

**RADAR TARGET SIMULATOR** being tested by C. E. Hendrix, project engineer. The device, which was designed to permit extensive tests to guided missiles at a minimum of cost and delay, was developed in Michelson Laboratory by the electronic development branch personnel in the instrument development division of the Test Department. Results have been successful in the first tests made with the device.

## Target Simulator Devised for Use In Testing NOTS Guided Missiles

The electronic development branch of the Test Department has completed development of an instrument which promises to be of considerable use in the guided missile field. It is called a radar target simulator and simulates the signals a radar utilizes when tracking an actual aircraft.

Normally, guided missiles are tested using radio-controlled drone aircraft as targets. This technique has several serious limitations. For example, missiles which will be used in future defense of our country will certainly be expected to perform against targets which are faster and perhaps more maneuverable than currently available drones which are obsolete World War II airplanes.

There is high cost involved in maintaining and flying airplanes, particularly of the drone type. Also the tests involving the use of aircraft require extra coordination and oftentimes result in undue scheduling problems. The problem of positioning the aircraft properly in space to achieve a particular desired effect is often difficult and time-consuming.

The radar target simulator is used to simulate a real target aircraft that is to be tracked by a radar. Intelligence relating to the target position is utilized as guidance information for the missile. It is the purpose of the simulator to perform the same way it would when tracking a real target. When this occurs, it can then provide the normal information to the missile as would be the case if it were to fly against a real target.

This target simulator was designed to do just this job—to fool the radar into thinking it is tracking an actual target. The simulated aircraft position is provided by a pair of special cams. As the cams turn, the

target simulator translates their position into radar elevation and azimuth angles. The radar follows these command angles exactly as it would if an aircraft were flying the course described by the cams. Since it is the cam design, and not aerodynamics, which limits the performance of the simulated target, maneuvers are possible which would be fantastic by present standards.

Normal radar tracking is not smooth, since an ordinary aircraft appears to a radar to be "glinting," much as a bright reflecting object such as a shiny automobile appears to flash in the sunlight. Such glint introduces "noise" or "jitters" into the radar, and makes it follow in a trembling sort of way, like an old man with the palsy. Since the cams in the target simulator are smooth, it is necessary to introduce artificial glint into the radar. This glint is produced by two electronic devices known technically as low frequency random noise generators.

Preparation of a program for the target simulator begins with the specification of the target course, speed and altitude that are to be simulated. These data are entered into the IBM 701 calculator which disgorges several pages of figures which represent the exact shape of the cams. A skilled instrument maker takes these figures and from them cuts cams from tool steel, accurate to less than .001 inch. Once the cams are produced, which may take two to four days, many tests may be made under conditions more repeatable than could be done with active aircraft.

This device, it is hoped, will continue to prove useful in the weapons testing field for it has the advantages of flexibility, economy, and ease of operation.

## REPORTS FROM Technical Departments

### Students Sought For Psychology Class On Station

Plans to offer a course in psychology, entitled Applied Human Relations 181ABC, under the UCLA extension program at China Lake have been announced by H. R. Richardson, Station director of education.

A minimum enrollment of 15 students is required. The course offers three units of college credit, and there is a \$27 tuition fee. Dr. Paul Buchanan, former staff psychologist at the Pasadena Annex and now head of the training division, Personnel Department, at China Lake, will be the instructor.

The course will cover such material as understanding human relations problems; developing skills in interpersonal relations; group management and leadership skills; interviewing, counseling and conference techniques, and is designed for supervisors, administrators and others interested in personnel problems.

Persons interested in enrolling in the course should call the office of the Station director of education, 71562, or visit the office, Room 20103, Michelson Laboratory, in person.

### New Publishing Head Announced

A. E. Tyler, former head of the publishing division, Technical Information Department, left the Station recently to accept a position in the publishing department of the Hycon Manufacturing Company in Pasadena. He came to NOTS approximately four years ago from the Navy Electronics Laboratory in San Diego.

C. E. Van Hagen, former head of the editorial branch, Technical Information Department, has been selected to assume the duties of the position vacated by Mr. Tyler. He has been on the Station since May, 1950, coming here from Madison, Wisconsin, where he was executive secretary of the Forest Products Research Society.

Mr. Van Hagen, his wife, Lorraine, and their two daughters, Connie, 15, and Stephanie, 10, reside at 101-B Entwistle.

### SEA BEE MEETING SET

Highlighting a meeting of the local SeaBee unit, which will be held on Thursday, will be the swearing-in of new members by LT M. D. Bastin, commanding officer of the U.S. Navy and Marine Corps training center in Bakersfield. All former and potential SeaBees are invited to join the unit.

### Station Takes Part In Sonic 'Boom' Flight Conference

Four flight installations of this area recently sent representatives to Edwards Air Force Base for a conference on public complaints about super-sonic flight "booms" and other problems.

Included were CDR S. W. Vejtasa, USN, Commanding Officer Naval Air Facility, and Winsor Josselyn, Station civilian public information officer; Lt. Col. G. Beale, USAF, George Air Force Base; Maj. R. Green, USAF, Palmdale Airport; and Capt. E. Westling, USMC, Marine Corps Auxiliary Air Station, Mojave.

Col. W. D. Brady, USAF, deputy chief of staff for operations at Edwards, said that some residents have claimed that sonic disturbances cracked buildings and frightened farm livestock. The increasing rate of such complaints calls for a uniform means of taking action on them and also for educating the public about high speed flight problems.

R. W. Horner, technical director at Edwards, said that the causes and results of "booms" caused by aircraft entering and leaving supersonic speeds are not yet fully understood. The present efforts are aimed at conducting such flights at high altitudes and over the least populated areas of the desert, he stated.

CDR Vejtasa reported that the China Lake area had no difficulties with super-sonic flights.

### Commendation Told By RADM Schoeffel

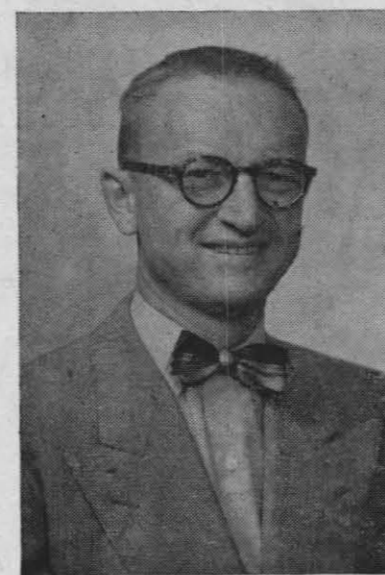
RADM M. F. Schoeffel, USN, Chief of the Bureau of Ordnance has noted officially that NOTS was commended by the Commander Air Force, Pacific Fleet, for training assistance offered at the Station.

The communication signed by Captain C. K. Bergin, USN, Assistant Chief of Bureau for Research, read as follows: "The Chief of the Bureau of Ordnance notes with gratification the expression of appreciation for the training assistance afforded Pacific Fleet Air Arm Groups by the Naval Ordnance Test Station, Inyokern.

"It is requested that appreciation of Commander Air Forces, Pacific Fleet and the Chief of the Bureau of Ordnance be conveyed to the personnel involved in supplying this service to the Fleet."

Text of the basic letters was given in last week's Rocketeer. It included the statement that the assistance given here had "increased air group weapon readiness."

## News from Pasadena



**E. J. JONES**, newly appointed Head, Personnel Division at the Annex, succeeding Norman J. Newcomb.

### Management Allots Space at Foothill

Final decisions on space allocations at Foothill for units to be moved from Thompson Lab were made at a recent meeting of the Management Council. Cut-off date for changes in building plans was set for October 1, with an anticipated on-board count of approximately 740.

Space allocation approved by the Management Council includes: location of Code 75 contract-liaison group of three in building 14 rather than building 8; Code P809 and secretary to move from building 9 to building 3; Code 75 film group will occupy Room 010, building 5 through December and thereafter when documentary film work at the Annex is required the necessary people from Inyokern will work in the Photo Lab; provide space adjacent to gage lab in building 3 for a Code 55 group of 13; retain the present Chemistry Lab in building 3; provide space in building 14 for a Code 55 group of 21; and to require all moves at Foothill to have the approval of Code P19.

In order to improve communications at the Annex, the Management Council approved an increase in the distribution of Management Council meeting minutes.

### New OinC Invited To NFFE Meeting

CDR W. T. Groner, USN, who has succeeded CDR R. A. Thompson, USN, as OinC, has been invited to address the National Federation of Federal Employees meeting at Vasa Temple, 2031 Villa, Pasadena at 8 p.m. next Thursday, Sept. 30. This is a one-time departure from the usual meeting night.

### Cdr. Groner Assumes Duties of OinC

With the good wishes of Capt. R. F. Sellars, USN, Acting Commander of the Station, CDR W. T. Groner, USN, took over the reins as Officer in Charge of the Annex this week.

CDR Groner relieved CDR R. A. Thompson, who was ordered to report as Commanding Officer of the USS Stembel, in an impressive ceremony at Thompson Lab September 17.

In taking his leave of the Station, CDR Thompson said:

"The atomic age has changed surface warfare tactics considerably but the mission of the Navy remains the same—the mission is to gain and to maintain control of the seas, the surface, the depth, and the air above the seas. The greatest threat in accomplishing this mission is the submarine. The Navy needs weapons to defeat this threat.

"As a man who is going to the Fleet and will use these weapons may I urge you not to lose sight of the challenge to provide us with the weapons which can make the Navy supreme."

Captain Sellars commended CDR Thompson on his tour of duty and welcomed CDR Groner to his new station.

CDR Thompson and CDR Groner were entertained with a party at the Elks club Friday night.

### Ex-Employee To Get Additional Cash Suggestion Award

An additional award for a Beneficial Suggestion submitted by an employee who has left the Station has been requested by the Department of the Navy.

Charles Torri, formerly an automobile mechanic in the Public Works division, suggested an improved method of setting the distributor cam angle on Navy automobiles and trucks. The estimated savings to NOTS the first year was \$590.40. Mr. Torri received, in March 1952, a Beneficial Suggestion award of \$30.

Now, two years later, and after Mr. Torri has left the Annex, word comes that his suggestion has been adopted at the Naval Air Facility, Severn River Naval Command, Annapolis.

N. B. McCune, Office of Industrial Relations, Department of the Navy, writes, "In view of its wider application, the originating activity is requested to arrange for the payment of an additional award of \$10. This is in addition to the \$30 paid by the originating activity."

Many thousands of dollars have been saved to the government through the suggestion program.

## United Fund Drive Slated for Oct. 18-29

The United Fund Drive at the Annex will be staged from October 18 to 29, Dr. J. L. Alfred, chairman of the drive, announced.

Every effort will be made to get 100 percent participation by employees in the drive designed to give financial aid to the Community Chest, Red Cross, Operation Santa Claus, Cancer Society, Cerebral Palsy Society and the Heart Foundation.

"With 96 percent employee participation and a total collection of

\$8016.01 last year, the United Fund Drive proved a success," Dr. Alfred said. "Although we have less personnel on board this year we expect to get as good or better participation as that of last year."



**CHARLES REDMOND** has been named executive secretary of the United Fund Drive at the Annex.

Serving on the general committee with Dr. Alfred will be Charlie Redmond, executive secretary; E. J. Jones, Head, Personnel Division, advisor; and CDR P. Troth, Head, Supply and Fiscal Division. Mabry Van Reed and L. B. Kelly will direct the drive at Thompson Lab, Morris Dam and Long Beach. John Zivic and John Fawcett will direct the drive at Foothill. Additional workers will be appointed at a committee meeting at 2 p.m. Monday.

### New Insurance Rates Effective

Recent group insurance balloting resulted in a two-thirds majority for dropping the life insurance coverage with the Federal Life Insurance Company in favor of the government life insurance policy. The new rate for hospital and surgical policy will go into effect in October, Mrs. John Cox, ESO Insurance Committee chairman, announced.

The new rates to be collected in October will be, employe only, \$3.10; employe and wife, \$6.10; employe and family \$8.50; and employe and children \$5.50.

The group insurance committee is currently studying other private health plans submitted by various companies, Mrs. Cox said.

Serving on the insurance committee with Mrs. Cox are Irma Marten, Public Works; Glenn Bonham, Supply and Fiscal; Al Torsak and M. W. Rosen, Underwater Ordnance Department.

### Technical Papers Given by Two NOTS Scientists

G. V. Schliettett, Acting Head, Undersea Warfare Research Division, and Sidney Thurston, Propulsion Division of the Underwater Ordnance Department, have returned from England where they presented papers at the Joint Admiralty-U.S. Navy meeting on Hydroballistics. Mr. Schliettett also presided at a session on the subject of propulsion and hydrodynamic noise.

Mr. Schliettett's paper, prepared in collaboration with J. B. Kendrick and A. G. Fabula of the Undersea Warfare Research Division, deals with "The Prediction of Water-Entry Trajectories." Mr. Thurston presented a paper written in collaboration with H. T. Yerby on "Application of Pumpjets to Torpedo Propulsion." He also read a paper prepared by C. G. Beatty and L. A. Lopes of Guidance and Control Division on "Techniques for Predicting Stability Coefficients of Torpedoes."

The conference, co-sponsored by the British Admiralty and the Office of Naval Research, was held at the Admiralty Research Laboratory at Teddington, Middlesex, England and the Armament Research Establishment, Fort Halstead, England. In addition to NOTS, other organizations represented from this country were the Bureau of Ordnance, Bureau of Ships, the David Taylor Model Basin, the Naval Ordnance Laboratory, California Institute of Technology, Pennsylvania State University, the Aerojet-General Corporation, and the Propulsion Research Corporation.

Mr. Schliettett and Mr. Thurston visited various torpedo experimental establishments in England and Scotland.

### SAFETY SLOGAN

"Let's connive to stay alive in Fifty-Five."—Catherine Murphy, office of the Associate Technical Director for Pasadena. This slogan is one of a series developed as a result of a recent prize contest.

# SPORTS

## Ford Retains Lead In Golf Tourney At Halfway Mark

At the halfway mark in the 72-hole medal play tournament currently being held at the Satellite Lake Golf Club, Jim Ford is still leading the way.

The second week-end of play was finished up with Ford holding a score of 140, and leading Paul Somerson, the runnerup in the championship flight, by two strokes.

Floyd Rockwell was leading the first flight with 156, and John Rice and John Winslet were tied for second with 164. In the second flight, Jack Lewis was out in front with 172, followed by Mike Mamula with 175. Leader of the third flight competition was Paul Walker with 177, and Felix Martinez was second with 184.

A flag tournament has been scheduled to be held Sunday. Entries in the 72-hole medal tourney may enter the flag tournament competition by paying a fee of 50 cents. The golfer's average in the 72-hole tourney will be paired with his handicap score to determine the number of strokes.

The regular monthly meeting of the Satellite Lake Golf Club will be held on next Wednesday at 8 p.m. in the club house.

## Colts To Play Flag Football

Burroughs Junior High School footballers — the Colts — will open their 1954 season tomorrow with a game at Edwards, using a new system of play which is being inaugurated throughout the league this year.

The new system, called flag football, involves the use of a flag in the belt which has to be taken from the runner by the opposition before the man is stopped. Last year, the regular touch style of play was in vogue. The teams are composed of six men each.

John Parry, coach of the junior high teams, has announced that almost 75 boys showed up for the first practice session which was held last Monday. Approximately 30 are out for the heavyweight, and 40 for the lightweight teams.

The schedule is as follows: Sept. 25—Burroughs vs. Edwards at Edwards, 10 a.m.; Oct. 9—Burroughs vs. Ridgecrest at Ridgecrest, 10 a.m.; Oct. 13—Burroughs vs. Boron at Burroughs, 3 p.m.; Oct. 23—Burroughs vs. Randsburg (tentative); Nov. 6—Burroughs vs. Tehachapi at Tehachapi, 10 a.m.; Nov. 13—Burroughs vs. Ridgecrest at Burroughs, 10 a.m.

## Burros Sportraits

**Jim Wisler**—senior, 185 lbs., 6 ft. 1 in.—was on the varsity last year but didn't play much ball.

Wisler has improved quite a bit this year and will play both offensive and defensive tackle but more offensive because he is a good blocker.

He is the number one candidate for starting left tackle position.

**Harold Wilkes**—senior, 130 lbs., 5 ft. 7 in.—is a letterman from last year's squad and also the smallest man on the team.

Wilkes, a track man, is very fast and elusive and his small size makes him a hard back to tackle.

He was only a substitute last year but this year will probably be the starting left halfback.

## Waterfowl Hunting Opening Changed

Opening date for the San Luis Wasteway waterfowl shooting area, has been changed from Nov. 3, the original date, to Oct. 9. Shooting in this area is permitted only on a reservation basis.

Reservation applications are now available at the Community Services office in bldg. 35 (housing office building). If all the reservations are not used in advance of the opening date, then according to Commission regulations, hunters will be accommodated on a first-come, first-served basis to fill the quota.

## Ford Takes Honors In Fresno Tourney

Jim Ford, local golfer, traveled to Fresno last week-end where he won the trophy for low net score in the annual Moose Association tournament held at the Port Washington Country Club.

Ford shot a score of 78, topping approximately forty contestants in the 18-hole event.

He is currently leading the scoring in the 72-hole medal play tourney which is being held at the Satellite Lake Golf Club.

## WORLD SERIES TV SET HERE

All World Series baseball games, which are scheduled to start Wednesday, will be televised at the China Lake Community Center. The snack bar will be open during the lunch hour, 11:30 to 12:30, for the convenience of baseball fans, according to LT Raymond Orrock, Special Services officer.



ALL LINED UP and ready to go is the Burroughs varsity squad. The first game of the season will be tonight when they will travel to Lancaster to meet the Antelope Valley gridders. Pictured in the line positions are, left to right, Pete Spooner, Mike Madison, Woodrow Chartier, Don Wright, Jim Ferguson, Jim Wisler, and Bob Giles. At quarterback position is Bob Wilson, backed up by halfbacks Harry Smith, left, and Harold Wilkes, right, and fullback Tom Jordan.

## Deer Season Opens Tomorrow Morning

Many nimrods of the local area will be trying their luck against those wary and alert big game tomorrow morning when the 1954 deer hunting season officially opens one half hour before sunrise.

All of the local area will be open for a four-week duration with the exception of Inyo and Mono counties which will only be open for three weeks. A forked horn specimen is the legal bag limit.

Hunters possessing a valid hunting license for the State of California may obtain a deer tag for a \$1.00 fee at any sporting goods store or at the community services office.

Anyone taking a trophy and not wanting the hide may turn it over to the Veterans Administration to aid hospitalized veterans in rehabilitation work. The hides will be collected and handled locally free of charge by any sporting goods store or the local sportsmen's association.

Hunters are urged to observe all safety precautions with both firearms and fire.

## Devils Take First In Girls' League

Season play for the Powder Puff League officially ended Wednesday evening when the Wildcats met the Raiders. Top league team was the Devils, winning seven and losing one.

Taking the second place position were the Raiders, with six wins and two losses, followed by the Tigers with a five and three record. The Bulldogs and Wildcats were tied for fourth position.

A game has been scheduled for Saturday night at 8 p.m. between the All-Stars and a team from Bakersfield or Lancaster.

## Burros-Lancaster Tilt There Tonight

The Burros travel to Lancaster tonight for the opening game of the 1954 football season against Antelope Valley High School.

Coach Meeder is dressing 33 men for tonight's game and all of them are looking for revenge for last year's 12-6 loss to the Antelope Valley squad.

The Burros go into tonight's game with a line averaging about 175 lbs., and a backfield that averages about 150. Speed and deception are the factors that may bring a victory back to Burrough High School tonight.

Burroughs' probable starting line-up is listed below.

**Kick-off 8 p.m.**

- RE—Pete Spooner
- RT—Mike Madison
- RG—Woody Chartier
- C—Don Wright
- LG—Jim Ferguson
- LT—Jim Wisler
- LE—Bob Giles
- QB—Bob Wilson
- LHB—Harold Wilkes
- FB—Tom Jordan
- RHB—Harry Smith

The Burroughs' "B" team open their season tomorrow in Kernville at 2 p.m. against Kern Valley High School.

The "B" squad played good ball last year winning four and losing four and are looking forward to a victory tomorrow afternoon to open the season right.

No starting line-up was available at press time.

## LOCAL NET MEET SET

Netters from San Bernardino and Bakersfield will be the guests of the China Lake Tennis Club at a three-way tennis meet planned for Sunday at the Station courts.

## Fall Lecture Series To Open Monday At Station Theater

The first program of the fall lecture series, sponsored by the Kern County Union High School and Junior College District, will be presented at the Station theater Monday at 8 p.m. Offered free to residents of the area, the film-lecture entitled, "Guatemala" is a part of the adult education program.

Clifford J. Kamen, noted world traveler and lecturer who has appeared previously on the Station,



Clifford J. Kamen

will give a running commentary with the film, which encompasses the history of Guatemala from the days of the ancient Mayans up to the present time.

The first sequences of the film show the route one must travel through Mexico to reach this land of exotic beauty. Lush scenery and fascinating people go to make up this land which has the most interesting and colorful native life of any of the Latin American countries.

A contrast is shown between life among the wealthy in Guatemala City and the sections of the country where natives still practice pagan rites. One sequence shows the strange worshipping practices of modern Indians who pray to a pagan idol in the mountains and then return to the village church to pray to the Christian God, because they say they do not know which is the more powerful and they do not wish to offend either.

Details in the life of the Indians are shown including "market day" in Chichicastenango, a famous Guatemalan city, where long lines of natives bring in produce from the mountains, carrying the fabulous loads on their heads.

The film also includes animated maps, drawn to illustrate the ways of this ancient people.

## EM DANCE SATURDAY

An enlisted men's dance, featuring music by the BlueNotes, will be held from 8:30 to 12:30 p.m. Saturday at the Anchorage. Refreshments will be served by the Enlisted Wives' Club.



WATCH YOUR STEP IN HERE is the thought indicated by Jim Kennedy, Pvt., left, and Homer Dreman, PH1, right, as Larry Hatfield, FT3, a "provocative and curvaceous" blonde sings "Mandy from 50-Blandy" in the Commissary Store scene from the all-servicemen's show, "This Is the NOTS," which is finishing a week-long run tonight at the China Lake Community Center.

## 'This Is The NOTS' Ends Big Week Tonight At Community Center

Tonight brings the final offering of "This Is The NOTS," a fast-moving revue in thirteen scenes that opened Monday at the Community Center building and has pleased crowds all week.

Under the direction of Bea Goode Moore, who wrote words and music for thirteen musical numbers, the big cast of military personnel offers a mixture of comedy and sentiment keyed to sure-fire Station situations.

The show opens on a natural note called New Arrivals at NOTS with The Nosey Guys, Lawrence R. Hatfield FT3, David Shaw AB1 and C. E. Thompson singing "No Face To Go," supplemented by "Water, Water, Water," by David P. Hoffman and Paul Hoffman, seamen.

C. E. Thompson AM1, is next, singing "Empty Mail Box." This is followed by the hilarious Commissary Comics which brings Larry Hatfield as "Mandy From 50-Blandy," the show-stopping woman shopper, and commissary workers "Dutch" Dreman, PH1, and Pfc. James G. Kennedy, USMC.

Inspection Day is the ever-popular marine drill routine offered by Pfc's Teddy K. Willey, and Frank Browne and "squad." "Brig Blues" is then sung by Pfc. James G. Kennedy, although there is no connection between it and the foregoing scene.

Mess Hall Massacre brings a return of the two Hoffmans and then "Stricknine Stew" sung by the three Nosey Guys as they brew a witches' broth. "No One For Lovin'" is sung by Hatfield and Kennedy in the Unlucky Out Of Love scene.

Another episode with plenty of laughs is A Nightmare At NOTS with John J. Gomez SKSN as Corny Frump, the wife, and Dreman as the husband, wherein the voice of

conscience changes the husband's mind about a daughter dating a serviceman.

"Nightwatch" is sung by Gomez in the Lonesome At Nightwatch scene. The following pantomime of Hardly Alive On "395," with the song "Tale Of A Rod" by Dreman and the Nosey Guys is another comedy highlight that rates very big.

The scene Fathers In Waiting brings the anguish of fathers at a hospital as offspring arrive, and also "Joy, I Have A Boy," which again offers Gomez and his excellent voice.

Activity at the Enlisted Men's Club is featured in Unpleasant Surprise, with its dance burlesque by Robert LeFeuvre HN, as Dora Snort, and Dreman as the disillusioned EM. Second episode of the scene is "Why Must You Go Away," sung by LTJG Donna E. Haney, NC USN, to David Shaw.

The next scene brings Shaw singing, "The Girl I Met Here."

Finale is the entire cast singing "How We Love Our U.S.A."

Production members include LeFeuvre, Kennedy, Shaw, Thompson, Gladys Radek, Henry E. Sipes, Dreman and members of the Enlisted Men's Wives Club.

Production advisors include CDR James L. Carter USN, LCDR C. Christie, USN, and LTJG R. J. Orrock, USN.

Musical accompaniment was furnished by Mrth Hammerberg at the piano, and Gene Williams, SA, drums. The show is sponsored by the Enlisted Men's Club.

## HIGH COST OF LIVING

Since the price of feather pillows has increased, it looks as though down is up.

## Engineers' Day . . .

(Continued from Page One)

motor, to show the great power of such propulsion.

Visitors will remain in the same grandstands to witness four air-to-ground events. An AD4 Skyraider, piloted by LT Frank J. Wickenheiser, will fire eight high velocity air rockets (Holy Moses) in salvo. An F2H2 Banshee, piloted by LCDR I. M. Applebaum, will then fire two seven-round package launcher salvos of the 2.75 inch Mighty Mouse rocket.

An F7U2 Cutlass, flown by Joe Angelone, test pilot for the Chance-Vought Aircraft Co., Dallas Tex., will fire 32 rounds of Mighty Mouse rockets. Finally, a Banshee, piloted by CDR G. H. Mahler, III, operations officer at the Naval Air Facility, will make a vertical tow-target pickup.

A demonstration of the M45 powered camera tracking mount, used on range tests, will be made during the firing runs.

The guests will then be taken to the static firing range at Area R to see "shape" charges fired against ground targets. These charges have a contour that concentrates their explosive power.

The buses will take the visitors to Michelson Laboratory for conducted tours of Michelson Laboratory.

It is planned to separate the visitors into two groups for these range tours in the afternoon to facilitate travel. Cameras and binoculars should be left in the buses during stops for the demonstrations.

## Candidates . . .

(Continued from Page One)

speak on behalf of his re-election, as will Harold J. Powers, Republican, now holding the office of lieutenant-governor of California. Stephen W. Edwards of San Bernardino will speak for Sen. Kuchel.

The candidates, or their representatives, will be introduced by Harley Tillitt, head of the computing branch in the Research Department, who will serve as program moderator, and each speaker will be given 15 minutes to outline his platform and qualifications for election.

A question and answer session will follow, with written queries submitted by members of the audience, and the program will be concluded by a reception which will give local voters a chance to meet and discuss specific political problems with the candidates.

## Wage Scale . . .

(Continued from Page One)

ment of Defense in the Los Angeles Harbor area, from February through April of this year. Approximately 140 different types of jobs found in some 90 private industrial establishments were studied in this wage analysis.

New wage schedules reflecting the appropriate hourly rate for all per diem employes will be published early next week.