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### SURVEILLANCE RADAR

By

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RADAR and DME Section, LA-365

Since Rex Brown's article on radar in the old Region Six News February 1953, five new airport surveillance radar (ASR) systems have been commissioned by CAA in the eleven western states and four more are currently under construction.

Rex told how the word "radar" was coined from a contraction of the phrase Radio Detection and Ranging. In other words, detect and determine the distance of objects by means of radio waves. The system used to accomplish this, he compared to that used by flying bats. The bat emits short sound "beeps" and listens after each "beep" for a returning sound echo, in the meanwhile measuring the time between the moment it emitted each beep and the moment it heard the returned echo. This time interval is converted by the bat into terms of distance from it to the object which caused the echo to be reflected back.

Radar does essentially the same thing, but instead of using sound waves which travel at 1100 feet per second in air, radar uses radio waves which travel at a speed of 186,000 miles per second; or one nautical mile in 6.18 millionths of a second. To the basic system, described by the definition of the word radar, was added the ability to determine direction also. In the ASR this information is displayed on a cathode ray tube variously referred to as the "indicator", "PPI", "scope" or even "picture" tube in the operating console.

The ASR is an interesting and important air navigational aid. Portrayed on its "picture" tube is the terrain, including buildings, mountains, etc., it "sees" through its revolving antenna 360 degrees around its location. Objects seen for distances up to 50 nautical miles, or to the designed range of the particular system, are displayed in the "picture". Not only objects on the ground but objects such as aircraft in the air space above the ground are shown. Each of these are shown at their exact distance and direction from the location of the radar antenna. A complete picture is "painted" every  $2\frac{1}{2}$  seconds. Objects such as aircraft which are in motion are thus shown in a new position in the picture every  $2\frac{1}{2}$  seconds and the radar operator sees

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the aircraft as a "blip" or moving spot of light. Details in the picture, depending on their size and distance, are completed in a short period of time; approximately five one-millionths to 618 one-millionths of a second in a radar with 50 nautical mile range. To accomplish this, electronic timing within the system must be established and maintained precisely in some circuits to a fraction of one-millionths second. Some of the latest radar test equipment can do this to 6 one-billionths of a second. In comparison to radar timing a lifetime seems to be a millenium.

The ASR is not capable, in its present form, of determining the height of objects it sees; consequently, objects on the ground and aircraft directly above such objects are portrayed on the picture tube at the same instant, distance and direction. If the radar sees them equally well, they blend together in the "picture" making it impossible for the Airport Traffic Controller operating the radar "scope" to distinguish between them. To overcome this limitation in the basic radar, research and development incorporated a "Moving Target Indicator" into the system. This feature permits the radar operator to effectively cancel or reduce intensity in the picture of the stationary objects seen, leaving in view only those objects in motion which are changing their distance from the radar antenna.

Video mapping and automatic VHF/DF are being added to the ASR systems to improve their accuracy and provide a means of positively identifying an aircraft equipped with a VHF transmitter.

Video mapping is a device to apply on the inside of the face of the "picture" tube, an accurate map of the geographical area surrounding the radar showing only desired landmarks such as coast lines, tall objects, other navigational aids, etc. Only essentials needed for conducting traffic control and for checking the accuracy of the radar alignment are shown. These maps are applied to the display in the same manner the other "picture" information previously mentioned is applied. Transparent map "overlays" installed on the outside of the tube were previously used and, depending on the angle from which they were viewed by the controller, a varying error due to "parallax" was introduced in his observations. Video mapping practically eliminates such error.

At present it takes the controller more than 3 seconds to identify a particular aircraft after instructing the pilot to maneuver that aircraft so the maneuver can be seen for this purpose. The controller with VHF/DF operation into the ASR system can request the pilot of an aircraft to make a short transmission on his VHF transmitter; the VHF/DF will instantly locate this signal and cause a line to be drawn through that aircraft's "blip" on the ASR display, thus identifying him faster than can be done by the "maneuver" method, and not require the pilot to make an undesirable change in the direction of his flight.

Remember the days when radio broadcasting was in its infancy and we estimated the quality of a receiver by the number of vacuum tubes it used? A 12 or 15 tube receiver was really super. ASR-3 uses over 700 vacuum tubes. One item of test equipment alone uses 33; more than the total number in one channel of a simultaneous radio range system. Premature tube failure is a major cause of facility outage. With so many tubes in use, as we have in ASR, you must realize the problems in which the Electronic Specialist becomes involved in his efforts to maintain 100% facility availability on a day to day 24-hour basis. The newer ASR equipment has

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## REGIONAL ADMINISTRATOR'S COLUMN

April has been a busy "come and go" month. This article is being written between sessions of the annual meeting and conference of the Airport Operators Council here in Seattle. The meetings began on Sunday afternoon, April 24 with registration and a reception. The conference will continue through the twenty-ninth. On that date they will have adjourned to San Francisco to inspect the new terminal there. Prior to departing Seattle they will inspect the Seattle-Tacoma terminal building. The membership of this Council consists of thirty-eight of the larger United States Airports. Among the speakers at the conference were Wellwood Beall, Senior Vice President of Boeing Airplane Company; Joseph P. Adams, Vice Chairman of the Civil Aeronautics Board; Walter P. Quist, President, Minneapolis Board of Park Commissioners; Sir Alfred LeMaitre, Ministry of Transport and Civil Aviation, United Kingdom; and Senator Warren G. Magnuson, United States Senate.

Last week in Tucson, Arizona the American Association of Airport Executives held its annual conclave. This is a larger organization numerically than the Airport Operators Council. I don't know just how many members they have, but some four hundred of them came to Tucson for the deliberations, conferences, and some relaxation. The meetings there were more of the panel type discussion groups, to help the Airport Manager with his problems, and fewer formal speeches. The annual dinner on the last day was addressed by Carl Squier, Senior Vice President of Lockheed Aircraft, and any of you who have heard him know what a fine speaker he is.

Mr. Herb Howell, Director, Office of Airports for CAA is attending the meetings here in Seattle. His Deputy, Merle Hemphill, and Joe Johnson were at Tucson. Charlie Winger, our Airports Division Chief went both places.

Back to Seattle. We held a meeting of the Seattle Airspace Sub-committee on Tuesday the twenty-sixth. Then there was the annual Airport Management Meeting sponsored by the Washington State Aeronautics Commission, the Association of Washington Cities, and the Washington State Aviation Association. We attended the afternoon sessions on Tuesday while the AOC delegates were taking the tour through the Boeing plant.

Among other happenings of the "come and go" variety, Walt Plett moved in with us the end of March. He undertook his new assignment with such synchronism smoothness that already he "belongs", and is carrying a goodly share of the workload.

On the "go" side, Morrey Plotkin left us to take a responsible position in industry (Slick Airways), Director of Operations Research. I thought Government had all the high sounding titles! We will miss Morrey for his cheery helpfulness, his constructive criticism, and for himself. Our best wishes for success in his new venture.

A number of other things have been happening too. The Air Coordinating Committee has arrived at a unanimous decision on the TACAN - VOR/DME situation. VOR/DME will be continued - - TACAN will be installed where necessary to meet military tactical requirements. The installations must avoid interference. Further development will be conducted by ANDB to determine what if any system should eventually supplant VOR/DME as a part of the common system. The full text of the ACC action will be published shortly.

CAA TOASTMASTERS ACTIVITIES

The CAA Toastmasters Club 1004, now entering its 4th year of service to those who wish to improve their public speaking ability, will hold meetings on alternate Wednesdays at the Regional Office. Meetings will start at 4:30 PM and will be held in the large conference room. All who would like to see "how it's done" and, at the same time, hear some mighty fine talks, are invited to sit in on these meetings. The first meeting at the Regional Office will be held May 4th.

Officers for the coming 6 months were installed March 30th at a joint meeting of CAA Toastmasters Club 1004 and the Hawthorne Toastmasters Club #1246 held at the Cockatoo Restaurant. The meeting which was attended by the members wives, saw the following officers installed:

- President . . . . . Harold Orville
- Educational Vice President . . . . . Walt Blankman
- Administrative Vice Pres. . . . . Charles Grosh
- Secretary . . . . . Kirk Barry
- Treasurer . . . . . Howdy Miller
- Sergeant-at-Arms . . . . . Irving Shedd
- Publicity Director . . . . . Harold Smith

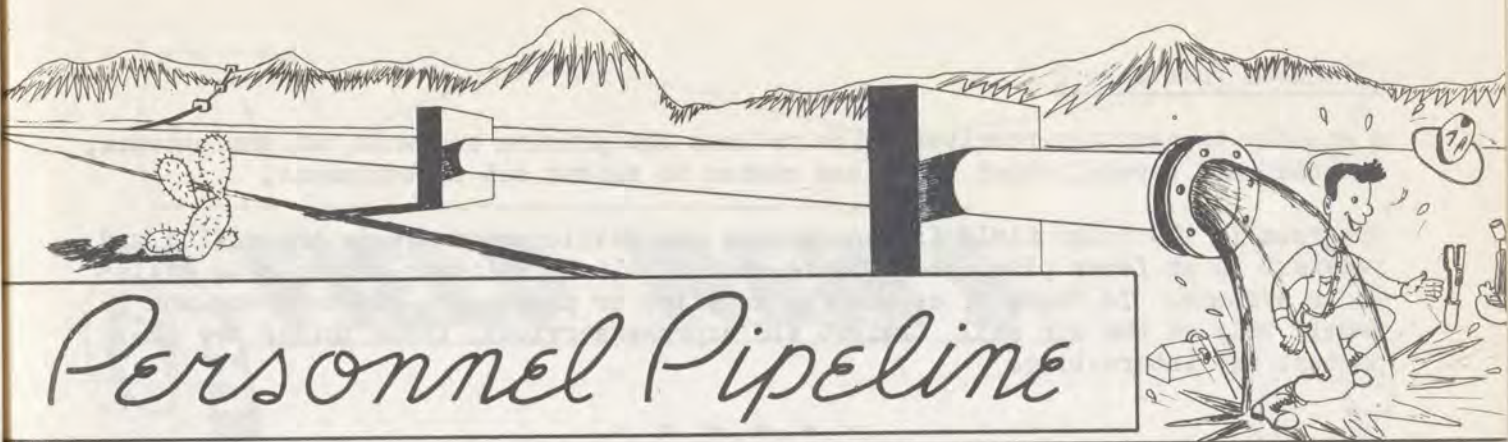
Meetings will be held as usual each Wednesday after pay day at Kim's restaurant, corner of La Brea and Centinella Avenues, Inglewood. Meeting time at Kim's is 5 PM to 7 PM. Those who would like dinner along with their visit to Toastmasters are welcome at Kim's on May 11th.

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YOU DON'T SAY - OR DO YOU!

We saw an old adage quoted in the newspaper the other day which may have a lot of meaning for many of us. The saying is -

"What Peter says about Paul tells more about Peter than it does about Paul."



### Scheduling Annual Leave

It has been noted that some employees take annual leave in dribbles and drabbles instead of the 5-day or 10-day period required by Administrative Order No. 169. While there are, no doubt, emergency conditions requiring short periods of leave, the habit of "vacationing" in such a manner is not considered adequate to the average person's needs. Often a person feels that an occasional day or two off is the most beneficial for him. Assumption - maybe ball games, or work pressure, or - - - one of the reasons usually given in such circumstances is the pressure of the workload. While meeting workload requirements is important, we should like to emphasize also that it is a basic responsibility of every supervisor to plan work schedules to provide for adequate vacation periods for their employees. On those jobs where the pressure of work is the greatest the necessity for scheduling of adequate vacation periods becomes more important.

It is a well known fact to the medical profession and to insurance companies that the incidence of heart trouble, high blood pressure, digestive disturbances, many neurotic conditions, and other disabilities, occurs to a much higher degree among persons of the "non-vacationing" type. All employees should plan and take an adequate vacation - - it is humane, it is sensible, and it is good business.

### Federal Income Tax Indebtedness

As a result of an item in the CAA Memo, dated March 15, 1955, a number of employees have inquired as to the possibility of liquidating their income tax indebtedness by payroll deductions.

The procedure mentioned in the Memo applies only when a person is unable to make satisfactory arrangements with the Internal Revenue Service to pay his income tax indebtedness. In such cases, the Internal Revenue Service issues a notice of levy to the Agency and, under the law the current salary is subject to seizure for delinquent taxes. In the event of a separation before the indebtedness is liquidated, final salary check, travel reimbursement, lump-sum payment for annual leave, or any credit balance due from the savings bond account, may be used to satisfy the lien. Should these amounts prove insufficient, any balance of indebtedness may be certified as a claim against the retirement account balance.

An employee who desires to increase the amount of his deductions for income tax purposes during the current year may arrange with the payroll unit through the submission of a new Form W-4 to have the amount of deductions increased. For example,

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a standby transmitter-receiver which reduces the problem somewhat but the antenna, console, and several other items are common to either set of equipment.

Progress in the radar field is continuous; new developments are in the offing and interest is at fever pitch among those who establish, maintain and operate CAA's radar systems. To those of us who fly as pilot or passenger, and to those who merely rely on the air mail, freight and express services, these things are important and interesting.

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Personnel Pipeline - continued from page 5

if the current deductions are based on 2 dependents, an employee could submit a new W-4 for 0 dependents. Any adjustment then in his tax would be made when he files his Form 1040 on or before the following April 15.

Any employee desiring more information concerning the liquidation of delinquent income taxes should consult the Personnel Branch.

ABOUT THE AOS AND ES EXAMS!

On the Airways Operations Specialist examination, the examining group is in high gear. This also goes for the Electronic Specialist test. If complete information is not available at the field stations, contact LA-90 at once. Also, the test will be amended to include GS-9's so any non-status GS-9's may not need to demote after all. LA-90 will notify those SES, GS-9's who should file to obtain status.

Recently, one of the District Supervisors was able to get some free publicity in a local newspaper about CAA's need for Electronic Specialists. We still need more candidates at the GS-6 and GS-7 levels. Only free advertising is permitted.....

MORE ABOUT WAGE BOARD!

The first pay period after July 1 is still the target date on changing CPC's over to either Classified or Wage Board (WB) jobs. There is still some doubt about a few isolated jobs as to whether they'll go Classified or WB. Right now, it looks like the following will be WB: Electro-Mechanical Specialists (those which have not been transferred to Electronic Specialists), General Mechanics, Painters, Laborers, Warehousemen, Regional Office Shops Technicians, A&E Mechanics, and Garage Mechanics. The conversion will not have any adverse effect on the salaries of the persons involved. This is one of these rare situations where the person cannot lose and may gain.

Wage Board employees will lose none of the benefits they now enjoy -- the only difference is the way their salaries are determined. Such benefits as leave, retirement, permanent status, 40 hour work week, appeal rights, etc., all remain the same.

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## DOUGLAS, WYOMING

### COMMUNICATION STATION

During the recent snow storm which isolated the town of Douglas, Wyoming, and five hundred itinerate motorists, a dramatic episode took place in which one of our Communicators, Mike Perrotti, played an important role.

Mr. Henson and his pregnant wife were traveling on Highway 59 in the vicinity of Bill, when they came upon two men whose car was stranded in the deep snow. They picked up the men and attempted to get back to the Bill Store but got stuck in the snow several miles from their destination.

The quartet stayed in the leaky station wagon for two days and two nights, finally making their way to a ranch. Mrs. Henson was suffering from shock and exposure and a doctor was called. A snow plow was put into service to clear the road but got bogged down about 8 miles north of town and the doctor who was following the plow was forced to turn back.

Two National Guard officers, Captains Mike Perrotti and Russell Rohlff took the Guard plane and piloted by Captain Perrotti, landed on the highway in front of the Ranch home. Mike set the L-19 on a road barely wide enough for his landing gear. In order to take-off into the wind it was necessary for Mike and two Highway Patrolmen to lift the tail of the L-19 clear of the snow banks on the road. This in itself was somewhat of a feat of strength.

Shortly after take-off the prospective mother began to moan and Mike's hair raised on end. He immediately called Douglas Radio and requested advice from the doctor who was standing by at the INSAC. The doctor suggested that Mike make haste in returning to the airport where the ambulance was standing by with the proper equipment to deliver the baby.

Mike arrived at Douglas Airport in record time and the ambulance with police escort dashed off to the hospital with the prospective mother. The grateful mother named the baby boy after Mike.

We presented Mike with a new set of wings - - Flying Diapers.

## DIVISION HIGHLIGHTS

### AIR CARRIER DIVISION

Pursuant to CAB Docket No. E9160, CC&N No. 64 assigned to Pioneer Air Lines is transferred to Continental Air Lines effective March 31, 1955. Preparation for the merger has occupied much of the time of officials of Continental Air Lines as well as the assigned agents in recent months.

United Air Lines has on order for delivery in 1956 two Douglas DC-7's, five Douglas DC-6A's and ten Douglas DC-6B's. They will add 21 to 25 aircraft to their fleet in 1957. From 600 to 700 additional flight crew members will be required in the next two years to operate these additional aircraft, or about 25 additional flight personnel per month.

United Air Lines has experienced considerable difficulty obtaining qualified airmen and are considering the possibility of establishing a flight school to give sufficient training to private pilots in order for them to obtain their commercial certificate and instrument ratings.

United Air Lines was authorized on March 28, 1955, to conduct tests on new type anti-collision lights for one year on Douglas DC-6 aircraft.

Bonanza Air Lines has officially made application for their new route Phoenix-Blythe-Thermal (Indio)-Ontario (Riverside)-Los Angeles-Burbank. Burbank is going to be made a new terminal for one flight. The effective date is scheduled for April 25, 1955. Also effective on this date, Bonanza Air Lines will start non-stop service (one round trip daily) between Las Vegas and Reno.

Los Angeles Air Service has begun passenger service into Santa Ana Airport. The Santa Monica Heliport has been reinstated with mail and cargo service being initiated on April 15. Negotiations are under way for several new heliports and additional passenger stops at Disneyland, Downey, Pasadena, Riverside, North Hollywood and San Bernardino.

Western Air Lines has completed arrangements with Mountain States Telephone Company for the installation of a remote VHF communications station to be located in the vicinity of Evanston, Wyoming, and to be controlled by their Salt Lake City radio operators. Operation is expected to be available within 60 to 90 days.

Consolidated Airlines' C-46 aircraft N-1258N has been leased to Wien-Alaska Airlines of Fairbanks.

Northwest Airlines started operation of their Lockheed L-1049G aircraft from Seattle to Tokyo and Manila on March 4, 1955. The four 1049G aircraft will be operated on overseas runs exclusively and are to be Seattle based aircraft.

Agent John Bowen has been actively working with Alaska Airlines on their Arctic operations. He made a survey trip with a flight to Sparrevohn from Anchorage to establish an IFR/Off Airways procedure to expedite delivery of supplies, principally oil, to this radar base. Additional flights and checks were conducted in connection with their contract trips to other Far North radar sites. (Continued on next page)

Agent Wertman and Mr. B. R. Gaines of Aircraft Engineering attended a meeting of manufacturers' representatives at Norton Air Force Base, San Bernardino, California, on March 16-17. This conference medium is a new Air Force approach to better liaison between the Air Force and manufacturers of Air Force aircraft and equipment and to acquaint the manufacturers with the Air Force operational and maintenance problems. The meeting was most productive for the Air Force and manufacturers, and gave the CAA representatives a direct view of some of the jet communications and navigation problems as they now exist. Future meetings on radar, electronics test equipment, and similar subjects will be most informative to CAA representation.

Pacific Northern Airlines' three Lockheed L-649's have arrived in Seattle. Pilot, flight engineer and mechanic training is in progress and will continue at an accelerated pace throughout April. It is planned to conduct a survey flight on April 15 from Seattle to Juneau, Cordova, Yakutat and Anchorage, and also to Kodiak and King Salmon. The assigned maintenance agent will be aboard this flight. Tentative plans are to inaugurate non-stop service from Seattle to Anchorage starting April 18, operating one round trip per day.

Pacific Southwest Airlines has completed arrangements to obtain two Douglas DC-4 aircraft. These will be made available to Pacific Southwest as soon as Capital Airlines receive their first two Turbo Viscounts. Pacific Southwest will dispose of two DC-3's, retaining two. They will keep their present four DC-3's until the two DC-4's arrive and pilot training is completed. They will then operate two DC-3's and two DC-4's.

Captain Leo Leonard, Pacific Southwest Airlines' Chief Pilot, attended the C07 course at the Aeronautical Training Center, Oklahoma City. A letter of appreciation was received from Mr. Leonard in which he stated that the course was of great value to him in improving his pilot training program.

Great Lakes Airlines and Currey Air Transport, Ltd., have terminated their New York to Miami trip and have put their full effort to the Chicago-Detroit-Miami run. Business has continued to increase each week. Two co-pilots are to take type rating flight tests in the near future for upgrading to reserve captain.

Slick Airways, Inc., AMC contract operation to Alaska and Greenland has commenced with one round trip to Alaska completed April 5. The Airwork, Ltd., North Atlantic contract operation has also completed one round trip. Domestic cargo operations are hauling above normal loads and Slick is completing negotiations for seven additional C-46 aircraft from the Air Force. Additional changes in top management personnel are expected within the next 30 days.

California Air Charter, Inc., Blatz Air Lines, Inc., Viking Airlines and Standard Airways are continuing in CAM operations. Volume of business is still below average, especially in DC-3 equipment. Mr. Shields B. Craft, General Manager of Standard Airways, advises that aircraft daily utilization for their DC-3 runs only a fraction over four hours. An en route inspection of a Viking Air Line CAM flight was conducted during the first part of March from Oakland to Newark, New Jersey, via Omaha, Nebraska. However, DC-3 aircraft utilization is expected to increase during the next few weeks or months due to a number of recently issued overseas contracts which have withdrawn a number of DC-4 aircraft from the domestic CAM market.

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Resort Airlines has completed the transfer of their maintenance functions from Oklahoma City to the Oakland Municipal Airport and are in the process of transferring their radio department to the same location. All of their major maintenance on both their C-54 and C-46 aircraft will be accomplished by California Eastern Airways at their Oakland base.

California Eastern Airways was awarded seven military contract flights to Manila and six to Tokyo during the month of March. Approximately five flights to Manila were accomplished during this period.

Southwest Airways inaugurated daily flight service on their recently awarded route between San Francisco, San Jose, Stockton and Sacramento on March 7, 1955. This route was recently awarded to Southwest Airways by the CAB as a portion of the San Francisco-Reno authorization. Southwest Airways hopes to get the balance of the route to Reno in the very near future. Stockton was the only new city added to Southwest's operation and will be served by four flights daily. Concurrent with the inauguration of service on the Stockton route, Southwest Airways added Burbank to their list of stops on their Los Angeles-San Francisco route.

High atop Santa Inez Mountain, Southwest Airways installed the DEMON. The Delayed Message Operational Network Radio Station, warmly referred to as the DEMON, consists of a typical VHF receiver and transmitter plus an ingenious tape recorder. When a radio message is transmitted within hearing range of the DEMON, the receiver on the hilltop hears the message and records it on the tape recorder. Upon completion of the message, the tape recorder immediately plays back the very same message through the transmitter on the hilltop. By this means, Santa Barbara Station can send a message which can be read by aircraft as far north as King City and as far south as Los Angeles. In effect, this gives Santa Barbara the same range it would have if it were mounted on the ridge. To avoid confusing the tape recorder, a tone sensitive relay has been installed so that the DEMON will not operate unless the radio message has been preceded by a "beep". This device was developed at Southwest Airways' Radio Shop and is the first of its kind. If its operation proves successful, more will be installed at other points along their route.

For about a year Transocean Airlines has operated a DC-4 equipped with a test installation of brilliant blue-white lights which flash in sequence and present a vivid illusion of motion in the direction of flight. Xenon-filled photo-type lights are mounted in parallel positions along the top and bottom of the fuselage, three positions above and three below. The sequence and rapidity of flash, from aft forward, create the directional effect. Reports from those who have viewed the Transocean plane in flight indicate that the range of visibility extends upwards of 50 miles. United Air Lines has installed these lights on one of their DC-6's for test and evaluation by their engineering personnel.

United Air Lines has adopted use of a two-way "walkie-talkie" communication system to speed handling of passengers, mail, baggage and cargo at San Francisco International Airport. Ramp agents carry an eight pound Minipak radio to keep them in constant touch with a central station coordinator in boarding last minute passengers or loading air freight to fill space left by "no shows". United leases the equipment from Radio Specialties Company of Portland, Oregon, and it is maintained by the Pacific Telephone & Telegraph Company. Sets operate on the 42.98 mc frequency band and have a line-of-sight range of about ten miles. (Continued on next page)

## GENERAL SAFETY DIVISION

The high level of activity in the field of general aviation which has been reported for the past several months continues to make itself evident. Several offices report marked increases in aircraft sales and student pilot activities over previous months.

As a result of the increase in uranium prospecting by air, accidents involving these aircraft are also on the increase. In fact, one district office reports that at least one aircraft accident per week occurs due to the hazardous nature of this type of flying.

Several district offices report that many agricultural operators are busy preparing their aerial applicator equipment for the coming season. Most operators in the Boise area are anticipating a heavy season, with one considering the possibility of using a C-82 for forest spraying and other large area projects. Agents of the Portland ASDO have been working closely with the U. S. Forest Service and the Oregon State Forest Service regarding pilot and aircraft requirements on the coming Spruce Budworm Projects in eastern Oregon.

A flight clinic planned by the Flying Farmers of Colorado, who co-sponsored the program with the Rocky Mountain Business Aircraft Association, took place at Denver, April 16, 1955.

Spokane District Office also reports a clinic planned for April 23-24, and have as a sponsor for this program the Aviation Committee of the Spokane Chamber of Commerce.

The Sportsman Pilots of Oregon are sponsoring a flight clinic scheduled for May 15, according to the Portland ASDO.

Los Angeles, Ontario, Santa Fe, Seattle, Billings, Phoenix, and Oxnard all have firm dates and are making final preparations for their clinics which will be held in the immediate future. In conjunction with these meetings, many district offices are holding safety meetings, which, according to current reports, have been well received.

Many new clubs are entering into the competition for the Hughes Trophy for the National Safety Program for Flying Clubs. Washington, California, and Utah are definitely on record as offering a "Governor's Trophy" to the flying club with the highest score under the program in their respective states. It is anticipated that several other states in this region will also offer similar awards.

Agent Demaree of our Los Angeles District Office has spent considerable time on inspection of the Learstar, modified Lockheed Lodestar, at the Lear Company's Santa Monica repair station. This project, which involves extensive modification of at least ten or twelve aircraft for executive use, promises to be a long time project. It was first expected to be a type certification project for a new model aircraft, but has turned out to be an engineering approved modification that falls under the jurisdiction of General Maintenance Branch. Deviations in the individual aircraft require considerable time and inspection by our agents.

The San Diego office reports several gyro-gliders have been purchased from the company manufacturing the kits for home-building, and are being built in their district.

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Our Helena ASDO reports that the Johnson Flying Service, Missoula, Montana has sent a crew of mechanics with overhauled engines and other required parts to Pittsburgh to repair and salvage their DC-3 that was ditched in the river near Pittsburgh last December. They report that exporting of aircraft to Canada through their district is continuing to be heavy. This activity has been picking up since removal of Canadian import duties on aircraft approximately three years ago, but the anticipated renewal of this duty will no doubt cut these exports materially. Three operators in the district are nearly ready to apply for approval of their radio repair facilities.

Denver reports that glider activities are picking up, with a good season anticipated. They also report a new agricultural aircraft of radical design is being built in their district, but it is too early to furnish details on this project.

Yakima reports one operator is preparing for an Airframe and Powerplant repair station approval and another is preparing for approval with a Helicopter Airframe rating.

Agents Dewey and Kauffman of the Fresno District Office participated in the Reedley College Senior Career Day. They were assigned a room where graduating students interested in aeronautical maintenance trades were assembled. They gave a lecture to these students, presenting an outline of the conditions and demands for maintenance personnel in the industry, showing the opportunities for employment of graduates. The information used in their lecture was based on data given to them by the personnel departments of North American Aviation and United Air Lines in the Fresno area.

Twelve de Havilland aircraft, formerly operated by the Chilean National Airlines, have been brought to the Van Nuys district where they are awaiting certification. Since these aircraft do not conform to the requirements for certification in the United States, considerable coordination between the Region and Washington with the District Office has been required. The Regional Office has now obtained a full set of de Havilland modification data to assist in this project which is expected to be very extensive. The Van Nuys office reports that 22 of their 31 DAMI's were reappointed; the remainder being cancelled.

The Long Beach office indicates considerable interest shown in a tricycle landing gear installation for Cessna 170 aircraft made by Met-Co-Aire Company of Fullerton, California. When approval is obtained on this installation they anticipate offering it in kit form to sell at approximately \$600.00

It was interesting to note that awards for the top ten sales agencies in a world-wide Cessna survey indicated that three of the agencies were located in this region, and that California has led all other states in the sales of new Cessnas each year since 1951.

Reports on renewal of DAMI certificates by the various districts indicate that some inactive designees have been dropped, as well as those employed by approved repair stations with Airframe ratings. It is expected, when the complete reports are received in the designation program, that the number will be greatly reduced from what it was prior to this time. This has afforded a real opportunity to screen the designees and eliminate those not active and producing, or otherwise not up to standard.

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## AIRCRAFT ENGINEERING DIVISION

Flight tests on the Aircraft Engineering Foundation's C-46 modification program have been terminated and the data obtained are being reduced. The test airplane is making a demonstration tour. Final acceptability of the oil temperature has not been demonstrated; however, most of the other tests have been completed. It is understood that the data will not be reduced to the point where Region 4 can make any recommendation for some time. This office has been advised that a complete new technical data file will be submitted on this project.

Flight tests on the Baumann Model B-290 have begun with CAA participation although a TIA has not yet been issued. It is expected that the TIA will be issued in the immediate future.

During flight tests on the Convair 340 to determine the effect of a new augments (which is part of the Convair speed-up and noise reduction program), it was found that Pratt & Whitney's "Transport Type" carburetor setting may result in excessively rich mixtures in automatic rich which causes an appreciable loss in power. This matter is being further investigated and corrective action may be required since emergency procedures usually call for auto rich settings on operational engines, and performance data are based on the assumption that rated power is available under such conditions.

The flight test program on the Douglas Model DC-7B is continuing. The brake and landing tests have been completed; however, the high speed dive, miscellaneous saddle tank tests, and other flight tests have not yet been done. It is expected that a type inspection authorization may be issued on this project within the next month.

Flight tests on the Fletcher Model FU-24 have proceeded to the point where certain unsatisfactory features have been found, including engine cooling (both head and oil temperatures), directional lateral and longitudinal stability and stall warning. A Discontinuance Report has been issued to cover some of these items; however, corrective actions are under way and little delay in the flight test program is anticipated.

The 150-hour official test stand run on the Herrmann X-375 cam type engine was completed on March 21st. The tear-down inspection was witnessed by both Region 4 and Washington personnel. Magnaflux and Zyglo inspections to date have not revealed any major difficulties. Upon completion of the inspections, a final report is scheduled to be forwarded to Washington for further action.

Flight tests have been resumed on the Hiller HJ-1 Ram-Jet helicopter. Engine re-light and rotor speed governing control have been significantly improved. The revised altitude compensator has not yet been investigated. Power-off auto-rotation landings are being evaluated and it appears that this may be a marginal flight maneuver. The rate of descent necessary to keep rotor speed up with power off is quite high because of the engine drag. Also, because of a high center of gravity and short coupled landing skids, it is necessary to land with practically zero forward speed at the instant of impact. These features combine to create numerous problems for the pilot. One characteristic which tends to compensate is the increased energy stored in the rotor which may be used by the pilot during a landing. Overspeed whirl tests were conducted on the Hiller Ram-Jet engine and rotor during which the engine was completely destroyed and the test stand was severely damaged. Disintegration of the engine occurred at 710 rpm, however, CAA witnesses recommend acceptance of the engine test on the basis of the results obtained prior to failure.

(Continued on next page)

Applications for Type Certificate for Lockheed Models 1649A-98 and 1649B-98/02 have been received. Preliminary discussions between Lockheed representatives and this office have been held relative to some of the problems involved with these models. Both airplanes will have a thin, high aspect ratio wing which was originally intended for use in the Model 1049. Both aircraft will have higher powered Wright Compound EA-2 engines installed, together with other novel design features.

An Application for Type Certificate has been received for the Morrisey "Nifty" 2000 tandem trainer type aircraft.

An Application for Type Certificate has been received from the Transland Company covering their Model AG-2 agricultural aircraft designed to comply with CAR 3. This aircraft will be patterned after the original AG-1 sponsored by CAA.

Vest Aircraft has transferred their Type Certificate for Ercoupe Models 415C, D, E, and G to the Forney Manufacturing Company in Fort Collins, Colorado. It is understood this Company plans to put these model aircraft in production together with Luscombe Model 8 aircraft in the near future.

#### AIRPORTS DIVISION

Mr. Herbert H. Howell, Director, Washington Office of Airports, Mr. Marriott and Mr. Winger attended the Airport Operators Council at Seattle, Washington. Mr. M. W. Hemphill, Deputy Director, Washington Office of Airports, Mr. Marriott, and Mr. Winger also attended the 28th annual meeting of the American Association of Airport Executives at Tucson, Arizona.

Allocations totaling approximately \$360,000 were issued during the month of April to Elko, Nevada; San Jose, Fullerton, Modesto, Riverside, and Ukiah, California.

Since the March report, Project Applications were received from Ukiah, California, and Yakima, Washington. This brings the total applications received to date in the Regional Office to 28. Grant Offers were issued during the month to Oakland and San Diego, California; Denver, Colorado; Silver City-Grant County, New Mexico; Medford, Pendleton, and Portland, Oregon; Salt Lake City, Utah; Yakima, Washington and Cheyenne, Wyoming, raising the total of Offers issued to 23.

Notices of Acceptance of Grant Offers were received from Phoenix, Arizona; Los Angeles International and San Fernando Valley Airports, California; Great Falls, Montana; Hobbs, New Mexico; Salt Lake City, Utah; Medford and Pendleton, Oregon; and Cheyenne, Wyoming, bringing the total of Grant Offers accepted to 17.

#### FACILITIES DIVISION

##### Flight Inspection Branch

Georges Novgorodsky, Chief of Research, Colony of the Belgian Congo spent two days with Flight Inspection in connection with VOR site testing and mountain top operation. He displayed considerable interest in the operation of our VORs looking toward the installation of this type of aid in the Belgian Congo, where airway and let-down aids consist wholly of LF HOMER facilities.

##### Establishment Branch

Negotiations were started with the City of Sacramento toward obtaining space for the proposed communications station in a separate building on the north-easterly side of the main hangar.

(Continued on next page)

Charlie Kohli made a trip through the wilds of Nevada for selecting general area locations for proposed VOR's. Contacts with CAA personnel were at a minimum.

Fred Wild visited stations at Great Falls, Missoula and Spokane on a trip in connection with VOR locations in northern Montana and Washington.

Arrangements with the Air Force for utilizing the tower structure at Klamath Falls are being made.

Considerable time has been spent in detailed review leading toward reprogramming the 1956 EANF appropriation and preparing a preliminary 1957 EANF Budget, together with our long-range EANF crystal ball gazing. This is now in final form and ready for submission to the Regional Facilities Clearance Committee.

The 1957 EANF Budget call has been received and preliminary data is now being assembled for its preparation.

Jim Cheatham and Carl Duncan have the Winslow INSAC dual console installation well under way. They have just been joined by Bill Folcer, who replaces Bob Stramp for about three weeks. Stramp is on leave to go back to school for a year.

Fred McCauley and Sam Rosenfeld completed Roswell INSAC modernization and have started modernization work at Truth or Consequences INSAC. Sam was called in to pick up a new truck. We were most fortunate to have him on hand to send to Ely, Nevada, when the weather bureau requested a last minute relocation of teletypewriter equipment at their Ely weather station. Fred will wonder "what happened" to Sammy.

Ed Pardee and George Martin are busy modernizing Las Vegas, Nevada, combined station/tower. They have had to shift almost all the equipment around without any interruptions to services.

Riley Harris, Arnold Hatch and Dave Hegland expect to complete the establishment of Van Nuys ATC Tower. Bill Folcer was removed from this crew temporarily to help out at Winslow INSAC. Harris and his crew will begin the installation of new electronic equipment in the Los Angeles ARTC Center following the Van Nuys job.

Jim Grenshaw is quieting down the Phoenix tower by installing acoustical ceiling and floor carpeting.

Frank Dettmer is assembling material preparatory to building a Delta Frame antenna support at Saddle Peak.

Norm Seewald made another safari to the intermediate landing field in Death Valley at Furnace Creek and was again driven back by high winds and cold weather. Before leaving for the desert, Norm completed the plans and specifications for the Carlsbad INSAC job.

Work on the antenna structure at Burley, Idaho was delayed by late Spring storms, but the job was recently completed and Fred Yandell is now at Baker, Oregon, modifying another H-frame antenna support to a delta structure.

Tom Tarpo has completed painting the VOR building and roofing the counterpoise at Lucin, Utah. Snow blocked the access road to the Elko VOR and has delayed construction of a wood fence on the mountain top. (Continued on next page)

The San Francisco OFACS installation has been making good progress and is now about 70% complete. Most of the VHF Link, Tone Channel, and Teletype Circuits have been checked out, and the crew is continuing with the seemingly endless wiring of the system (about 25,000 terminal board terminations plus the equipment terminations.) The crew, at last count, consisted of Allee, Darel and Richard Preator, Lopez, Scribner, Carrington, Shukal, Bracken, Harvey and Jobe, with John Elwood enroute to San Francisco. Several members of this crew will be assigned soon to the Oakland Dual Console, and OAK-SFO INSAC consolidation which, like the OFACS relocation, has to be completed by the first of July.

The drawings for the Oakland/San Francisco INSAC consolidation are nearing completion and work orders for this project will be issued shortly. Paul Allee will be the Supervisor of the project with some of his present crew performing the physical chores. There is going to be quite a group of busy little beavers in the OAK-SFO area about June 15.

The plans for the combined modernization of the Seattle-Tacoma facilities is progressing nicely. Most of the drawings have either been completed or are in the process. Project Engineer Art Entin is getting balder every day from snatching handfuls of hair while trying to worm his way through the old SEA-TAC drawings.

Jim Cole and Darel Hafner finally have gotten away from Portland long enough to dismantle INSACS at Rome and Ontario, Oregon.

Engineer Wes Pearson conducted preliminary VOR site investigations in the Farmington and Kayenta areas of the proposed Los Angeles-Chicago Victor Airway. Wes reports the Kayenta area may make good uranium hunting but was never intended for VORs.

Fred Lopes has just completed the field survey of the proposed VOR site near Mission Bay for the relocation of the San Diego VOR. Site leases have been submitted to the City for their consideration. Fred's next assignment is in the Denver area where he is picking up a car and at the same time obtaining data for an access road into the proposed Kiowa VOR site.

Bill Beekman has completed the engineering survey for the Whidbey Island Naval Air Station VOR facility. Bill is presently conducting a preliminary survey for a second possible Fircrest-Tacoma VOR site. He will next obtain bearing data at the Walla Walla, Ellensburg and Ephrata VORs.

Bids have been received on relocation of the Roswell VOR facility. Contract award has been made to the Lemons Construction Company, Amarillo, Texas. Marion Duncan has been assigned to supervise construction which started April 26th. Marion is now supervising the construction of a new power line and new building at the Julian MHW facility.

V. O. Vick completed construction of the Los Angeles VOR on April 1st and on the 4th began supervision of construction on the Oceanside VOR. T.A. Kvale has the construction contract for this facility. Vick will take over supervision of the Julian MHW construction when Marion Duncan proceeds to Roswell.

Tom Tarpo has completed the repainting and re-roofing of the Lucin VOR building so that it will be ready for the electronic equipment which is scheduled to arrive shortly after May 2nd.

(Continued on next page)

Charles Dickow, Maynard Hegland and Erwin Clark completed testing sites in the San Diego area. The VOR test rig was returned to the R.O. and thoroughly overhauled prior to starting on the next series of VOR site tests. On April 21st the VOR test van departed for Valle, Arizona in the Grand Canyon area.

Poor weather continues to hamper flight checking and commissioning of the Olympia VOR. Paul Watkins and Boyd Preece report most of the flight check completed and are optimistic over early commissioning of this facility. Paul and Boyd will go next to Lucin and start electronic installation of that long postponed facility.

Emmett Whitney, Bob Crookshank and Victor Beacon say they will have the Los Angeles VOR ready for commissioning by the middle of May. They will, that is, if another wind-storm doesn't blow their sand dune counterpoise completely out of the State of California. We wish to welcome Vic Beacken as the newest member of our electronic installation force. Vic Beacken has had a wealth of electronic experience with the Navy and U.S. Air Force before coming to us.

Glenn Kassing and Al Calloway took three days off from their DME work to remove the Roswell VOR electronic equipment. Wish this equipment could be reinstalled as rapidly. Glenn and Al have completed DME installations at Otto and Hobbs. Their next DME installation will be Albuquerque.

Mike Domitrovich and Glenn Shoop are winding up a long string of DME installations with the final tune-up of the Elko facility. While at Elko they also converted the VORW to a BVOR by completing the control line installation.

Conelrad and DME installations at Coalinga have been completed this month by Chuck Daggy and John Williams. They are now installing DME and Conelrad at Modesto. Chuck and John will next install Conelrad at Pt. Reyes VORW and Williams SRA.

Conversion of Shelton MRLWZ to an HW-LFM was completed by Paul Wakings and Boyd Preece.

Plans have been completed for installing a standard control system at the Stockton MRL.

Contractor has been given notice to proceed with Portland, Oregon PAR April 5, 1955. Gene Newman is supervising the work.

Proposal for Portland, Oregon, IFR Room has been issued with opening date set for May 3, 1955.

Modification of Los Angeles ATCT floor has been completed; Frank Dettmer, Construction Supervisor. Preparation of plans for the Los Angeles Radar Blackout Enclosure are underway.

The Salt Lake City IIS relocation has not as yet received an acceptance. Difficulty is being experienced with glide slope path variations, and tests are being made by Wes Martyn and Frank Beauchamp to determine the cause of these variations.

Doug Brown and Bill Pedri have proceeded to Cheyenne, Wyoming, to lay the ground work for the glide slope survey as well as bonding conduit and duct in the Cheyenne tower.

(Continued on next page)

The proposal for paving the Daggett, California, IIF is near completion. Civil Engineer Dave Domaskin will prepare the site surveys.

Plans are underway for dismantling the Billings, Montana, glide path and approach light system, preparatory to the extension of the Billings runway.

The construction phase of the Long Beach ASR-3 will be completed the week of April 25. Further engineering is underway for the preparation of the control tower cab.

John Eagen of Establishment and George Mickelson of Maintenance are presently assisting Washington Engineer Lou Rudolph with the Acceptance Inspection of the Denver ASR-3. The 72-hour check on the "A" channel commenced on May 18, 1955. Included in the 72-hour check of channel "A" will be a flight check, anticipated for April 27.

The Bendix installation crew at Los Angeles should complete their phase of work about May 1. The test crew in Denver will report to Los Angeles upon completion of equipment installation, regardless of the status of the Denver ASR-3.

Relocation of the Burbank ASR-2 equipment room was completed as of April 7, 1955. Minor modifications of the antenna tower and transmitter building have also been completed. Harry Mellen, Construction Supervisor officiated.

Bob Faul, having completed video cable splicing at Los Angeles, Burbank and Long Beach, is enroute to Seattle via San Francisco to commence the installation of the ASR-2 Repeater.

Plans for the Salt Lake City, Utah HIALL joint CAA/National Guard Project are 90% complete, electrical details being the only portion left for completion. Preliminary layout and cost estimate has been transferred to the Utah National Guard.

Plans are underway for the removal of the ILS localizer building at the Seattle/Tacoma Airport to permit extension of the instrument runway. Relocation of the localizer system is expected by the month of October.

#### Progress on UHF Program:

A contract has been awarded to Technical Services Corp. of Philadelphia, Pennsylvania for services of engineers and technicians. An initial order was placed for twenty men, who are now engaged in the work. Orion Betz has two field engineers and a technician at Yuma, Arizona, for indoctrination and training and will follow with Gila Bend, Arizona. Ed Alfonso has two field engineers at Billingham for the same routine to be followed by Hoquiam, Washington. Wayne Brown has started the Portland, Oregon, remote site with two contract technicians. Additional will be added later. O.O. MacIntosh took over two technicians to finish Fresno, California, and will then start Los Angeles remote site. A CAA crew; Phil Nicoletti, with Elwood Marsden and Pat McCarty started Spokane, Washington, tower.

John Rathjen with the second CAA crew of Joe Covington, Murry Asilowitz and Carl Weidert completed Long Beach, California, tower and INSAC and are now on Van Nuys, California tower. Joe Barnes will join the Spokane job when Fresno is complete and Carl Dickenson will join up at Van Nuys. Installations were completed at Oakland, California tower and Seattle Boeing tower during the month. Standby equipment was installed at Palmdale, California tower and INSAC, San Diego, San Francisco and Portland towers, which completes installations at these locations.

(Continued on next page)

In the construction area Jim Pace completed Grand Junction, Colorado and is now working on Eagle, Colorado. Robert Dahms will start work on Trinidad, Colorado to be followed by La Junta, Colorado. Clyde Lee is finishing up both Douglas, Arizona and Columbus, New Mexico and will then take over some regional office work. Frank Ganin is on annual leave for the month. Dave Evans started work on Spokane, Washington tower and INSAC.

Preliminary surveys were made by Bob Chambers and Bob Nicholls at Paso Robles, Salinas and Stockton, California. John Reed and Bob Frehse did preliminary surveys at Otto, Las Vegas, Grants and Zuni, New Mexico; and Winslow and Prescott, Arizona. Next month's surveys include Idaho Falls, Idaho; Helena, Montana; Cutbank, Montana; Malad City, Idaho; and Wyoming in general.

Bob Miller, Electronic Engineer, left us this month for a promotion to the Washington office.

#### Maintenance Branch

The Airways Technical District Supervisors Conference was held April 19 - 22 coincident with Budget preparation for Fiscal Year 1956 and 1957. The conference was highly successful and produced some radical changes in certain of our methods of operation. We are very happy that changes are under way in the present overtime instructions and policies, as we believe that the instructions covered by the new Administrative Order No. 170 will solve a lot of our headaches and will clarify our position to field people.

Some of the evening sessions of the conference produced unusual results, which were highly beneficial to a few of the participants, but which had only educational benefits to other conferees. In general, however, at adjournment time we felt that a great deal had been accomplished and that the Branch can be very well operated insofar as the Districts are concerned, until our next conference early this fall.

Quite a number of the Field locations have experienced unusual conditions during this period. One of the most startling being that experienced at Billings during the period April 2 through April 5. SES Whitely and the crew at Billings were kept very busy during this period by a record snowfall of  $42\frac{1}{2}$  inches, coupled with 25 to 30 mph winds. Needless to say, a great deal of overtime was worked during this period, in keeping official facilities in commission. As the Maintenance group had the only two four-wheel drive vehicles immediately available at the airport area, they were kept very busy hauling essential employees to and from their duty points, clearing snow away from buildings to provide entrance and exit, and getting stalled cars to and from the airport, and in some cases merely out of the way so that some form of business could transpire. With all of the difficulty experienced during this snow storm, we are proud to report that the only outage was on our glide path facility when piles of snow could not be kept moving rapidly enough, and the facility went out of tolerance for a few hours. As an example of the problem which these men had, we are reminded that it took four technicians, one jeep, and one four-wheel drive truck three hours to go from the Billings hangar to the glide path site ( a distance of less than a mile) in order to move snow away from the glide path so that it could resume operation. We understand that this same operation was performed several times, some of them being at night. We certainly commend Mr. Whitely and his crew, as well as Ray Jorenby, the District Supervisor, for their efforts in keeping our facilities in operation.

(Continued on next page)

A Washington office visitor to the Region concluded his itinerary this month when Mr. John Lewis had his Regional office discussion with our technical personnel on April 22. Mr. Lewis has been in the Region for several months and has inspected Airways facilities throughout Colorado, New Mexico, Arizona, and southern California. We are happy to report that Mr. Lewis has given us a relatively good inspection report, although we have the usual number of minor items requiring correction.

One of our District Supervisors, Mr. Warren Sharp, together with Frank Goodlive, John Mackinder, Richard Byram, Donald Kelsey, Lorin Demerritt, Leland Hahn, Nicholas Schell, and Joe Marquez, are attending various training classes at Oklahoma City. All reports received up to this date indicate that, while they are not having an easy time, they are getting a great deal of information out of the courses and will complete them satisfactorily.

During this month we have graduated twelve additional technicians from our teletype training school. These men are William Bauer, George Drewes, William Harrison, Allen Pecor, Joe Spivey, Merton Wisner, Russell Kiggins, Harold Horrocks, James Fischer, Byron Deibert, John Forsyth, and Carl McKay. One or two more classes of this teletype school should allow completion of our training program for former AMI personnel and certain other technicians now accomplishing teletype servicing work.

In the last months news letter we reported an accident which occurred to Dave Lewis, our General Mechanic at Bryce Canyon. After being air-lifted to Salt Lake City for a special operation and hospitalization and being transferred to the Los Angeles Veterans Hospital for further medical treatment, we are happy to report that Dave is again at Bryce Canyon, although not yet on duty. He will still have to go through a recuperative period, but we are sure he will be able to return to his normal duties within a short period of time.

Vern Phelps, one of our Supervisory Airways Specialists, is on extended sick leave, after having been relieved of duty while on a field trip in Montana, on doctor's orders. Vern is recuperating at Seattle for a period of unknown duration. Vern has been covering a great deal of ground in his instructional schedule with Electronics and former Airways personnel and certainly deserves to be sick if anyone does. We hope that he is able to return to duty before too long a period.

#### AIRWAYS OPERATIONS DIVISION

A conference of all Region Four ADLOs was held in the regional office April 12-14. Many problems were discussed and agreements on solutions were reached as indicated in the Minutes supplied all concerned.

Dick Fischer, Senior Controller Los Angeles Tower, has been promoted to Chief Controller McChord RAPCON. Resulting vacancy will be filled by transfer of Robert Grainer, Technical Services and Planning Branch, Region V. This will involve Grainer's demotion from GS-12 to GS-11.

Leo Hummer, Chief San Diego Tower, and personnel of the Los Angeles Center, have studied Navy's request for deletion of air space control in the North Island area together with request for simultaneous operation at North Island and Lindbergh. Copies of the recommendations designed to provide at least partial solution of the San Diego terminal area problem have been delivered to LA-380, LA-330 and LA-227 for review and discussion.

(Continued on next page)

Operations Supervisor Stephens continues attempts to resolve the Oxnard AFB/Oxnard, Ventura County Airport traffic conflict problems. Oxnard Chamber of Commerce and political groups have recently also become interested which further accentuates the problem. Progress to date, however, promises a solution in the near future which will be reasonably satisfactory to all concerned.

Major Lynch, AACS, Orlando, Florida, paid us a visit recently to review our training program with regard to AACS personnel who are assigned to duty at our towers and centers. It appears that they have very few problems and, in general, training is proceeding as desired. Most of the AACS fellows are young and full of ambition and doing a reasonably good job at our facilities.

Representatives of the Ninth Annual Women's Transcontinental Air Race (Powder Puff Derby) recently communicated with this Division regarding the forthcoming race between Long Beach, California and Massachusetts. They wish CAA to provide special handling for flight plan and position report handling, which we have done as in previous years.

During the recent snow storm AOD personnel at Billings and Sheridan were unable to travel, at least part of the time, therefore some worked overtime because of being marooned at their post of duty. At Billings, the Weather Bureau estimates that 25 million gallons of water was contained in the snow on the ground at the airport during the four day period. SES Whiteley did a good job of operating the CAA Sno-Go which permitted some communication between CAA and facilities concerned.

Controller Grover Austad of the Salt Lake City Center has been given an award as one of the ten outstanding conservation men in the United States. His plaque reads "securing passage of new phases of game protection and anti-pollution measures in helping to further conservation activities of the federation." Mr. Grover is past secretary-treasurer of the Utah Wildlife Federation.

C. Church, Operations Supervisor, and all Region Four ARTC Chief Controllers met with Washington Office representatives and chiefs from other centers for a conference at Kansas City beginning April 18. We have not yet received a report.

The Air Force is proceeding with the establishment of RAPCON at Ellsworth AFB, Rapid City, S.D. Target date for commissioning is June 30, 1955. Region Four is not concerned with staffing; however, it lies within the Denver ARTC control area and will therefore require Region Four participation in solution of operations problems.

Facilities and Operations Divisions personnel, including Butler and Mathews of San Francisco OFACS met in the regional office April 18 to discuss problems with regard to installation of equipment at OFACS. The program is proceeding generally on schedule and one modification requested has been concurred in. It should not delay commissioning date to any appreciable degree. The commissioning date is still July 1, 1955.

Nine relatively complex radio frequency assignment problems were resolved.

Information has been received from the Washington Office that Service "B" system will go to 100 words per minute January 2, 1956. (Continued on next page)

W-380 has advised us, due to depletion of funds, to withhold all tele-communications requests chargeable to S&E 1955, except projects of urgent nature.

Mr. DeAndrea has been assigned to thirty days' jury duty effective April 5. He is unsuccessfully attempting to keep up the landline work during periods excused from duty. Emil Olson, Chief Missoula Station, will be in the regional office for two weeks to assist in this work.

Changes in Service "B" improvement program relay points were requested as follows: Billings, Montana in lieu of Sheridan, Wyoming; and Baker, Oregon in lieu of Burley, Idaho.

Mr. A. L. Barnabei of W-312 visited with Technical Services Branch personnel during the week of April 4 to discuss frequency usage and interference problems. Several discussions were attended jointly of I.R.E. and RTCA Main Section. Meetings held during the week of April 5 at I.A.S. Building. Mr. Barnabei later visited with OFACS Chief, Mr. E. C. Butler, at San Francisco enroute to Washington.

Recommendations were submitted to LA-10 regarding airway designations based upon the Olympia and the Williams VORs.

A survey of radar tower lighting equipment was completed and forwarded to Washington.

A study of the Seattle-Tacoma ILS installation has been made and comments and recommendations requested from the industry. To date, no comments have been received.

A traffic survey at San Jose, California was made. The count is considerably above minimum criteria requirements.

Action was taken to finalize continued 8 hour per day operation of the reimbursable tower at Pocatello during 1956.

Action was taken to obtain tower traffic activity information from Hobbs and Sante Fe, New Mexico airport managers.

Action started to obtain carpeting in the Las Vegas tower modernization to reduce noise level.

A quarterly report to Washington was prepared regarding potential CAA towers for the region.

The Air Defense Procedures Briefing Team, of which ADLO Simonson is a member, delivered lectures at the following locations on dates indicated:

March 28 and 29 - Monterey NAS  
March 31 - Mathew AFB  
April 6 - 6th Army, San Francisco

At the request of Mr. Pereira, Dispatch Manager, American Airlines, ADLO Simonson delivered a talk to their spring Crewmen's meeting at San Francisco on March 30. Subjects covered consisted of Security Control, SCATER Plan, ADC Radar Storm Warning Service, and future plans concerning ADIZs.

\* \* \* \* \*



# QUESTION BOX ?



Q. A person works for the Federal service for 5 years for which Social Security deductions are made from the salary. He later is converted under the Civil Service Retirement Act. This person works until age 65. Is he eligible for both Social Security benefits and Civil Service retirement at the same time?

A. Yes, if otherwise eligible for Social Security benefits at age 65. Also, the same 5 years during which Social Security deductions were made would be creditable years under the Retirement Act.

Q. What is the status of the new classification Standards for Airways Operations Specialists?

A. The last word we had was that they were held up because of disagreement between the Agency and the Civil Service Commission as to the use of workload data to determine the grade levels at facilities of higher activity. CAA contends that workload data is the most valid yardstick. The Commission doesn't agree but hasn't suggested a substitute.

Q. How about the Classification Standards for Electronic Specialists?

A. Here again there is disagreement on two points. First, the Commission is opposing the proposal to use intermediate grade levels of GS-8 and GS-10, and, second they are trying to make the standards more general in their application. This is a reversal of the original understanding our people in Washington had with the Commission. Our proposal was to write simple, definitive standards applicable to the Electronic Technician jobs found in CAA and the Weather Bureau. The Commission wants broad, general standards applicable to any similar type jobs anywhere in the Federal service. How long this will delay issuance of either standard is hard to say at this point.

Q. Why were several of my sites not included in the current fuel oil and white gasoline schedules.

A. For reasons as follows: (1) no satisfactory bids were received or (2) annual requirements at those sites are not sufficiently high to warrant a contract. In any event purchase on the open market is permissible for said sites in accordance with paragraph II, Administrative Order No. 116.

Q. An employee in Grade GS-12 - \$7440 p.a. (3rd step) is demoted to Grade GS-11 - \$6940 p.a. (top step). He had previously served 10 years in GS-11 - two years at the top step. When will he be eligible for a longevity?

A. After three years of continuous service in GS-11. The promotion to GS-12 constituted an equivalent increase and demotion to GS-11 starts a new waiting period.

FIRE EXTINGUISHER RECORDS

All fire extinguishers should have attached a Maintenance Record Form ACA-2026 for carbon tetrachloride and soda acid types, and Form ACA-2026.1 for carbon dioxide types. These forms are available from the Regional Stationery Storeroom. Each periodic inspection, including physical inspection, is to be recorded on the individual extinguisher record including date and initials of employee.

Play it safe! Be sure your extinguishers are inspected periodically and are in good operating condition.

\* \* \* \*

V. P. P. NEWS

On April 22nd, we sent Mrs. Marvin T. Best a check for \$5375.67, for a total of \$7875.67. This was the first time our fund has been paid out since July 15th last year.

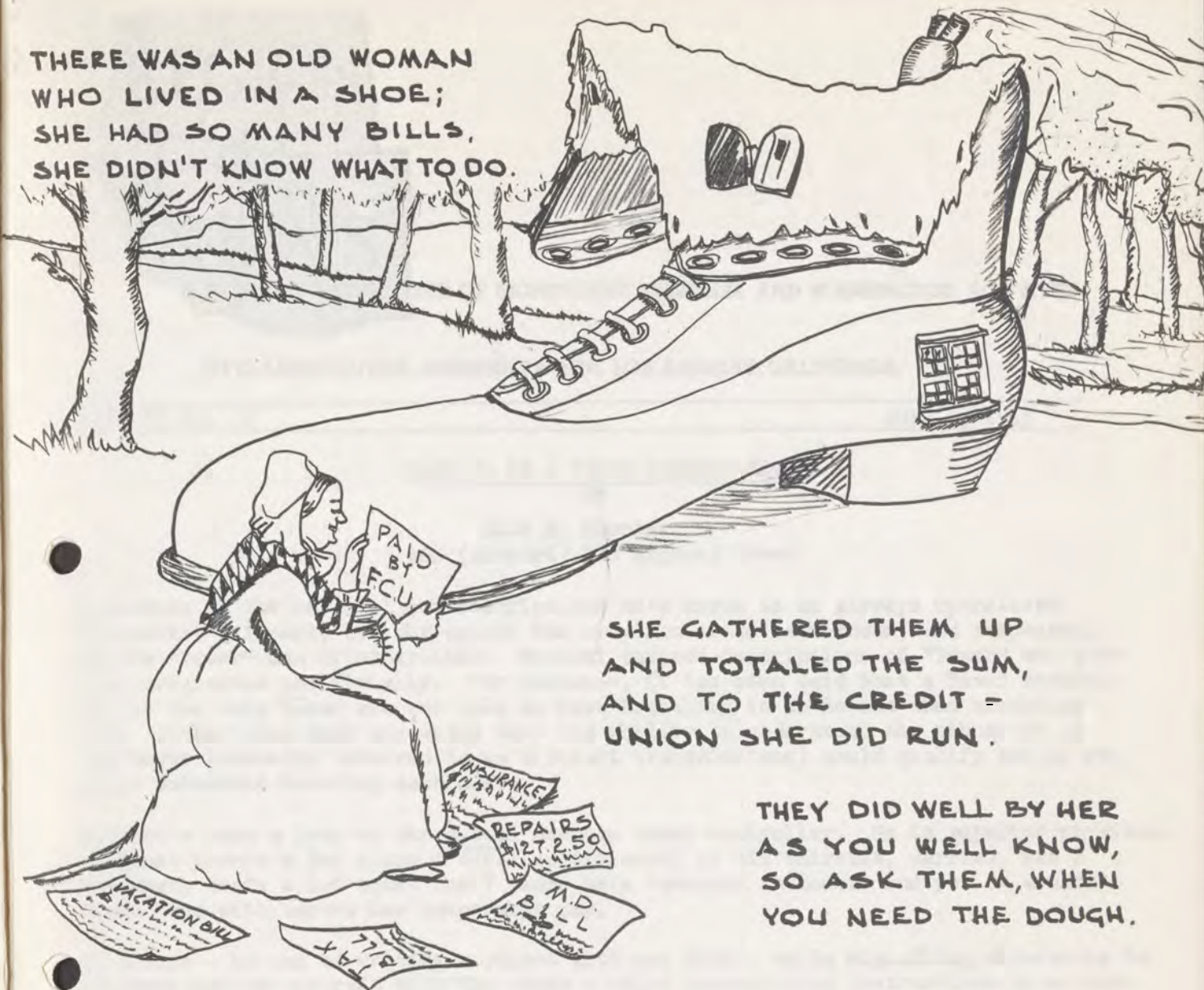
We are about to publish our rules and operating practices all in one place. Reference to V.P.P. carried in Administrative Notices and Region IV News will be included. This should make it easy for Chairmen to keep members informed.

We have arranged with the Personnel Branch to include a sheet describing the V.P.P. with each set of papers issued to new employees. However, since Region IV News has been cut as far as copies furnished is concerned, Chairmen should be alert to propose membership in V.P.P. to new arrivals.

Many repledges have been received and in most cases they were correctly submitted. THANKS! It sure helps.

\* \* \* \*

THERE WAS AN OLD WOMAN  
WHO LIVED IN A SHOE;  
SHE HAD SO MANY BILLS,  
SHE DIDN'T KNOW WHAT TO DO.



SHE GATHERED THEM UP  
AND TOTALED THE SUM,  
AND TO THE CREDIT -  
UNION SHE DID RUN.

THEY DID WELL BY HER  
AS YOU WELL KNOW,  
SO ASK THEM, WHEN  
YOU NEED THE DOUGH.

WHY NOT JOIN YOUR CREDIT UNION NOW

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\_\_\_\_\_ Yes, I desire to become a member of the Credit Union. Please send me membership signature card and additional information.

\_\_\_\_\_ Also, I wish to apply for a loan of \$ \_\_\_\_\_ to be repaid in \_\_\_\_\_ monthly payments.

Name \_\_\_\_\_

Address \_\_\_\_\_

Note: Loans up to \$400.00 may be granted on signature alone if employed by CAA 3 years, or more. Higher loans are available provided adequate collateral is furnished, such as automobile, co-signers, etc.