel 29 to the Indian Wells Valley will be forthcoming shortly, Wair concluded.

NWC Thrift Shop Opens

A wonderful selection of clothing and many other attractive items will again be available to the general public when the NWC Thrift Shop again opens its doors on the 3rd of September.

Store hours for this operating season will be 9 to 11 a.m. on Tuesdays and 7 to 9 a.m. on Thursdays, according to Josephine Hoxie, Thrift shop chairman.

BHS Band To Meet

There will be a meeting of the Burroughs High School Band, previous members and new members, on Wednesday, September 4 at 8 a.m. in the band room at Burroughs High School.

This will be an important meeting announced Mrs. Lyal Viers, publicity chairman. There will be an introduction to the band for new members and distribution of instruments to those who need them.

Band instruments will not be used at this meeting, but marching drills will be held in preparation for the first football game which will be played in the next few weeks after the opening of school.

From _____	STAMP

TO _____	



WELCOME TO THE NEWEST CHINA LAKERS — These junior professionals, thirty-three in all, have been selected to join the professional staff of NWC. Recently they were

given an orientation of NWC operations and welcomed aboard by Capt. M. R. Etheridge, NWC Commander. The young scientists represent campuses located in 18 states.

TEMPERATURES		
	Max.	Min.
Aug. 23	92	55
Aug. 24	96	56
Aug. 25	95	64
Aug. 26	96	66
Aug. 27	99	72
Aug. 28	102	63
Aug. 29	104	66



Four NWC Employees Chosen To Receive WEPCOSE Awards



EDWARD CLEARY

WALTER FREITAG

LARRY PRINCE

DAVID SEIBEL

Four NWC employees selected by WEPCOSE Selection Committee and approved by the Office of Civilian Manpower Management for one year of graduate study are Edward Cleary, Code 3522, Walter Freitag, Code 5522, Larry Prince, Code 5531, and David Seibel, Code 4263.

WEPCOSE Awards provide financial support for advanced study and specialized training in weapons control systems engineering. Options available include training in aeronautics, astronautics, electronics, or underwater.

Edward Cleary, an Electronic Engineer in the Aviation Ordnance Department, plans to take courses in electronic systems analysis and design at the University of California at Los Angeles.

He first came to NWC in June of 1959 after attending Rockhurst College, Missouri. He received a B.S. degree from Rockhurst College in Physics in 1956 and a B.S. in Electrical Engineering from the University of Kansas at Lawrence, Kansas in 1959. He resides at 528 N Nimitz Street.

Walter Freitag will attend the University of California at Los Angeles and plans to pursue advanced studies in Information Theory and in Systems Engineering and Control Systems.

Freitag came to NWC in February 1959 and is currently employed as Head, Electronics Branch, Engineering Department. He attended San Diego State College and received a B.S. in Physics in 1959. Freitag, his wife Sharon, and two children reside at 44-A Sykes.

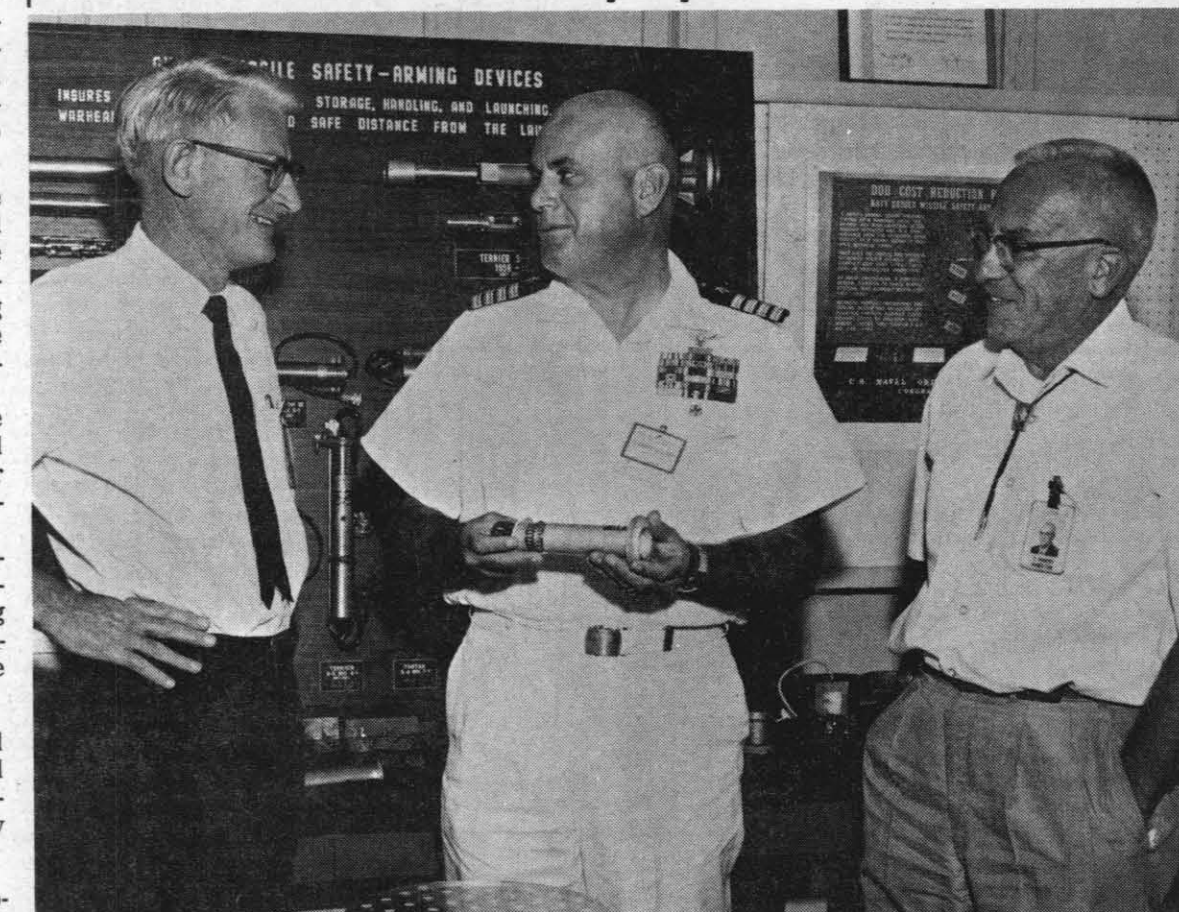
Larry Prince will attend the University of Washington and plans to expand his knowledge of transistor circuits and electronic systems while working toward a Master of Science degree in Electronic Engineering.

Prince came to NWC in June 1961 and is currently employed as an Electronic Engineer (Gen.) Supervisory in the Engineering Department. He attended Chico State College and received his B.S. degree in Electronic Engineering in 1961. Prince, his wife, Sandra, and four children reside at 110-A Wasp Rd.

David M. Seibel will attend the University of Michigan and plans to pursue studies in Electromagnetic Field Theory and Microwave techniques.

Seibel came to Corona Laboratories in June of 1966 and is currently employed as an Electronic Engineer in the Guidance Division, Missile Systems Department. Seibel, his wife Suzanne, and two children reside at 650 West 2nd Street, Corona, California.

Air-to-Air Missile Symposium Outlined



CAPTAIN F. W. AULT, USN, Special Assistant to the Commander Naval Air Systems Command, Washington, was a recent visitor to the Naval Weapons Center Corona Laboratories. Here he is being briefed on safety-arming devices by B. F. Husten, head of the Fuze Department (I), and C. R.

Hamilton, head of the Electromechanical Division. While here Captain Ault outlined plans for an air-to-air missile symposium. He also visited the Pacific Naval Air Command North Island, the Naval Air Station Miramar, the Naval Weapons Center China Lake, and the Pacific Missile Range.

First Director Of Navy Labs Honored — Earns DCS Award



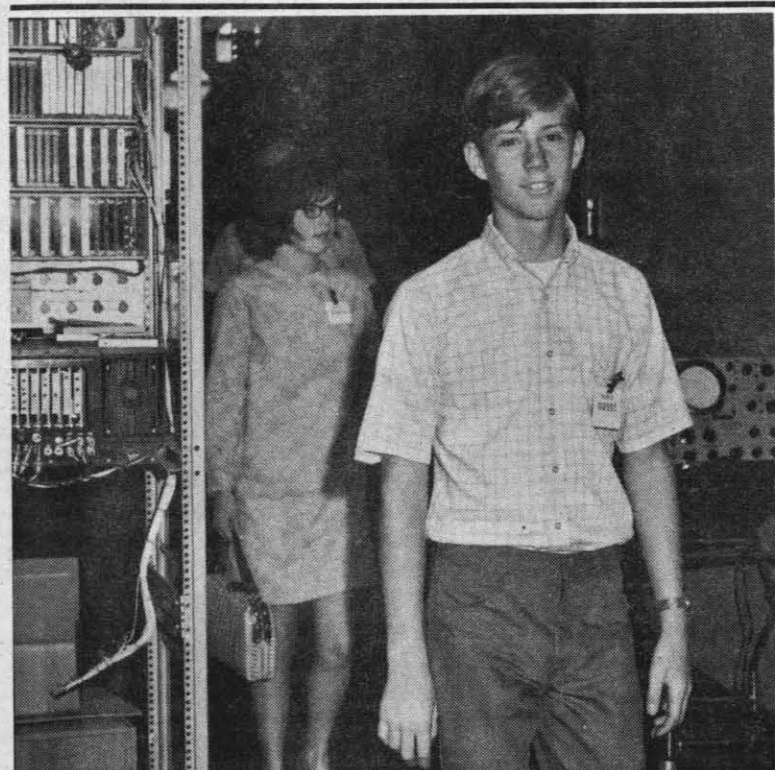
DR. GERALD W. JOHNSON

Former Director of Naval Laboratories Dr. G. W. Johnson was presented with the Distinguished Civilian Service Award on July 30 by Paul R. Ignatius, Secretary of the Navy.

In recognition and appreciation of Dr. Johnson's distinguished services as manager and leader of the complex of Navy laboratories, Secretary Ignatius stated specifically:

"He has clarified the functions of the laboratories and taken major steps to reorganize them. He has stimulated and instilled within the laboratories a fresh awareness of their role... both present and potential. His personal efforts have enabled the Navy laboratories to furnish material support to operations in Southeast

(Continued on Page 3)



STUDENTS TOUR LABS — Students from the Math-Science-Industry Class from San Bernardino High Schools file past electronic racks in the passageways of the Naval Weapons Center Corona Laboratories during a recent visit to that activity. They heard presentations on how research methods are employed there, and how math is indispensable in scientific research.

CPO Hawaiian Luau Ready for Sat. Night

CHAPLAIN'S MESSAGE

Dignity of Work

By Chaplain William L. Bransford



Jesus toiled in a carpenter's shop and Paul labored at making tents. In the thinking of both Jesus and Paul there was dignity and meaning in honest toil. As Paul wrote to Timothy: "Do your best to present yourself to God as one approved, a workman who has no need to be ashamed, rightly handling the word of truth." (1 Tim. 2:15).

Do your best. We are challenged today to work untiringly to achieve excellence in our work. Not all men are called to specialized or professional jobs; many are called to be laborers in ships, fields, and streets. But no work is insignificant. All labor that uplifts humanity has dignity and importance and should be undertaken with painstaking excellence.

As Martin Luther King, Jr., reminded us: "If a man is called to be a street sweeper, he should sweep streets even as Michelangelo painted, or Beethoven composed music, or Shakespeare wrote poetry. He should sweep streets so well that all the host of heaven and earth will pause to say, 'Here lived a great street sweeper who did his job well!'"

Do your best to present yourself to God as one approved. Do what you do in such a way that God can approve it. God gives us our powers and capacities, but he cannot develop a machine, create a poem, or fashion a world fraternity without men and women who use their skills and talents in ways he can approve. This is what Henry Van Dyke meant when he wrote: "Honest toil is holy service, faithful work is praise and prayer."

A workman who has no need to be ashamed. These words of Paul are a rebuke to all too many of us. We ought to be ashamed of work half done, of carelessness, inertia, and indifference. We should feel unhappy about letting our capacities and skills rust and decay. One man said of another: "He has a brilliant mind if only he would use it." Many a one-talent man has outstripped and moved beyond men of 10 talents because he nurtured and multiplied his one talent.

The workman who has no need to be ashamed is the man who makes the most of what he's got. At his work he is not the last to arrive or the first to leave. He is forever preparing himself for the next step ahead, seeing the relationship between his job and the whole naval establishment of which he is a part. He makes it his business to know more about the functions of his department than anybody else. He is always seeking ways of accomplishing more in less time. He is the man who uses his time and his talent creatively.

Rightly handling the word of truth. Paul wanted his young friend to relate the truth to life so that he and his contemporaries would have a valid sense of values related to the purposes of God. There is an old story of a man, out for a stroll, who came upon some men working on the construction of a new building. He stopped to enquire of one man: "What are you doing?" The man replied: "I'm making \$20 a day, but it isn't enough." He asked another man who said: "I'm carrying stone and mortar to the men up there." He questioned a third man who answered: "I'm helping to build a great Cathedral to the glory of God."

Think of what you are doing as having the higher purpose of the glory of God, and I am sure that all your tasks will take on a new enthusiasm and success. For, when you are a partner with God in what you do, how can you fail?



LET'S HAVE A LUAU — "Auntie Becky" and her Hawaiian entertainers will be at the annual CPO luau Saturday, August 31. Hawaiian roast pig and prime rib with all the Hawaiian trimmings will be served between 6-8 p.m. There will be colorful songs and dances by beautiful Hawaiian girls, a daring fire and sword dance and a dance band. All CPO members and guest members are invited, said Hal Cramer, CPO Club Manager.

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 below are effective from August 30 to September 6, 1968.

Branch Head (Metallurgist or Mechanical Engineer), GS-13 or 14, Code 4585, PD No. 345031 — The position described is that of Head, Materials Research Branch located in the Propellants Division of the Propulsion Development Department. The incumbent directs the Department's applied research team working on materials research and materials engineering studies.

File applications for above with Jan Bixler, Rm. 24, Personnel Department, Phone 72722.

General Engineer, GS-801-12 or 13, Code 5573 — Position is that of Project Manager for the Briteye and Padeye Weapons under the Conventional Weapons Manager in the Weapon Systems Management Division, Engineering Department. The incumbent is responsible for the production, performance, technical correctness, and evaluation of the complete Briteye and Padeye Weapon Systems assigned to the Division. He provides technical direction to project teams by written task assignments made up of key personnel from other line divisions. The incumbent must be an experienced general engineer with experience in mechanical and systems engineering with a background in aeronautical, chemical and electronic engineering.

Clerk-Typist, GS-322-4, Code 5562 — Incumbent provides secretarial and clerical support for the Branch Head, and Branch personnel as needed. Incumbent edits, types, and distributes finished correspondence and other written material originated by members of the Branch, including off-center correspondence and on-center memoranda. Determines that format, grammar, spelling and distribution are correct and meet established requirements.

File applications for above with Pat Gaunt, Bldg. 34, Rm. 34, Phone 71514.

Competitive Promotion Examination

Non-Local

A competitive Promotion Examination for Superintendent (Public Works) I, Annc. No. 8168) WF-NAD, issued August 26, 1968. Applications will be accepted from career and non-career conditional employees of naval establishments nationwide. File Application Card Form NAVEXOS-4155-AB, Registration Card Form NAVEXOS-4156-AB and Standard Form 171 with the Industrial Relations Officer, U.S. Naval Academy, Dept. 400, Hawthorne, Nevada, not later than the close of business on September 30, 1968.

St. James Singers Concert Tonight

The New St. James Singers of Southern California will be in Ridgecrest tonight, August 30, at the Community Methodist Church, 639 Norma St., at 7:30 p.m., to present a concert.

The group of 35 voices and instruments is a folk-singing group that has toured the United States, Canada, and Europe. They are presently in Canada and will be performing here on their return to Southern California, said Ron Nibbe, the group's director.

They will present an evening in "Celebration of Life" in the folk media with the standard folk instrumentation of guitars, banjo, string bass, tambourine, etc. Included in their presentation are vignettes of drama and sacred dances.

The group, which was the creation of the Reverend Fred Strathee, new pastor of Community Methodist Church of Ridgecrest, is now under the direction of Ron Nibbe, a recent graduate of California Western University at San Diego.

The public is invited to attend tonight's concert which, according to Mr. Strathee, "will be an unforgettable experience."

FOR AMERICA AND FOR YOU

Sign up for U. S. Savings Bonds, New Freedom Shares



Dr. G. W. Johnson Earns DCS Award

(Continued from Page 1)

Asia with a speed and effectiveness unmatched elsewhere in the Department of Defense.

"Dr. Johnson's vision, courage and tenacity . . . have laid the groundwork for the future success of the Navy laboratories."

Dr. Johnson became the first Director of Naval Laboratories in February 1966. He left his post with the Navy on July 31, 1968 to become Director of Field Development for Gulf General Atomic of San Diego.

Dr. Johnson has been succeeded by Dr. Joel Lawson, formerly Research and Engineering Consultant on the staff of Commander-in-Chief, Pacific Fleet at Pearl Harbor.

Dr. Johnson's most recent visit to the Naval Weapons Center was for the last annual meeting of the NWC Advisory Board, May 16-17, 1968.

Also he attended the May 16 luncheon meeting of the American Society for Public Administrators at the Officers' Club where he spoke on "Laboratory Management—A Headquarters View."

The Rocketeer

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DEADLINES:

News Stories Tuesday, 4:30 p.m.
Photographs Tuesday, 11:30 a.m.

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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 8:00 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—For information write P. O. Box 5436, China Lake, or phone NWC Ext. 725591.

Lee Outpoints Niblett For Light-Heavy Title

By ED RANCK

OAKLAND — Terry Lee may not be the best light heavy-weight around these days, but after his performance against Frank Niblett last week you have to concede that he knows his way around the ring.

Before an enthusiastic crowd at the Oakland Auditorium last Wednesday night, Lee demonstrated his ring savvy, jabbing and back-pedaling his way to a unanimous 12-round decision over the frustrated Ridgecrest battler.

Lee was the master all of the way in this battle of contrasting styles. The 23-year-old Concord, California fighter used the left jab effectively against Niblett's mauling style, and on the occasions, when Niblett did manage to get inside, it was Lee who got the best in the exchanges.

There were no knockdowns during the exciting battle, although Niblett hit the canvas twice after missing wildly with the left hook. The rough contest had the fans cheering most of the way and in the end they showered the ring with coins, the traditional sign of approval.

The two ringside judges say in 9-2 and 7-3, while referee Jack Downey had it 8-3 for Lee. The consensus in the press section was that Lee had won it 8-2.

WINS EARLY ROUNDS WITH JAB

It was evident in the early rounds that the fight would go Lee's way, if it went the distance. In the first round Lee scored occasionally with combinations while Niblett did most of his work at long range. Lee was the aggressor here and won the round by a close margin. Lee won the second round easily, setting up Niblett with the jab and scoring well with the left hook and right uppercut. Niblett was wild and ineffective throughout.

Niblett rallied in the third and at this point appeared to turn the fight around. It was perhaps the only time in the fight that he was in complete control. Niblett blocked most of Lee's punches in this round and scored solidly with left hooks to the head. Although Lee was never in trouble, he took a solid beating in this round.

The fourth round was even, with Lee working to the body and Niblett scoring with the left hook once again.

Lee took command of the fight in the fifth round. It was here that he began back pedaling away from Niblett and scoring with the left jab. Circling to his left with Niblett in hot pursuit, Lee consistently beat the local fighter to the punch and scored well when Niblett did manage to get in close.

The next three rounds were carbon copies of round five with Niblett chasing Lee, and Lee scoring with a stinging left jab. Niblett was wild with most of his heavy artillery during the middle rounds, fanning on left hooks during an action packed sixth round and hitting the canvas both times.

Niblett appeared to solve Lee's style in the eighth. Although the fighters remained at long range, Niblett began to cut down the angle on the running Lee. Niblett scored a few times with the left hook, but Lee was effective enough to gain a draw for the round.

The ninth was the best round of the fight. Niblett finally caught up with Lee and the two fighters slugged it out toe to toe most of the way. Niblett landed enough hooks to the head to win the round, although Lee did well during the furious exchanges.

NIBLETT TIRES IN THE TENTH

Lee's best round was number 10. At this point Niblett appeared to tire and was beaten consistently at long range and in close. Niblett tried once again to work inside, but Lee smothered the attack, and countered with several good shots to the head. Using the same tactics, Lee continued to score well through round 11.

Obviously behind on points, Niblett went for a knockout in round 12. Although Niblett threw most of the punches, Lee counter-punched well enough to take the round by a wide margin. In the end it was Lee, the boxer, who was scoring with the bombs.

It was the fifth fight between Terry Lee and Frank Niblett and according to those who had seen the two go at it before, it was by far the best. The win gave Lee a 2-1-2 edge in the series.

In the dressing room after it was over, Lee, appearing as fresh as he did before the fight, calmly talked about Niblett and his own future in the ring. Lee felt that this was perhaps his best fight and that he could have knocked out any fighter who was less game than Frank Niblett. "I would have knocked out most fighters in the late rounds, but Niblett is really tough," he said. Lee also stated that he had rested a bit during the middle rounds because he wasn't sure that he could go 12 rounds.

Niblett, bitterly disappointed by the loss, conceded that Lee had fought a smart fight. "I sure wish he wouldn't run so much though," he said. It was revealed after the fight that Niblett had gone into the ring with an injury that may have hampered him throughout the bout.

According to trainer Tony Crabhalo, Frank went into the ring with a pulled muscle in his rib cage, and this obviously cut down on his punching power. Niblett refused to use the injury as an excuse however, saying only that it did hurt a bit when he tried to punch.

Despite the loss, Niblett proved why he is one of the most popular boxers in the area. In our opinion, and that of many

Watusi Warriors Finish First In Slow Pitch League

The slow pitch league finished its regular season last Friday with the DOB's whipping Miller's Maulers 13-12 in the ninth inning.

Curt Hamilton shares the hero role with "Golden Arm" Allen Smith. Hamilton went five for five which included the run winning smash in the bottom of the ninth. Smith relieved Dick Reede in the fourth and held the Maulers to three hits and three runs while striking out six.

The game was high-lighted by some sparkling defensive plays from Smith, George Barker and Jack Brown. Barker in particular was involved in two beautifully executed double plays that blanked the Maulers in those innings.

The last standings reported are corrected below:

STANDINGS		Won	Lost
Watusi Warriors		9	1
DOB's		7	3
Miller's Maulers		5	5
Lardos		2	8
Marauders		1	9

Flag Football Swings Into Action, Sept. 24

The China Lake Flag Football League will swing into action on Tuesday, September 24, according to a recent announcement by Athletic Director Ray Gier. Approximately five teams are expected to compete in the league this season, with action continuing through late November.

Eight-man flag football rules will be used again this year with team rosters being limited to 20 players. Entries for military and civilian teams will be accepted at the Athletic Office, 77 Bard St., until 4:30 p.m., Friday, Sept. 13.

Enlisted Personnel

Rec. Center Opens

A new recreation center for all enlisted personnel and their wives or dates was opened on the Center Wednesday, August 21. Although the official opening and ribbon-cutting ceremony is scheduled for a later date, the recreation center's current hours of operation are: Wednesday, Thursday and Friday, 5 p.m. to 10 p.m.; Saturday, Sunday and holidays, 1 p.m. to 7 p.m.; closed on Mondays and Tuesdays.

Available activities include: pool (4 tables), ping pong, darts, playing cards, pinocle, decks, cribbage boards and television — all free of charge. Tournaments and other activities are planned for the future stated Recreation Center Manager PN3 Harville.

Entrance to the new enlisted recreation center is on the east side of the large quonset located at the corner of Blandy and Hussey on the Center.

ringside observers, Niblett is one of the toughest and gamest fighters to come along in years. The guy never quits fighting and this quality was evident in the Lee fight. Although clearly beaten at the end, Niblett would have probably gone another 12 rounds if he had the chance.

Niblett will most likely get another shot at Lee in the near future. It was revealed after the fight that Lee, who must defend the title in six months, will give Niblett the first shot at it, probably in about three months. Until then, Niblett won't be idle. He has accepted a main event go against Frank Casey and should be back in action in about three weeks against Casey at the Oakland Auditorium.



ENGINEER'S ARE 1968 CHAMPS — Engineers' manager Joe Seibold accepts championship trophy from Athletic Director Ray Gier in ceremonies marking the conclusion of China Lake's 1968 softball season. Engineers finished with a 25-3 record to edge the defending champion Ace TV ballclub.

—Photo by PH1 Gary D. Bird

Engineers Win Title Ace Loses Final Game

The Engineers won their final game of the season Monday evening, downing a tough Genge ball club 6-3, to recapture the championship of the China Lake Softball League.

Third place El Ranchito spoiled Ace TV's bid for another shot at the title by defeating the defending champions, 3-1.

El Ranchito and Genge entered the games Monday evening with hopes of spoiling it all for the co-leaders. Although the Chaparrals gave the Engineers one of their toughest battles of the season, it was the performance of El Ranchito's Billy Brown that decided it.

Brown hooked up in a tight pitching duel with Ace's Bert Andreason in a game that was in doubt until the very end. Brown allowed three hits in winning his eighth game of the year, while Andreason, a 24-game winner allowed six.

Ace Scores Lone Run

Ace scored their lone run in the bottom of the first. After Bret Harney got aboard on an error and was sacrificed to second, Max Smith singled up the middle to make it 1-0. Ed Ranck homered in the second to tie the game, then Brown homered with Jim Dowda aboard to make it 3-1.

Andreason set the Banditos down on three hits the rest of the way, in a near perfect performance. Ace had base runners in the second, third and fourth, but didn't threaten until the sixth inning. Andy Gilpin led off in the sixth with a triple to left center. After Bob Palmer and Dennis Carson had popped out, Gilpin was cut down at the plate trying to score on a wild pitch.

Genge gave the Engineers a tough battle for six innings before bowing to the new

Softball League

FINAL STANDINGS			
	W.	L.	GB
Engineers	25	3	
Ace TV	24	4	1
El Ranchito	20	8	5
Magic Cleaners	13	14	11½
VX-5	11	17	14
Genge	8	19	16½
NAF	7	20	17½
NWC	2	25	22½

BATTING AVERAGES

Lyons, VX-5	.419
Aucoin, VX-5	.414
Dowda, El Ranchito	.391
Brown, El Ranchito	.380
Brown, VX-5	.378
Newmyer, Engineers	.375
Sichley, NAF	.368
Palmer, Ace TV	.364
Moulder, Ace TV	.354
Gilpin, Ace TV	.353

RUNS BATTED IN

Short, El Ranchito, 33; Smith, Ace TV, 27;	
Crager, Engineers, 27; Aucoin, VX-5, 26.	

HOME RUNS

Beasley, NWC, 9; Gilpin, Ace TV, 9;	
Smith, Ace TV, 8; Carson, Ace TV, 8.	

PITCHING

Galloway, Engineers, 23-3; Andreason,	
Ace TV, 24-4.	

STRIKEOUTS

Galloway, Engineers, 338; Andreason,	
Ace TV, 260.	

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, capping, 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 Civilians — 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 Course.

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.

UCS B

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.

Proposal Preparation X408.02
September 20-October 12
Fridays 1900-2300
Saturdays 0800-1300
Room 107 Training Center

Government Contract Negotiation X408.03
October 25-November 15
Room 107, Training Center

Government Contract Pricing X408.072
November 29-December 21
Room 107, Training Center

Contracts Management Seminar X408.09
January 10-February 1
Room 107, Training Center

Elements of Government Contract Administration X408.01
March 7-March 29
Room 107, Training Center

Contract Changes and Terminations X408.08
April 18-May 10
Room 107, Training Center

Government Contract and Subcontract Writing X408.06
May 30-June 21
Room 107, Training Center



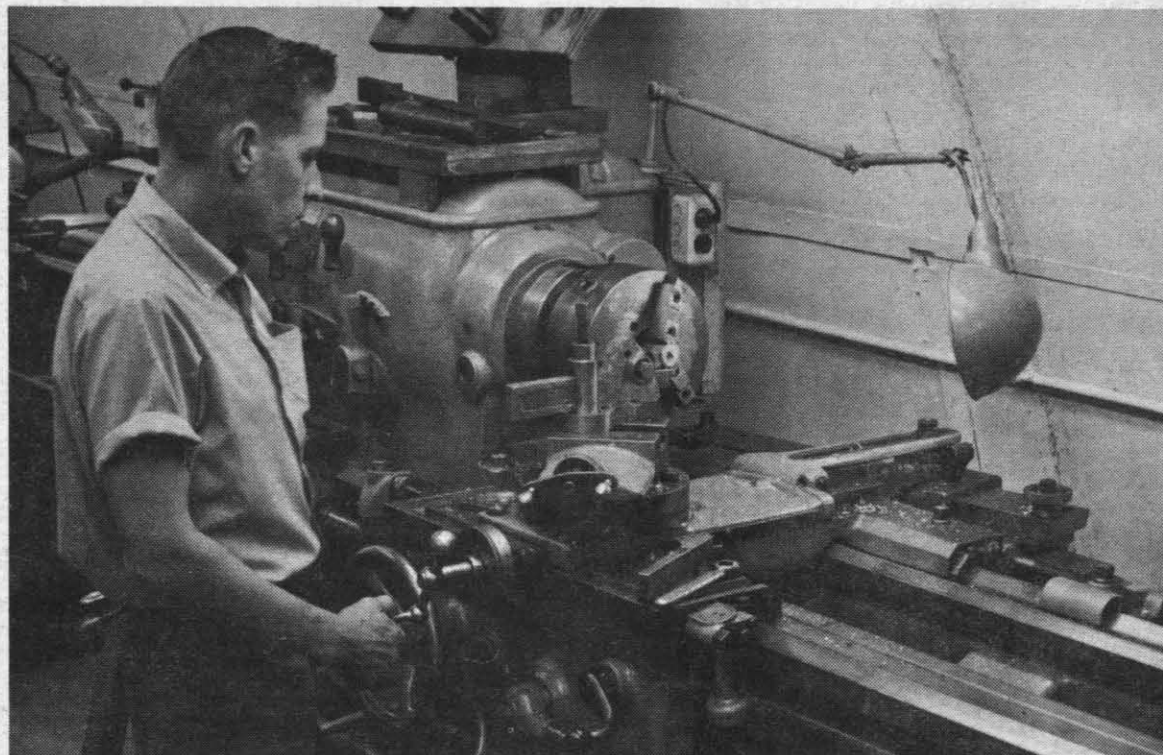
CONFERRING IN COMFORT — A group of NWC personnel hold conference in style in this newly furnished room at the Training Building. It features blackboards and 15

easy chairs and provides a relaxed atmosphere for group meetings. Scheduling for rooms at the Training Center is done by Code 654, Employee Development Division.



SWEATSHOP IN SESSION — Taking classes at the Training Center is not all fun and games. Tests are given to determine how meaningful and successful the courses are.

The students pictured are taking a qualifying test for a basic transistor course to be held on-center this fall. All training classes are taught by experts in the field.



THE MACHINE SHOP — There is a right and wrong way of doing things in a machine shop. If you are interested in learning the right way, check with Bakersfield

College Desert Campus about vocational programs and enrollment procedures. This shop is housed in "The Hut" which is located directly behind the Training Center.



AVOID THE RUSH —As you can see there is still some room left for one of the classes at the Training Center. The regular sched-

ule of classes will begin in September so watch for training announcements. Enrollment procedures are available at Code 654.

COURSE SCHEDULE — FALL 1968

- 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 Fall 1968. 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

U S C

SCHEDULE OF CLASSES

Three graduate courses in Public Administration will be offered at China Lake by the University of Southern California during the Fall Semester, 1968. 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 403, Administrative Systems Analysis: (4)

Instructor: To be announced.

Meeting Dates: To be announced.

Time: To be announced.

Location: Training Building, Room 205

Introduction to systems and organizational analysis; overview of electronic systems; developing work units and standards; procedures analysis and management planning.

PA 405, Organization and Management Theory: (4)

Instructor: Ross Clayton

Meeting Dates: Tuesdays, beginning 17 September 1968 and continuing for approximately 15 sessions.

Time: 1800-2200

Location: Training Building, Room 201

Organization and management; the executive role; decision making; bureaucracy; authority and power; systems; tactics and strategies in effective management.

PA 501, Public Administration Problems: (4)

Instructor: Dr. John Zuckerman

Meeting Dates: Thursdays, beginning 19 September 1968 and continuing for approximately 15 sessions.

Time: 1800-2200

Location: Training Building, Room 201

Investigations, reporting, and reviews of subject matter pertaining to problem areas in R & D administration relating to public functions.

REGISTRATION: Mr. Philip Hutchins, USC Extension Division, will hold registration in Room 107, Training Center on Friday, 13 September 1968 at 1300. Mr. Ross Clayton will hold consultation concurrently in Room 103 of the Training Center.

TUITION: To be eligible for full tuition (\$50 per unit) an employee must submit NOTS Form 12410/28 to Code 654 prior to registration, sign NAVEXOS 12410/12 at time of registration, and receive a grade of "C" or higher upon completion of the course. Employees may withdraw from a course, prior to the third meeting of the course, with no penalty. Payment of tuition is not required unless the above provisions are not met.

BOOKS: Texts have been ordered and will be available at the time of registration.

If further information is desired, contact Code 654 extension 71480.

U C L A

SCHEDULE OF CLASSES

REGISTRATION. Naval Weapons Center civil service employees may enroll in the herein listed UCLA courses without payment of registration fee. Instead, the employee will sign an agreement NAVEXOS 12410/12 (rev. 8-62) committing himself to reimburse the Naval Weapons Center for the registration fee if he fails to finish the course with a grade of C or better. NWC military personnel will be admitted without payment of registration fees on a space available basis. Individuals other than NWC civil service employees or military personnel will be required to pay the registration fees at the time of registration. Payment by the latter can be by personal check, payable to the Naval Weapons Center, or in cash. If in cash, the payment is to be made at the Disbursing Office in the NWC Administration Building and the receipt brought to the Education Office on registering.

All students who are civil service employees or military personnel shall submit at the time of registration NOTS Course Enrollment form 11ND NOTS 12410/28. This form certifies that the student is authorized to enroll in the specified course and that the

training sought is needed in the performance of his official duties. It must be signed by the student's supervisor and his department head or his designate. Registration will be held 0800-1200, 25 September-9 October in the Education Office, Room 1004, Michelson Laboratory.

WITHDRAWALS. The last day that NWC employees may drop a course without penalty of paying the registration fee is the date of the 4th meeting of the class. Dropping a course prior to that date requires a memo consigned by the employee's supervisor and addressed to the Education Director (Code 015) stating the reason for withdrawal. Any NWC employee who finds it impossible to continue in a course after it is well underway should contact the Education Director for instructions on how to request a waiver of the fee reimbursement requirement.

TEXTBOOKS. Each student is responsible for purchasing his textbooks. Order blanks are available in the Education Office.

CLEARANCE. All persons, whether or not employed by the Naval Weapons Center, who fulfill the prerequisites, may enroll in the UCLA Extension classes. However, those students without station passes must contact the UCLA Extension Representative in Room 1004, Michelson Laboratory, telephone extension 71759, several days before the beginning of the class in order that clearance can be arranged.

PREREQUISITES. The titles of courses listed as prerequisites for the fall quarter courses are as follows:

Engineering 6A, Use of Digital Computers in Engineering
Engineering 6B, Engineering Probability
Engineering 20A, Circuit Analysis
Engineering 100A, Circuit Analysis
Engineering 100C, Systems, Signals and Noise
Engineering 117A, Electromagnetics
Engineering 140A, Solid State Fundamentals
Engineering 191A, Linear Systems Solutions by Transform Methods
Mathematics 13C, Intermediate Calculus and Applications

EXTENSION PROGRAM SCHEDULE. Courses listed below are open to all students who satisfy the prerequisites.

*Starred courses may, by subsequent petition, be offered toward the satisfaction of the course requirements for the master's degree up to a maximum of 2 courses and upon recommendation of the major department and approval of the Graduate Council.

Engineering XI 100C, Systems, Signals and Noise (4) \$65

Instructor: R. M. McClung, M.S., Head, Development Division No. 3, Aviation Ordnance Department

Mon-Wed, 4:30-6:30 p.m., Training Bldg., Rm. 211 (21 meetings, 30 September-11 December)

Prerequisites: Engr. 6A-6B, 20A or 100A, Math. 13C

Text: Skilling, Electrical Engineering Circuits, (2nd ed.), 1965, (Wiley)

(optional) Arthurs, Probability (paperback), (Dover)

Continuation of course 20A or 100A: application of transform methods to systems analysis; linear system input-output relations; signals and spectra; modulated signals; introduction to random signals, noise, and modern communication systems concepts. Applications to various contemporary engineering systems problems.

*Engineering XI 120A, Introduction to the Theory of Random Signals (4) \$65

Instructor: W. F. Ball, M.S., Head, Analysis Branch, Weapons Development Department

Tues-Thurs, 4:30-6:30 p.m., Training Bldg., Rm. 203, (21 meetings, 1 October-12 December)

Prerequisite: Engr. 100C

Texts: Papoulis, Probability, Random Variables and Random Processes, (McGraw-Hill)

Gnedenko, Theory of Probability, (Chelsea)

Basic methods of analysis for random variables and random signals encountered in communication, control, data processing, and analogous engineering fields.

*Engineering XI 140B, Dielectric, Magnetic and Conductive Properties (4) \$65

Instructor: G. A. Hayes, Ph.D., Materials Engineer, Propulsion Development Department

Mon-Wed, 4:30-6:30 p.m., Training Bldg., Rm. 201, (21 meetings, 30 September-11 December)

Prerequisite: Engr. 117A recommended.

Text: Elliott, Electromagnetics, (McGraw-Hill)

Dielectric polarization: ferro-electric and piezoelectric materials; magnetization density. Diamagnetism, paramagnetism, ferromagnetism, antiferromagnetism, ferrimagnetism. Para- and ferromagnetic resonance. Tensor permeability. Statistical derivation of Ohm's and Joule's Laws

for metallic conductors. Fermi energy. Debye theory of specific heat. Weidmann-Franz Law. Time-harmonic conductivity.

*Engineering XI 192A, Mathematics of Engineering (4) \$65

Instructor: G. A. Hever, Ph.D., Mathematician, Research Department

Tues-Thurs, 4:30-6:30 p.m., Training Bldg., Rm. 211, (21 meetings, 1 October-12 December)

Prerequisite: Engr. 181A recommended

Texts: Pipes, Applied Mathematics for Engineers and Physicists, (McGraw-Hill)

Pipes, Matrix Methods for Engineering, 1963, (Prenice-Hall)

Applications of mathematical methods to engineering problems are considered involving systems whose mathematical formulation leads to the solution of ordinary differential equations. Topics include infinite series, matrix calculus, ordinary differential equations, and special functions.

(Tentatively Scheduled)

*Engineering XI 180B, Machine and Systems Biotechnology (4) \$65

Instructor: To Be Announced

Time, Date, and Place: To Be Announced

Prerequisite: Consent of instructor

Text: To Be Announced

Quantitative and qualitative methods for assessing man as a component in engineering design applications. Limits and optima of human psychophysiological capabilities applied to display-control design, decision-making problems, and task definition; problems of man-machine interactions in large-scale systems.

Engineering X 460.10, Aerodynamics of Aircraft and Missiles (4) \$65

Instructor: R. Van Aken, M.S., Head, Aeromechanics Division, Weapons Development Department

Mon-Wed, 6:45-8:45 p.m., Training Bldg., Rm. 203, (21 meetings, 30 September-11 December)

Prerequisite: Consent of instructor

Text: Carroll, Aerodynamics of Powered Flight, (Wiley)

Equations, Tables, and Charts for Compressible Flow, (NACA, Rept. 1135)

Survey of aerodynamics applied to aircraft and missiles. Aerodynamic heating, performance, control, stability considerations. Examination of available calculation procedures. Experimental methods.

Physics XI 121, Modern Physics (4) \$65

Instructor: J. E. Fischer, Ph.D., Research Physicist, Semiconductor Physics Branch, Research Department

Mon-Wed, 5:30-6:30 p.m., Training Bldg., Rm. 203, (21 meetings, 30 September-11 December)

Prerequisite: Consent of instructor

Text: Weidner and Sells, Elementary Modern Physics, (Allyn & Bacon)

Not open to credit for physics majors. Elements of atomic, solid state, and nuclear physics. Interaction of electromagnetic waves with matter. Basic concepts of wave mechanics. Discussion of representative recent developments in physics which may be of technological importance.

Physics X 436, Electrical and Optical Properties of Solids (4) \$65

Instructor: R. A. Roberts, Ph.D., Research Physicist, Physical Optics Branch, Research Department

Mon-Wed, 4:30-6:30 p.m., Training Bldg., Rm. 204, (21 meetings, 30 September-11 December)

Prerequisite: Consent of instructor

Text: Mimeographed notes to be distributed by instructor

The interaction of infrared, visible, and ultraviolet radiation with solids will be discussed. An understanding of the basic mechanisms relating electronic structure and optical properties such as dielectric constants, refractive index, absorption, and conductivity will be given using examples of semiconductors, insulators, and metals. The necessary elementary concepts of quantum mechanics will be introduced.

X806A, Scientific Russian (non-credit) \$50

Instructor: Miss Jill Rindlaub, M.A.T., Russian and German Teacher, Burroughs H.S. and Bakersfield College

Mon-Wed, 4:30-6:30 p.m., Training Bldg., Rm. 212, (18 meetings, 30 September-2 December)

Prerequisite: Consent of instructor

Text: Perry, Scientific Russian, (Interscience)

A functional approach to the study of Russian, designed for graduate students who are preparing for the Russian reading examination, as well as for engineers and other specialists who wish to read and understand Russian scientific and technical material. Includes basic elements of phonetics and grammar.

S&E Day Classes will be announced at a later date.

THE DESERT DIVISION OF BAKERSFIELD COLLEGE

Ridgecrest, California 93555

August 31 College aptitude and placement tests:
School and College Ability Test 8 A.M.
Reading Placement 9:30 A.M.
English Classification 10 A.M.
Mathematics Placement 11 A.M.
September 3 Open registration 5-9 P.M.
September 5 Open registration 5-9 P.M.
September 6 Bookstore to open in College Room I.

September 9 10 A.M. to 3 P.M.
 September 9-25 Instruction begins
 September 9-25 Bookstore open from 4 P.M. to 8 P.M.
 September 9-20 Late registration in college office
 for classes not closed

The Desert Campus of Bakersfield College is a fully accredited two-year college offering comprehensive academic and vocational programs. It is located on the southern portion of the Burroughs High School campus in Ridgecrest. For appointments and additional information, telephone (714) 375-1548.

The following is a partial listing of courses. For full listing, see Bakersfield Junior College Fall Semester 1968 brochure.

DAY CLASSES

Accounting 55A—PROPRIETORSHIP ACCOUNTING

Tues. and Thurs., 12:30-2:00
 Room 2, 3 units—Mr. Backus
 Prerequisite—Mathematics 51, may be taken concurrently.

Business 51—BUSINESS MATHEMATICS

Mon. and Wed., 10:00-11:23
 Business Skills Center, 3 units—Mrs. Grecu

English 1A—EXPOSITORY COMPOSITION

Tues. and Thurs., 10:00-11:23
 Room 2, 3 units—Miss Peck
 Prerequisite—Level 1 classification or a grade of C in English 50.

English 60—BASIC USAGE AND GRAMMAR

Tues. and Thurs., 10:00-11:23
 Room 3, 3 units—Mrs. Higbee
 Prerequisite—Level 3 classification or a grade of C in English 080.

Math A—ELEMENTARY ALGEBRA

Mon. and Wed., 12:30-3:00
 Room 3, 3 units—Dr. Cleaves

Math D—INTERMEDIATE ALGEBRA

Mon. and Wed., 10:00-11:23
 Room 3, 3 units—Mr. Keranen
 Prerequisite—Grade of C or higher in either one year of high school algebra or Mathematics A.

Office Skills 50B—INTERMEDIATE TYPING

Tues. and Thurs., 9:30-12:00
 Business Skills Center, 3 units—Mrs. Grecu
 Prerequisite—Office Skills 50A with a B or higher or a year of high school typing with a B or higher or Office Skills 54 with a C or higher.
 Office Skills 60A—ADVANCED TYPING
 Mon. and Wed., 2:00-4:30
 Business Skills Center, 3 units—Mrs. Grecu
 Prerequisite—Office Skills 50B with a B or higher or two years of high school typing with a B or higher or Office mentation of the Office Skills 54 Instructor.

Psychology 1A—GENERAL PSYCHOLOGY

Mon. and Wed., 12:30-2:00
 Room 1, 3 units—Mr. Riley
 Prerequisite—A qualifying score on a college aptitude test or a grade of C or higher in Psychology 51.

Social Science 53B—INTRODUCTION TO SOCIAL SCIENCE

Mon. and Wed., 12:30-2:00
 Room 2, 3 units—Mr. Rosenberg

EVENING CLASSES

Art 2A—BASIC DRAWING

Tues. and Thurs., 7:00-8:53
 Room G02, 2 units—Mrs. Guzman
 Business 51—BUSINESS MATHEMATICS
 Mon. and Wed., 5:00-6:23
 Room D29A, 3 units—Mr. Matulef

Business 53—INTRODUCTION TO BUSINESS

Mon. and Wed., 8:00-9:23
 Room L81, 3 units—Mr. Backus

Business Ad. 1A—PRINCIPLES OF ACCOUNTING

Mon. and Wed., 6:00-7:53
 Room L81, 3 units—Mr. Backus
 Prerequisite—Sophomore standing. 1A prerequisite to 1B.

Business Ad. 18A—BUSINESS LAW

Tues. and Thurs., 6:30-7:53
 Room L81, 3 units—Mr. Backus

Chemistry 30A—INTRODUCTORY CHEMISTRY

Mon. and Wed., Lecture 6:30-7:53
 Tues. and Thurs., Lab 6:30-9:30 (choose either Tues. or Thurs. lab, NOT both)
 Room D 29B, 3 units—Dr. Cleaves
 Prerequisite—Mathematics A or equivalent.

Chemistry 1A—GENERAL INORGANIC CHEMISTRY

Mon. and Wed., Lecture 5:00-6:23
 Tues. and Thurs., Lab 5:00-9:30
 Room D 29B, 5 units—Dr. Cleaves

Data Proc. 50—INTRODUCTION TO BUSINESS DATA PROCESSING

Tues. and Thurs., 6:30-7:53
 Room B02, 3 units—Mr. Zaharias

Data Proc. 56—CARD PUNCH OPERATION (16 weeks only)

Mon. and Wed., 6:30-8:53
 Administration Building, 1 unit—Mrs. Massaro
 Prerequisites—Data Processing 50 or approval of the instructor and ability to type at a net speed of 25 words per minute. May be taken concurrently with Data Processing 50.

Electrical Tech. 54A—FUNDAMENTALS OF ELECTRICITY

Mon., 5:00-9:53
 Training Annex 2, 4 units—Mr. Wood
 Prerequisites—54A or 55 prerequisite to 54B. Mathematics 53A must be taken concurrently.

Electrical Tech. 53—VACUUM TUBES AND SEMI-CONDUCTORS

Wed., 5:00-6:53
 Training Annex 2, 2 units—Mr. Wood
 Prerequisites—Mathematics 53A and Electrical Technology 54A or 55.

English 60—BASIC USAGE AND GRAMMAR

Tues. and Thurs., 5:00-6:23
 Room 2, 3 units—Mrs. Higbee
 Prerequisite—Level 3 classification or a grade of C in English 080.

English 8—SPELLING IMPROVEMENT

Tues., 8:00-8:53
 Room L 30, 1/2 unit—Mrs. Higbee

English 080—SPECIAL REPAIR ENGLISH

Mon. and Wed., 6:30-7:53
 Room B02, 3 units—Mr. Butler
 Prerequisite: Level 4 classification

English 90B—ENGLISH FOR FOREIGN BORN

Tues. and Thurs., 6:30-7:53
 Room M42, 0 units—Mr. Klaus

Industrial Drawing 30A—INDUSTRIAL DRAWING

Tues. and Thurs., 6:30-9:30
 Room M48, 3 units—Staff

Industrial Drawing 30B—INDUSTRIAL DRAWING

Mon. and Wed., 5:00-7:53
 Room M48, 3 units—Staff
 Prerequisite—30A or two years of high school drafting with grades of B or higher prerequisite to 30B.

Journalism 11A—PRINCIPLES OF EDITING

Mon. and Wed., 6:30-8:30
 Room L30, 2 units—Mrs. Higbee

Journalism 11B—EDITING PRACTICES

Mon. and Wed., 6:30-8:30
 Room L30, 2 units—Mrs. Higbee

Prerequisite: Journalism 11A or permission of instructor.

Journalism 11C—EDITING PRACTICES

Mon. and Wed., 6:30-8:30
 Room L30, 2 units—Mrs. Higbee

Prerequisite—Journalism 11B or permission of instructor.

Journalism 11D—EDITING PRACTICES

Mon. and Wed., 6:30-8:30
 Room L30, 2 units—Mrs. Higbee

Prerequisite—Journalism 11C or permission of instructor.

Machine Shop 53A—ELEMENTARY MACHINE SHOP

Mon., 5:00-9:53
 Training Annex 2, 3 units—Mr. Ladda

Math C—PLANE TRIGONOMETRY

Tues. and Thurs., 8:00-9:23
 Room 3, 3 units—Mr. Keranen

Prerequisite—Plane geometry and grade of C or higher in either advanced high school algebra or Mathematics D.

Math D—INTERMEDIATE ALGEBRA

Tues. and Thurs., 5:00-6:23
 Room 3, 3 units—Mr. Keranen

Prerequisite—Grade of C or higher in either one year of high school algebra or Mathematics A.

Math 5A—ANALYTIC GEOMETRY AND CALCULUS I

Tues. and Thurs., 6:30-7:53
 Room 3, 3 units—Mr. Keranen

Prerequisites—Mathematics B, C and D or equivalents. A qualifying test in the prerequisite math for this course will be given. Students who fail the test must enroll in Mathematics 1-3A. Students who do not take the qualifying test must earn a C or higher in Mathematics I prior to enrolling in 5A.

Math 52A—ELEMENTARY TECHNICAL MATHEMATICS

Tues. and Thurs., 5:00-6:23
 Room D29B, 3 units—Dr. Cleaves

Math A—ELEMENTARY ALGEBRA

Mon. and Wed., 5:30-7:53
 Room 3, 3 units—Mr. Keranen

Metal 51—METAL TECHNOLOGY

Wed., 5:00-8:53
 Training Annex 2, 2 units—Mr. Flagg

Prerequisite—Open to engineering and technical majors.

Mineralogy 6A—INTRODUCTION TO MINERALOGY

Tues. and Thurs., 6:30-8:30
 Room M41, 2 units—Staff

Prerequisite—Chemistry 2A or equivalent.

Office Skills 50A—BEGINNING TYPING

Tues. and Thurs., 5:00-7:23
 Business Skills Center, 3 units—Mrs. Grecu

Prerequisite—Open to anyone who has not completed a year of high school typing with a C or higher.

Office Practice 53A—OFFICE PRACTICE

Mon. and Wed., 6:30-9:00
 Business Skills Center, 3 units—Staff

Prerequisite—Office Skills 10B with a grade of C or higher. Two years of high school typing with C or higher. One year should have been taken in the junior or senior year.

Office Skills 52—FILING

Mon. and Wed., 5:30-6:23
 Business Skills Center, 3 units—Staff

Prerequisite—Office Skills 50A or equivalent.

Physics 60A—TECHNICAL PHYSICS

Tues. and Thurs., 7:00-9:53
 Room D29A, 4 units—Mr. Matulef

Prerequisites—High School algebra with a grade of C or higher and Mathematics 53A, may be taken concurrently.

Physics 5A—GENERAL PHYSICS

Mon. and Wed., 7:00-9:53
 Room D29A, 3 units—Mr. Matulef

Prerequisites—High School physics or chemistry and trigonometry, may be taken concurrently.

Physics 3A—GENERAL PHYSICS LABORATORY

Mon. and Wed., 8:30-9:53
 Room D29A, 1 unit—Mr. Matulef

Prerequisites—Physics 2A-2B, may be taken concurrently.

Psychology 51—APPLIED PSYCHOLOGY

Mon. and Wed., 5:00-6:23
 Room 1 (L30), 3 units—Mr. Riley

Secretarial Training 50A—ELEMENTARY GREGG SHORT-HAND

Tues. and Thurs., 7:30-9:53
 Business Skills Center, 4 units—Mrs. Grecu

Prerequisite—Completion of Office Skills 50A with a grade of C or higher or concurrent enrollment in a typing class.

Social Science 90—PRE-RETIREMENT SEMINAR

Tues., 8:00-9:53
 Room M40, 0 units—Mr. Pekrat

History 18—HISTORY OF CALIFORNIA

Mon. and Wed., 8:00-9:23
 Room B02, 3 units—Mr. Butler

Math 60B—BASIC ARITHMETIC

Mon. and Wed., 5:00-6:23
 Room D26, 3 units—Mr. Patterson

Math 53A—BEGINNING MATHEMATICS FOR ELECTRONICS

Tues. and Thurs., 5:00-8:23
 Room D29A, 3 units—Mr. Matulef

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.

Schedule Planning and Control Techniques

Instructor: Management Training Corporation
 Location: Training Center, Room 107

Dates: 17, 18, 19 September 1968
 Times: 0830-1530 (18 hours)

Enrollment will be limited to 20.

This introductory course is designed to provide participants with an in-depth exposure to project planning and control techniques which can be effectively applied to small project management. Program Evaluation and Review Technique (PERT) methods, Critical Path Method (CPM) techniques and Line of Balance (LOB) technology are developed through lecture and workshop. Emphasis is on simplified approaches and "do it yourself" planning techniques. Basic networking terms and concepts are developed with the class members, and then teams are formed to develop original network plans. These plans are later reviewed to point out the wide range of application of these techniques.

Management Improvement Training

Instructor: William Guthrie, Guthrie Assoc. Inc.
 Location: Training Center, Room 107

Dates: 3, 10, 17, 24, 31 October 1968
 Times: 0745-1630 (40 hours)

Enrollment is limited to 20.

Management Improvement Training deals with communication, motivation, leadership, teaching, and innovation. The purpose is to improve managerial skills. MIT is not a lecture program but is concerned with problem solving techniques.

Oral Communications Workshop

Instructor: Dr. Bertram Barer, Management Training Corp.
 Location: Training Center, Room 211
 Dates: 8, 10, 15, 17 October 1968
 Times: 0800-1430 (24 hours)

Enrollment is limited to 15 maximum.

This is a small-group workshop designed to stimulate and increase the effectiveness of individual oral presentation. Particular emphasis will be placed on techniques of individual expression, organization of ideas, effective listening and the presentation of informative and persuasive material. This workshop will involve extensive group participation.

Problem Analysis and Decision Making

Instructor: Kepner-Tregoe Associates
 Location: Training Center, Room 205

Dates: 21, 22, 23, 24, 25 October 1968
 Times: 0800-1630 (40 hours)

Enrollment limited to 20 maximum.

There are three elements in this program:

1. Basic concepts of decision-making: Before each session managers study a systematic review of element in the decision-making process.
2. Practice in using these concepts: Managers solve realistic problems in a simulated company, using what they have learned from their study, plus what they already know from experience.
3. Immediate feedback: As soon as the practice run is finished, managers get full information as to how well they put the concepts of decision-making into practice. They analyze their performance and then prepare for the next session.

PREREQUISITES: This course is not for beginners. Participants need to have managerial or supervisory experience. However, they do not need detailed knowledge of specialized functions such as manufacturing, R&D, or finance.

Clear Writing
 Instructor: Robert Gunning, Gunning Associates
 Location: Station Theater

Dates: 25 October 1968
 Times: 0830-1530 (6 hours)

Enrollment limited to 100.

Many good ideas never "get off the ground" because they are misunderstood by those who evaluate them. Good writing is far more than just recording data. It must command the reader's attention, and hold it; it must say exactly what the writer means; and it must convey information without any chance of misunderstanding. At this seminar, you'll learn step-by-step procedures for organizing your thoughts and getting them on paper. You'll learn the same techniques that have helped top-flight technical specialists and managers in many of the country's leading organizations.

PERT/CPM
 Instructor: Paul Novack, Management Training Corporation
 Location: Training Center, Room 107

Dates: 19, 20 November 1968
 Times: 0830-1530 (12 hours)

Enrollment limited to 20.

This advanced course is intended for personnel who currently or in the near future will be directly responsible for the collection and analysis of PERT time and PERT cost project data. A background in PERT/CPM networking techniques is assumed.

EFFECTIVE READING
 Instructor: Chester Jensen
 Location: Training Center, Room 107

Dates: 20, 27, September 1968
 4, 11, 18, 25 October 1968

1, 8, 15, 22 November 1968
 Times: 0730-0920 (Basic) 20 hours

0940-1130 (Advanced) 20 hours
 1230-1430 (Basic) 20 hours

Enrollment in each session limited to 25.

Designed to improve reading skills, this course involves learning techniques which develop greater comprehension and increased reading rates.

Management Information Systems
 Instructor: Mr. Eugene Shultz, UCSB
 Location: Training Center, Room 212

Dates: 26, 27, 28, 29, 30 August 1968
 14, 15, 16, 17, 18 October 1968

Time: 0800-1630 (40 hours) with evening sessions tentatively on Monday, Tuesday and Thursday.

Enrollment limited to 30.

This course will explore the development and implementation of a management information system through workshop sessions emphasizing the solution of actual systems problems. As the emphasis is not upon technical aspects of data processing, the course is completely hardware independent. Discussion will focus on Management Information System concepts from the manager's point of view. The manager's task of integrating various applications and the subsequent development of supporting data base will be thoroughly explored.

Procurement Management for Technical Personnel
 Instructor: Jim Coulson, Don Davis, (Harbridge House, Inc.)
 Location: Training Building, Room 205

Dates: 4, 5, 6, 7, 8 November 1968
 Times: 0830-1600

Enrollment limited to 30.

Both text and case materials stress the necessary interrelationships among technical and contracting personnel leading to a more adequate definition and understanding of the requirement as it relates to the soliciting of sources, evaluating proposals, awarding contracts, and exercising proper post-award surveillance thereafter.

Project Management and Technical Data
 Instructor: Dwight C. Berry, TRW Systems
 Location: Training Center, Room 205

Dates: 16-27 September 1968
 Times: 0730-1130 (4 hours daily-2 weeks) 40 hours

Enrollment limited to 35.

This course is designed to acquaint managers with the relationship of management functions to data elements and program control. Direct reference to IDP2618, the Navy Planning System, and the control of technical data from program inception to fleet use will be covered.

Conference Leadership
 Instructor: Dr. George Lehner, UCLA
 Location: Training Center, Room 101

Dates: 27, 28, 29, August 1968

5, 6, 7, November 1968

Time: 0800-1630 (24 hours)

Enrollment limited to 15.

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

Basic Leadership Training Lab

Instructor: Dr. George Lehner, UCLA
 Location: Greentree Inn, Victorville

Dates: 2-6 December 1968
 Times: To be announced

Enrollment is limited to 15.

This course provides an opportunity to experience yourself more fully in your relations with others; to learn more about yourself and your impact on others; to understand your own feelings and how they affect your behavior toward others; to become more sensitive to the ways people communicate with each other; to learn active listening for meanings and feelings; to learn how people affect groups and groups affect people and to learn how to help groups function more effectively.

Effective Listening

Scheduled as needed.
 Coordinator: Carl P. Flagg
 Location: Training Center

Suggested for interested NWC personnel

Session No. 1 — This course is presented in two parts. A "pre-test" followed by approximately one and one-half hours of "listening and response."

Session No. 2 — Begins with a "listening and response" session followed by a "Post-Test" and an "Attitude Test."

Both sessions may be given on the same day, however, it is recommended that the second session be given the following day or with a time differential of no more than a week.

Introduction to Systems Analysis
 Instructor: Civil Service Training Commission

Location: Training Center, Room 205
 Dates: 16, 17, 18, 19, 20 December 1968

Times: 0830-1600

Enrollment is limited to 30 maximum.

The course is designed to develop the ability to apply the basic techniques and methods of computer systems analysis. This course is specifically designed for those preparing for assignments in systems analysis or those who must deal directly with systems analysis or computer user personnel.

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.