



### OMNIVOICE

Volume III

Number 1

# PUBLISHED MONTHLY BY THE REGIONAL PUBLIC AFFAIRS OFFICE FOR THE PERSONNEL OF THE FEDERAL AVIATION AGENCY REGION IV

WALTER P. PLETT - Regional Manager

Editor . . . . . . . Gene Kropf

Assistant Editor . . . Carole Hathaway

Art Director . . . . . Merrilyn Grix

# DIVISION REPRESENTATIVES

Roy McElroy - - - - - Air Traffic Management Miriam Maiten - - - - Facilities & Materiel

Bernice Seat - - - - - Flight Standards (Engineering & Manufacturing)

Roy Outcen ----- Flight Standards (Maintenance) Lee Lightfoot ---- Flight Standards (Operations)

Glyndon Riley - - - - Personnel

Regional Office Duplicating Section — Printing & Assèmbling

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# ON THE COVER

As our front cover indicates, January is a big month in Washington. Big plans are underway for the inauguration ceremonies that will take place in front of our Nation's Capitol as the thirty-fifth President of the United States prepares to start his tenure of office.

As in the past, many grave national and international problems await solutions and we join with all our fellow Americans in the hope that the New Year will bring new hope and vision to our leaders.

# 1960 A BUSY PROGRESSIVE YEAR FOR FAA

At the close of its second year, the Federal Aviation Agency reports notable progress. The fields of air traffic management, aids-to-navigation, aviation medicine, research and development, all show remarkable advances. During 1960 the critical problem was partially solved. Some 9,560 sq. mi. of formerly restricted airspace became available for civilian use, making a total of 18,000 sq. mi. returned to the public domain since the FAA began operating. The airway structure was reorganized; the world's first computer network for the control of air traffic went into operation and encouraging progress was made toward a semi-automatic national system; 445 major navigational facilities were installed and commissioned --more than one a day; some 4,000 qualified physicians were designated Aviation Medical Examiners; flight following service was initiated for general aviation pilots; the first jetpowered helicopter was certificated; and the Civil Air Regulations changed in the interest of greater safety.

# AIR TRAFFIC MANAGEMENT

Within the continental United States the FAA operates 275,763 miles of airways connecting some 600 communities. The airways, each 10 miles wide, and divided into thousand foot levels from 700 to 24,000 feet, are key elements of the air traffic control system.

The increase in the number of civil jet aircraft (240 turbojets; 352 turboprops at year's end), and conventional aircraft as well, increased the need for new techniques in order to handle the traffic more efficiently. To accomplish this, the basic airway route structure was reorganized into a three-layer system of low, intermediate, and high altitude airways, to become effective early in 1961. The area between 14,500 and 24,000 feet above mean sea level will be reserved for medium and long range flights (propjet and DC-7 aircraft), with the "short hops" (DC-3 and DC-4 and general aviation types) operating at the lower levels, and the pure jets (DC8's, 707's, 880's and military) flying at and above 24,000 feet.

### FLIGHT FOLLOWING SERVICE

On October 15, flight following service for general aviation aircraft was initiated from FAA Flight Service Stations. This innovation gives pilots flying under visual flight rules, in aircraft equipped with two-way radio, service comparable to that furnished the air carriers. Pilots are given a thorough pre-flight weather briefing, and while in flight keep in touch with a succession of stations which have been alerted to watch for them. If they have not checked in within 15 minutes of their designated reporting times, the stations send out a call and if necessary begin a prompt search and rescue operation.

# AIRWAYS MODERNIZATION

The most extensive network of air navigational aids in the world is maintained by FAA's Bureau of Facilities and Materiel for the use of airline, military and general aviation aircraft.

At the end of 1960 there were approximately 9,000 of these. They consisted of 60 types ranging from small location markers to large complex radar systems linked by radio to air traffic control centers hundred of miles away. All operate 24 hours a day, a large portion of them unattended.

(Expenditures for airways aids in 1960 totaled \$150.8 million -- up \$61 million from 1959)

# THE FAA OVERSEAS

The Office of International Coordination extended FAA's and the Nation's world-wide influence in aviation affairs in 1960.

The U.S. short-distance air navigation system VOR/ DME (very high frequency omni-directional radio range, plus distance measuring equipment) was adopted by the International Civil Aviation Organization (ICAO) as the world standard.

FAA/ICA Civil Aviation Assistance Groups were operating in 32 foreign countries. This fact gains special significance because of the adoption of technical aid programs by the USSR and the extension of Soviet aviation assistance to many countries.

The CAAG's, as the Groups are known, are made up of specialists who supervise airport construction, installation of air navigational aids and advise the various governments on safety, legislative and other aeronautical matters.

The CAAGs taught more than 1,200 foreign nationals to operate and maintain the aeronautical facilities in their countries. Under the same joint FAA/ICA program, 394 foreign students were given aviation training in the United States.

### CIVIL AVIATION MEDICINE

Technical advances in the design, construction and performance of modern aircraft presented the FAA with jet-age problems that touched on the health of flight crews and passengers alike. Little had been done in this field since the first regulations were written in 1926, and knowledge relating to the effect of civil flying on the human body was almost nonexistent.

Early in the year, the physical and mental qualifications of airmen and others whose condition affects the safety of flight were reviewed and brought into line with the times. A rule was passed requiring electrocardiographs every 6 months from airline pilots, and another requiring applicants for student and private pilot certificates to take their physical from Aviation Medical Examiners designated by the FAA. Important in this latter connection was an improved application form providing for the medical histories of applicants.

In order to obtain the highest degree of performance on the part of Aviation Medical Examiners in conducting

these examinations, a course in civil aviation medicine was developed, and will be given at selected medical schools throughout the country beginning in 1961. Examiners will be required to attend one such session every three years to maintain their appointments.

Other developments during 1960 were the participation of FAA's medical staff in aircraft accident investigations, and the designation of 24 leading forensic pathologists (doctors who specialize in analyzing death from violence) as consultants in accident investigation.

# ICAO LOOKS AHEAD TO THE SUPERSONIC ERA

The International Civil Aviation Organization believe that it is technically possible to build a Mach 2+ airliner by 1967 if work were started immediately, but that the earliest practical time of world-wide introduction into service would be 1970 because of the need for new ground facilities and services. If it is decided to skip the Mach 2+ stage, and to go straight from the present-day subsonic jets to 100-passenger Mach 3 airliners, the two dates would coincide because of the longer time necessary for the development of an aircraft made from stainless steel or titanium alloys instead of present-day conventional alloys, which would be adequate for the Mach 2+ aircraft.

Airline spokesmen have said that supersonic aircraft will not be required until after about 1970 but that several airlines would no doubt feel compelled to use them if they became available before that time. After about 1967 there should be a fair, although not large, world market for a supersonic airliner whose operating costs were not substantially greater than those of the subsonic jets at that time. It has been claimed that a Mach 3 100-seat aircraft could be produced with unit operating costs

on the longer stages from 3,000 to 6,400 kilometers (1,800 to 4,000 statute miles) of the same order as those of subsonic jets. A Mach 2 aircraft should have somewhat lower operating costs than a Mach 3 plane of stages of the same length and might be economic on some medium stages as well, which would give it wider usefulness, increase its potential market and provide a field in which it could operate later if a Mach 3 rendered it obsolete on the long stages, as the Mach 3 seems likely to be extremely uneconomic on medium-length stages.

A continuation of present trends in air transport suggests that the industry could economically absorb a total of about 60 to 70 100-seat Mach 3 aircraft each year for three years after 1970. If it were decided to produce a Mach 2 aircraft first (medium- and long-range 100-seat), to be available for delivery, say, in 1967, the industry might purchase about 100 such aircraft per year for three years and then about 70 Mach 3 aircraft per year for a further three years. The 300 Mach 2 aircraft should then be able to find adequate utilization on mediumlength stages, while the Mach 3 aircraft operated the longer stages.

From ICAO Bulletin

# ON THE STANDS

HARPER'S MAGAZINE for January gives lead position on cover and in contents to Administrator's article "Pressures Against Air Safety."

# PAMPHLET OFF THE PRESS

Basic Agency pamphlet, "The Federal Aviation Agency," came off-press and will be distributed to field. Another pamphlet, "Sounds of the 20th Century," concerning problem of noise and how FAA is dealing with it, went to press.

# FROM THE Washington News ROOM

# NINE LONG RANGE RADARS TO BE ADDED TO FAA TRAFFIC SYSTEM

Nine additional long range radars have been ordered by the Federal Aviation Agency to increase the capability of its air traffic control system for handling heavy en route air traffic. The \$5.2 million contract was awarded to the Raytheon Company, Waltham, Massachusetts. Delivery of the first radars under the new contract is scheduled for January 1962. Joseph H. Tippets, Director of the Bureau of Facilities and Materiel said that when installed, the new radars will bring the total of FAA long range radars to 52. In addition, FAA uses radar information from 12 military long range radars and the Air Route Traffic Control Centers to be served are still under study.

# AGRICULTURAL FLIERS DIFFER ON POSSIBLE REGULATIONS

Industry opinion on the need for change in regulatory requirements for the aerial applicator business is being analyzed by the Federal Aviation Agency, Agricultural fliers of the Southwest and Midwest at two recent meetings were divided in their opinions on the need for regulations governing aerial applicator operations. At Oklahoma City some 90 aerial applicators, representing both large firms and individual operators, mostly from Texas, Arkansas, Oklahoma, and states farther west, gave general approval of the "Aerial Applicator Standards and Requirements" presented for preliminary discussion by W.F. Clifton and Louis Blaisdell of the FAA's Bureau of Flight Standards. At a subsequent meeting at Topeka, Kansas, attended by some 30 aerial applicators from the Dakotas, Nebraska, Kansas, Colorado, Missouri, Iowa, and Minnesota, the reaction was generally the opposite. The favorable and adverse criticism resulting from the two meetings will be studied by the FAA and used as guides in writing of any regulations that might be proposed.

### JET CARGO AIRCRAFT PROGRAM ANNOUNCED

The United States Air Force and the Federal Aviation Agency jointly announced the initiation of an Air Force program for the development of an all-cargo aircraft designed to meet civil standards and fulfill the needs of both the military and commercial carriers. The Air Force, whose Fiscal Year 1961 program includes a total of \$30 million for this project, has invited the aerospace industry to bid on the development of a long-range air transport that will incorporate common design features to meet military and civil requirements.

# HOEKSTRA NOW FELLOW OF ROYAL AERONAUTICAL SOCIETY

Harold D. Hoekstra, Projects Control Officer of the Engineering and Manufacturing Division of the Federal Aviation Agency, Bureau of Flight Standards, has been named a Fellow of the Royal Aeronautical Society of Great Britain.

# QUESADA ANNOUNCES \$12 MILLION ANNUAL SAVING IN MAINTENANCE OF FEDERAL AIRWAYS SYSTEM

An annual saving of \$12 million in the cost of maintaining the Nation's air navigation and air traffic control facilities was announced in December by E.R. Quesada, Administrator of the Federal Aviation Agency. The saving will result from improved management techniques which are expected to permit the necessary expansion of the Federal Airways System without increasing the number of maintenance engineers or technicians beyond the complement authorized for the 1961 fiscal year. means the Agency will require 1,400 fewer maintenance personnel in 1962 than would have been required under the existing standards and procedures for maintenance operations. The funds for these 1400 positions had already been included in the Agency's fiscal planning and could have been justified under the staffing formulas for facilities maintenance which have been in effect for the past several years.

# FAA PROPOSES REVISION OF REGULATION FOR OVERSEAS CARRIERS

A major revision of the Civil Air Regulation governing U.S. Flag air carriers operating outside continental U.S. has been proposed by the Federal Aviation Agency. Culminating several years of conferences and discussions between the industry, the FAA and the Civil Aeronautics Board, the proposed new Part 41 would be much like Part 40 of the Civil Air Regulations which governs the domestic air carriers.

# FAA'S NEW FLIGHT CHECKING PLANE AND EQUIPMENT SHOWN

New, airborne, electronic equipment for checking air navigation aids, developed by the Federal Aviation Agency and the AIL Division of Cutler-Hammer, Inc., was demonstrated in Washington today. Installed in the first of five FAA Convair 440 flight check aircraft, the complex electronic system, weighing about 5,000 pounds and called SAFI, Semi Automatic Flight Inspection, will perform fast, accurate flight checks as the planes are flown in a grid pattern that covers the whole United States.

# FAA IMPLEMENTS INTERAGENCY GROUP ON INTERNATIONAL AVIATION

An Interagency Group on International Aviation (IGIA) has been established to facilitate the provision of coordinated recommendations to the Secretary of State on international aviation matters, it was announced by E.R. Quesada, Administrator, Federal Aviation Agency. The Group consists of the Administrator of the Federal Aviation Agency as Chairman, and one representative each from the Department of State, the Department of Commerce and the Civil Aeronautics Board, Whenever matters of substantial concern to other Federal agencies are to be considered, representatives from those agencies will be invited to participate on an ad hoc basis in considering such matters. All representatives, whether continuing or ad hoc, will be policy officials with authority to represent their respective agency positions on matters under consideration.

# NEW DIVISION ESTABLISHED IN REORGANIZATION OF FAA'S BUREAU OF NATIONAL CAPITAL AIRPORTS

A new division has been created in the Federal Aviation Agency's Bureau of National Capital Airports to replace two divisions and improve the Bureau's operating structure in supervising the final phases of construction work at Dulles International Airport. The division will have jurisdiction over work at Dulles International Airport and Washington National Airport. The new Engineering Division in the Bureau of National Capital Airports will replace both the Dulles International Airport Construction Division and the Engineering and Planning Changes are to be effective immediately. Richard F. Date, formerly chief of the Engineering and Planning Division has been named Acting Chief of the new Division. Herbert H. Howell, former chief of the Dulles International Airport Construction Division will retire from government service.

### INSPECTION OF U.S. AIRPORTS IMPROVED BY FAA

A new airport inspection function is being added to the Federal Aviation Agency's Airports Division with the addition of airport facility records engineers at selected field locations. This function is FAA's Bureau of Facilities and Materiel will result in obtaining important data on many United States airports. FAA expects to begin collecting airport information under the new system in January, 1961 and plans to hire 19 additional employees to serve as facility records engineers. Accurate airport information is essential to the making of aeronautical charts (used for navigation by pilots) publication of the FAA "Airmen's Guide" and for FAA airport planning purposes.

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# FAA ANNOUNCES RESEARCH PROJECTS TO HELP PREVENT MID-AIR COLLISIONS

Bending every effort to further enhance air safety, the Federal Aviation Agency's Bureau of Research and Development is developing systems and components for advanced air traffic control and navigation that will go far toward preventing mid-air collisions. FAA's Research and Development Bureau Director James L. Anast emphasized that major research and development programs are underway in areas where significant improvements can be made to the current system while maintaining a normal flow of traffic.

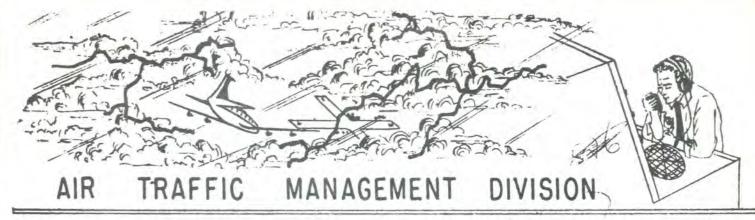
They include efforts in data processing and display, data acquisition, communications, navigation, airway configurations and flight procedures and airborne anticollision devices.

# **OUTSIDE READING**

"The Probable Cause", written by Robert J. Sterling, United Press-International's Washington aviation editor, was published recently. Book covers the work of accident investigation, describes the roles of the FAA and the CAB, contains a wealth of material on airlines, air traffic control and air safety.

### WITH THE NETWORKS

CBS was provided with material for use in a one-hour documentary planned for telecasting next month on CBS REPORTS. Programwill be devoted to subject of air safety.



### WHOOZIT?

Where, oh Where, we wonder today can this young man be in the FAA?

(See following pages for possible clue.)



# ALERT ALL FISH AND GAME COMMISSIONS

Three strikers for a "leisure year" rating are retiring after a total of 108 arduous years of government service:

- Charles T. Comman, San Francisco IFSS, retired January 2nd after 40 years - 16 with CAA/FAA.
- C.R. "Russ" Thrapp, Great Falls, ARTC, retired December 31st after 36 years - 30 with CAA/FAA and lighthouse service.
- "Pat" LeStrange, San Francisco IFSS, on disability retirement after 32 years for Uncle Sam.

All spent time with the Bellbottom Brigade in their pre-shaving days. From the "Boss" on down - our very best wishes for the years to come. You've earned em. We'll miss you.

# ATM SANTAS

The Division Office received a nice letter of appreciation from Columnist Bill Kennedy of the Herald Express for a \$125.00 contribution to the Herald Express Santa Claus fund for needy children.

The Spokane Center/RAPCON, instead of sending Christmas Cards, collected \$108.00 that was given, as in past years, to two missions in Spokane providing meals and beds for needy persons.

If other facilities contributed to similar causes, they modestly withheld the information.

# FIRST AERONAUTS

Did you know Ghengis Khan had an aviation corps attached to his armies? Huge box kites lifted a 150-lb.

man aloft to 200 ft. for reconaissance purposes. (from Seattle ARTC Centerline)

# **NEWS WORTHY**

Lectures, press coverage in the Albuquerque Journal and Tribune newspapers and a KOAT-TV film presentation announced the inauguration of the West Mesa Radar Service from the Albuquerque Center December 5, 1960.

Hayward Tower experienced a white Friday November 19th with a peak hour of 333 operations - total for the day 1608. 80% occurred between 10:00 a.m. and 6:00 p.m. Controllers Madsen, Mullin and Drummond were too busy to confirm that they were busy.

Dave Thomas, AT-1, forwarded a letter from W. W. Braznell, American Airlines Asst. V.P. - flight. The letter compliments BATM personnel for their quiet, courteous, competent performance.

Controllers Cope and Roe of Moffett RATCC made the December issue of "Approach" the Navy Aviation Safety Review - page 24 to be exact.

San Jose Tower/Moffett RATCC has conducted weekly two-hour pilot briefings the past two months in a pilot safety and information clinic at the San Jose Municipal Airport. Oakland Station and GSDO personnel have participated in presenting certain phases of the program. Enthusiastic pilot attendance reported.

Oakland Center received a letter of appreciation from the 4926th Squadron Kirtland AFB for the "can-do" attitude and assistance in a recent B57 deployment exercise.

Ralph Smith, polio victim working at the Seattle Center till his legs and arms recuperate to permit him to do tower work, is now in the saddle with appropriate light gun at the Portland Tower. Shades of Schloredt.

# COME NOW!

Pilot: Salt Lake Center, this is \_\_\_\_\_\_315, ten south of Goodsprings requesting an approach to Las Vegas, over - - -

Ctlr: \_\_\_\_\_315 this is Salt Lake Center, are you operating in accordance with IFR, over-

Pilot: Negative, we are operating in accordance with the G.l. bill out of Reno, over - - -!

# SAVE AND ASSIST SECTION

March RAPCON specialists Sochl, Cassity and Boldt radar vectored on F100, with navigation equipment failure, to a safe landing at Norton AFB. N9987R declaring Mayday near Provo, Utah account icing, low fuel and weather was provided a straight in IFR ASR approach to Salt Lake by Salt Lake Tower specialists Grasser, Smith and Washington.

O'Neil and Gerry, Las Vegas FSS Specialists, furnished instructions to enable the pilot of a Cessna 210 enroute Burley to Las Vegas to orient himself, avoid R-271, and find McCarran Airport for a safe landing.

With assistance from Long Beach and El Toro Towers, Timmerhoff and Campbell of Los Angeles FSS directed a lost Cessna to a safe landing at Long Beach.

Spokane Center, Spokane FSS and Walla Walla FSS collaborated in locating a Cessna 172 lost near Pullman, Wash. and directing the female pilot to a safe landing at Walla Walla.

Albuquerque Center Specialist Reid assisted by Spinks and Derrick radar vectored a T 33 with omni failure to Albuquerque for a safe landing probably saving a T 33.

Harry Fox, McChord RAPCON Specialist, radar vectored a MATS C-124 with a runaway prop positioning the aircraft for a safe landing behind two F 106 aircraft making emergency landings.

Tucson RAPCON personnel at the Mt. Lemmon GCI Site and at Tucson located and radar vectored to a safe landing a T-33 that declared emergency - low on fuel.

Five Spokane Center/RAPCON specialists - Sinnott, Lauderdale, Medford, McKenzie and Bartram aided an IFR Marine AD-5 (declaring an emergency account engine failure) to a safe landing at Spokane International. McChord RAPCON controllers Bullock and Kirby radar vectored, for a successful No-gypo approach at McChord, a Navy TV-2 with no navigational equipment and intermittent radio gear.

Phoenix Center and Tucson Tower/DMA RAPCON specialists radar vectored and positioned a G124 (emergency after two explosions) for a safe landing at Davis Monthan AFB. The plane had a split radome and a burnt rudder section.

Specialist Rammerman, Vita and Stevenson of Oakland Tower twice radar vectored a Mats C-133, IFR with a gas leak, to positions for safe landing.

Is this fearsome pilot the lad on Page 5?

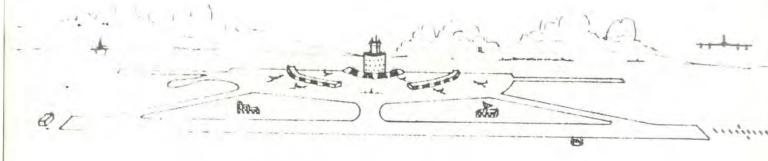




# FUTURES

February issue of REAL Magazine picture story, "The Great Airline Safety Hoax", pointing up FAA's activities on improving airline safety records. BUSINESS AND COMMERCIAL AVIATION has story on Flight Service Stations, highlighting the VFR Flight Following Service. . . . Guest Editorial by Mr. Quesada-- GROUND SAFETY IN AVIATION--in forthcoming issue of National Safety Council Newsletter.... CONSTRUCTION METHODS AND EQUIP MENT, a McGraw-Hill publication, will run a story with pictures on the apron at Dulles International Airport....to be followed up with story and pictures on the Terminal Building.... Another Mc-Graw-Hill publication will run a story on the use of ARSR for en route control....In January, the Associated Press will send out a feature on the

Administrator.... The American Telephone and Telegraph Company is building an audience participation exhibit which will graphically demonstrate the air traffic control system. A push-button arrangement will produce the answers to 18 questions about ATC.... PARADE Magazine is planning a story on FAA's North Atlantic Services .... FLYING's January issue will carry a two-year FAA progress report.... Sometime in January, LIFE will come out with a 12-page story (some pictures in color) on FAA activities.... Article in December's FLYING, "New Aids For General Aviation", tells the story of R&D's efforts. Tests on the visual glidepath indicator, VOR/DME and other NAFEC projects reported in detail.



# FACILITIES AND MATERIEL

# Division Chief's Column

I hope that all of our Region Four FAM-ily enjoyed a happy holiday season. My own was made doubly so when those ever-lovin' Huskies from my old Alma Mammy trounced the national champions in the Rose Bowl.

We have moved a little farther down the road toward getting the Division organized, with the confirmation of Slade Hardee as Chief of the Materiel Branch and the selection of Frank Jennings as his assistant. The four section chief jobs in Materiel are now being advertised. In the meantime the Washington Materiel Division is laying plans for the initial steps toward providing proper Materiel support at our field facilities.

Many of you have no doubt seen the Administrator's News Release announcing a downward revision in the Agency's future requirements for maintenance of the air navigation and traffic control system. This does not mean that we will reduce our present Maintenance force. It does mean that the Maintenance workload will be reduced by improvements in methods and procedures which are presently under development and which will be applied beginning in Fiscal Year 1962 so that we can, with only token increases above our 1961 authorized staffing, take on the added workload of new facilities to be commissioned during FY-62. Of prime importance in developing the new Maintenance methods is the requirement that there be no reduction in the present excellent record of accuracy and reliability enjoyed by our facilities.

In spite of the winter problems in many parts of the Region, our Establishment boys have been doing a fine job keeping the construction and installation jobs rolling, so we considerably exceeded our planned program for the quarter ending December 31. We have awarded the construction contract for the Los Angeles Center at Palmdale and hope to follow shortly with Albuquerque. The Seattle, Salt Lake City and Denver jobs are going right along.

In Airports, we have selected Ted Wendland as Chief of the Engineering Section vice Ben King, who took an OIC assignment in Africa. We also selected Wes Pearson as DAE in Helena to fill the gap caused by Si Perry's retirement.

In closing I'd like to plagiarize an old Indian proverb the Aeronautical Center used as one of their "Thoughts of the Month,"

Make no bad talk about another brave Before you have walked in his moccasins at least two moons.

# Maintenance Branch

Mr. E.C. Stentz, Asst. Chief, Maintenance Branch, attended a meeting in Washington, D.C., December 12 - 16, 1960. This meeting was for the purpose of discussing Fiscal Year 1962 Maintenance Staffing and the problems associated with the previously announced reduction in staffing allowances.

# **Establishment Branch**

# RADAR SITING ADVENTURES

Norman Kergaard FM-4365

Have you ever spotted an FAA facility while cruising on a lonely highway, complimented yourself for correctly identifying it, and then mulled over in your mind how it came into existence? Who built it and when? How much did it cost and who takes care of it? How many pilots does it guide at this very instant? Where did it get that strange name? Why was it built there instead of on that nearby hill which looks better, etc? No end of possible questions, some answerable and some too abstract. Each facility, even those in the site selection stage, has a human story to tell, besides the cold technical story. Let me tell you, for example, what it took to get the best site for the Grand Junction long range radar.

The composition of the siting team was typical; an electronic engineer from Joe Orr's Radar Electronic Unit, and a plant engineer from Norm Seewald's Radar Plant Unit. One of the Plant's responsibilities was to get men, instruments and tower scaffolding to each site under study. Fulfilling this responsibility is usually routine. You just need engineering common sense, rugged vehicles, hiking endurance, and paper work to hire local help and

equipment. But these capabilities were not enough to do the job on the 11,120-foot Crag Crest Site. This primitive area in the Colorado Rockies previously only attracted a few skiers, hunters, and trappers. Although just 30-air miles from the airport, the Crest might as well have been in Canada so far as easy access is concerned. Except for cliffs, the mountain is tree covered and snow stays on the ground for about 10 months a year. Previous attempts to reach the site ended in failure due to storms and snowcat problems. The Washington deadline for establishing this vital radar was rapidly approaching. The analysis of field data from other promising sites had been finished for weeks. But, Joe Orr's radar experts could not take the next step in this complicated business of ARSR (air route surveillance radar) site selection until similar data had been scrutinized from Crag Crest.

Electronic and Plant Chiefs, Ray Anderson and H. Washburn, were consulted on technical aspects of the problem and "contracting officer" Frank Jennings gave a guarded O.K. for possible unusual expenses. Then Charlie Grosh gave the go ahead and ominously implied, "Don't come back without the facts, and make it soon." Things happened fast now. Based upon previous excellent field work, Construction Engineer, Paul Rittenburg, was selected and soon was flying to Grand Junction. Telegrams were sent to military bases in Colorado to line up helicopter aid. Electronic Program Engineer, Bob Faul, wisely backed this up with a call to the Hiller Co. to learn where their nearest 12-E copter was located. This is the same type machine that made the daring 17,000 foot rescue off Alaska's McKinley earlier in the year.

Paul spent the next day in a Cessna 210 flying the mountain to take photos of possible access routes and best parachute drop areas. During one low pass only the reserve power of the new 210 saved it from disaster during a violent mountain downdraft. Then he visited the District Forest Ranger to compare aerial photos, procure what scanty mapping was available and get briefed on survival procedures. Grand Junction ATDO Assistant Chief, Chuck Piccone, provided very effective assistance to the venture. He assigned SES Bill Robinson, a real outdoorsman to help, and Bill worked many diligent hours of unpaid overtime. Chuck Piccone also shared his RCAG site snowcat for transportation. The cat was very useful but had mechanical limitations and was not practical for hauling the 60 foot tower frames. A phone call to Ft. Carson quickly put a big U.S. Army H-34 Sikorsky on the job. Although a good performer at sensible altitudes, the H-34 could not land or get off the tiny clearing between trees at this 11,000 foot level. Therefore, six parachute drops of packaged tower parts were made after Paul had defined the target area and wind direction with smoke bombs.

The turbulent air made the drops difficult and scattered them over the thickly timbered mountain. It took a few days of arduous snowshoe work to locate the cargo chutes. To erect the tower, it was necessary to dig thru 12 foot of packed snow to reach frozen ground. Erecting these towers is quite a chore under ideal conditions; imagine what it is like in the bitter cold at an altitude where you can't get a decent breath!

Now Paul had his tower built and Electronic Engieer, Dick Sutton, visited the site to make an evaluation of electronic factors. But, they still had problems in getting instrument readings and horizon photos which require very clear weather, not to mention getting the tower down, and since the month was May, the snowcat no longer was usable because of the rotting snow. There was still one ace in the hole. A call to Denver had well-known copter pilot, Hersey Young and his 12-E, on the way the following day. Fully informed of the difficult nature of the job, he agreed to get payloads in and off the Crest or else get no payment.

The readings and photos were then taken and flown down to Grand Junction for immediate development to make sure we didn't have any dud negatives. The film was good! Now all that remained was the formidable task of getting that costly tower back to the man we rented it from. Five a.m. the next morning, the 12-E took Paul and Bill, one at a time, to the tower to dismantle it. Young secured a heavy bundle of tower parts to the copter and made a hairy slide down a steep sideslope under full power to gain takeoff speed. On the eighth such take-off the 12-E barely got airborne, and there was still one bundle and two men to get off the Crest. He could no longer land at 11,120 feet due to the slightly warmer mid-day and the early turbulence of a storm expected soon. Young had told Paul if he could not land that he would try setting down on a frozen lake about 1-1/2 miles away at 10,000 feet elevation. Now it became a frantic snowshoe race to the lake for the two men dragging tower braces.

This unexpected exercise didn't hit Bill so hard since he was in good shape and use to the altitudes. But, put yourself in Paul's boots, or better yet, unaccustomed snowshoes. Sea level lungs starving for air, carrying a few extra pounds, reaching the age to start thinking about Saratan and out there dragging those damn steel braces at top speed. Because if that copter could not land, they would be trapped in a snowstorm 10 miles from the nearest cabin shelter. I can only guess what he was thinking about. Probably cussed every cigarette he ever smoked, every workout he cut at Vic Tanny's, and maybe everyone in the warm and safe R.O. too, for all we know. He won't say. Needless to say, they were picked up, but only a few minutes before the storm hit. Well, you will be happy to know, especially those of you in Radar Maintenance

work, that Crag Crest did not prove any better than a far more accessible site which has since been recommended to Washington. But, I know several electronic engineers and the Branch boss would never have been satisfied unless every possible site had been investigated and anplyzed.

So you see, even though construction won't start for a few months, the Grand Junction ARSR already means much to many people, both in and out of the FAA. The Branch boss says well done! It is the unselfish loyalty of people like these that bring success to our programs. In the face of treacherous weather, impossible terrain and hazardous conditions these men do their work as if everything were normal. These are the kind that make true the adage "miracles take a little longer". Because of this and similar experiences, we have since equipped the crews with breathing oxygen for high altitude sites. Now they can work hard all day and not get out of breath.

# Civilair News

The CIVILAIR employees organization held a formal opening of the new patio area on December 21, 1960. Toastmaster for the affair was Bill Sullivan, Chief of the Employee-Management Relations Branch. Officers of the organization were introduced and special tribute was paid to Walter Moon, Chief of the Administrative Services Division, for his outstanding contributions to the organization over the past years.

Employees enjoyed coffee and cake refreshments thru the courtesy of CIVILAIR, while a choral group composed of the various Divisions sang Christmas Carols. The choral group was directed by Patty Carpenter of the Airport Branch, and included among the numbers was a solo performance by Kenneth B. Wall, Chief of the Personnel and Training Division.

Gloria Saucier, of the Processing Branch, drew the names of the following Christmas ham winners — Regional Office — Edward O. Anderson, FM-4282; Donald E. Brink, AT-4024; Gladys L. Burger, RM-444; Stanley Danek, FM-4370; Elizabeth R. Dearn, FS-4300; Leo J. Fleming, FM-4134; Nacella Garrison, FS-4160; Bette Herrell, RM-495; Walt Horn, FS-4120; Louise J. Walter, FM-4254. Field Personnel — R. E. Abbott, Delta, Utah; Donald M. Fulton, Burbank ACSDO-32; Leland C. Hahn, Boise, Idaho;

Charles C. Lambert, Airport Station, Oakland, California; E. L. Ware, Palmdale, California.

The Organization wishes to acknowledge its appreciation to Mr. Paul Newport, of the Electronic Shop, for the many hours of personal time he has devoted to providing pictures of the many employee functions.

> BELOW — Bill Sullivan and Gloria Saucier announce the names of Christmas ham winners.





LEFT — Members of the choral group who entertained Regional Office employees with Christmas carols. Many male members cannot be seen because of the group's size.

# WHAT'S NEWS????

# WIRED FOR SCIENCE

A medical "gadget" being used at the FAA Civil Aeromedical Research Institute at Oklahoma City may well set some of the pace of aviation's future.

The gadget—if that term can be applied to more than \$100 thousand worth of complex electronic equipment—is a mobile telemetering system that is capable of transmitting and receiving, recording and charting such data as blood pressure, respiration, heart action, brain waves, temperature, galvanic skin responses and other information from a subject miles away.

One of the many factors undergoing study at CARI is one of fatigue. At what point does the pilot of any aircraft—general aviation or carrier—lost his best judgment and become a danger to himself and others? How can this be avoided?

This same factor in tension and fatigue is being studied in relationship to control tower operators. The main problem in the latter study has been the question of letting the control tower operator maintain freedom of movement and still permit the researchers to get their findings.

That problem resolves into a dual solution. First—a telemetering van that can be operated in an area remote from the control tower and the operator. This telemetering van contains the receiving and recording end; signals from the control tower operator are picked up by four UHF receivers. Across the narrow aisle of the buslike vehicle is a huge, built-in tape recorder. The one-inch tape records all 20 signals simultaneously, if that many are being picked up, and transmits them into a visacorder. This prints a graph showing pulse, respiration, body temperatures and other data picked up by electrodes taped to the skin of men miles away.

The other part of this operation, the transmitting end, is carried on a shoulder harness and weighs 7 pounds and 10 ounces—less than a good hunting rifle. It can be worn with virtually no restriction to a subject's normal activities.

Its rechargeable, nickel-cadmium batteries form a power pack about the size of a thick paper-back book. A unit slightly larger than a cigarette package holds five subcarrier oscillators and a voltage regulator. The round transmitter is about the size of a coffee cup. All fit in leather pouches around a belt, and a slender antenna projects upward a foot or so behind the wearer's back.

Tower operators will wear the transmitting belts, both under "normal," clear-weather, non emergency conditions and when the weather turns bad and air traffic is stacked high above the field.

Another projected use of the equipment would test the tensions and reactions of crop-dusting pilots flying within range of the receiving van. It can be used in the studies of subjects laboring at high altitudes or athletes going all-out in track meets and games.

It can be pointed out that most medical studies of this kind have been done in an artificial state, such as in a laboratory or a clinic. This permits instrumentation on people and allows them to perform their regular operations, recording their medical and physiological data while encumbering them as little as possible.

One of the most ambitious projects will be the transmission of electroencephalograph impulses to record the pattern of brain waves.

Says the director of research at CARI, Doctor Robert Clark, "This has never been done on a mobile basis. It takes a lot of complicated equipment, even in a laboratory. We will have to design some kind of a Buck Rogers helmet with a lot of electrodes and so on, and yet the whole thing, belt and all, can't weigh over about 10 or 11 pounds. The project should take two years, but we may have it ready by May."

The actual testing of pilots, control tower operators and other personnel within the framework of the Federal Aviation Authority — the checking of those who work under constant pressures and high tension — will become an actuality within a few short months.

The telemetering van has a combination heat pumpair conditioner that will keep temperatures inside from varying more than five degrees, even under the most extreme exterior conditions of cold or heat. Power for all the operations is supplied by a gasoline-driven generator towed behind the van.

All this equipment is still being tested to get rid of all the bugs, but one of its first applications this next spring will be near control towers of such major air terminals as Idlewild in New York City, Midway at Chicago and Love Field in Dallas.

So, if you step into a control tower in the near future and see a man wearing an unusual type of helmet and a belt with many wires leading to his body and head, don't worry about it. It's just another medical step in the many steps forward to make your flying safe.



# Maintenance Branch

# PERSONNEL TRANSFER

Regional Office welcome mat is in place for Inspector Ben Wells. He is transferring from GADO 4-18, Ontario to a position as Maintenance Specialist in Ford's department, FS-4340.

Bens' replacement at Ontario will be George Bernard formerly assigned to San Diego AEDO 41.

# MEMORABLE OCCASION

On November 18, 1960 the officers and directors of Bonanza Air Lines held a luncheon commemorating Bonanza Air Lines as being the first all jet-powered air line in America. This luncheon was held at the Terrace Room of the Desert Inn Country Club in Las Vegas, Nevada with George E. Haddaway, Editor-Publisher of Flight Magazine, serving as Master of Ceremonies. The guest speaker was the Honorable Whitney Gillilland, Chairman, Civil Aeronautics Board. There were approximately 300 guests present, including presidents, vicepresidents, etc., of several of the major trunk and local service lines. Mr. Gillilland's speech was very impressive and contained interesting facts of past and present records regarding airlines and the aircraft industry as a whole. George Haddaway's usual good comments and wisecracks in performing his task as Toastmaster were well in line with the memories of those who have known him in the past. George C. Prill, Deputy Director, Bureau of Flight Standards, represented General Quesada, Administrator of FAA, at this luncheon and was called on to make a brief talk. His comments brought a warm greeting from General Quesada and highly commended Bonanza Air Lines in becoming the first airline to utilize all turbine-powered equipment in their scheduled operation.

# VICTIMS OF THE JET AGE

The fate of the older reciprocating engine air carrier aircraft appears to be creating a trend, at least in the

Oakland General Aviation District. This office is processing application for export to Ecuador on one Boeing 377, with two more on the way from Seattle for additional export procedures. A Douglas DC-3 formerly operated by Bonanza Airlines is also being processed for export to Japan. Large airframe repair stations in this district are busily engaged in these preparations.

# SCHOOL BOYS

Inspector Brittain returned to duty on December 12, after two weeks attendance at Transport Electrical Systems Course, Oklahoma City.

Supervising Maintenance Inspector Robert L. Cox attended the EE-2, Transport Aircraft Electrical Systems, Course at the Aeronautical Center from 11/28/60 to 12/9/60.

Inspector E. E. Kilbride attended a one-week course covering the Kollsman Integrated Flight Instrument System at the manufacturer's plant at Elmhurst, New York.

# **Operations Branch**

As a result of a joint request of the Los Angeles Sheriff's Department, Pasadena Municipal Authorities and the FAA, there were only two violations of our request that pilots avoid flying over the Pasadena Rose Parade and the Bowl Game. This is a record since in the past violations have run as high as thirty-five for this annual year-end event. Pilots were requested to fly above 3000 'MSL in the area and to exercise precautions before maneuvering their aircraft. The increase in sight-seeing and other non-essential aircraft over this area during the past few years has been such that a serious air traffic safety problem has developed. This year as in the past, the Sheriff's Aero Detail and the FAA patrolled the area on January 2 and all commented on the fine cooperation of the General Aviation pilots. We would like to add our thanks to all the pilots for their cooperation and to all others who played a part in assisting us in this important safety program.

# '60 BIG YEAR FOR HELICOPTERS

Helicopters came into their own during 1960 when two events of great significance took place. Each was a first in its field.

One, representing a major break-through, was the certification, by the FAA's Bureau of Flight Standards, of the Sikorsky S-62 the first pure jet helicopter to be built in the United States. The S-62, a single-engine 10 place transport, will go into scheduled air carrier service in 1961.

The other helicopter first was certification of a 4place Cessna to operate under instrument flight rules in weather minimums equivalent to single-engine fixed wing aircraft.

# **Engineering & Manufacturing Branch**

# VISITORS FROM ACROSS THE SEA

Two representatives from the Swiss American Aviation Corporation in Switzerland visited our office this month to discuss requirements for a new turbo-jet airplane now in the preliminary design stages. The airplane will incorporate two General Electric engines which are to be mounted near the tail of the airplane somewhat like the Caravelle. The airplane, whose model designation will be SAAC 23, is intended primarily for business use and will seat seven passengers.

Our sympathy is extended to Mr. Rocco L. Lippis at the unexpected death of his mother in Seattle.

# \* \* \* \* \* \* \* \* VACATION REPORTS

Nacella Garrison and Walter Horn were lucky winners of Christmas hams in the Civilair drawing just before the Holidays.

Kathy Leonard still limps slightly from a toboggan accident which happened on her recent trip to Big Bear.

Johnny Johnson is on vacation in Shamrock, Texas. Should be a "lucky one" with that shamrock in there!

Mary Ann Wuest has stars in her eyes - almost as bright as the new sparkle on her third finger.

\* \* \* \* \* \* \*

Jean Boswell, Burbank District Office, is away from her duties due to a hard fall. There were no broken bones but painful enough to keep her at home nursing her bruises.

Susan Peterson should have some interesting experiences to relate when she returns from her Christmas vacation in Honolulu.

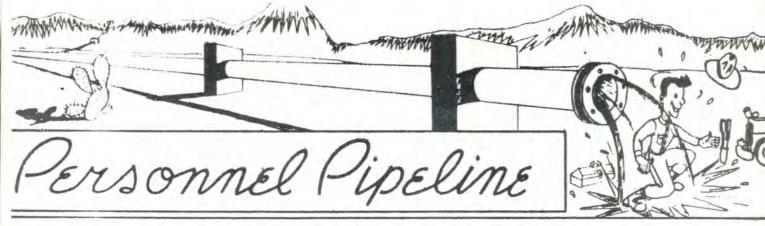
The crunch of snow and icy temperature of a Minnesota winter - plus a severe snow storm encountered in Denver, made the sunny skies and 80° temperature of Los Angeles look "pretty good" to Gary Killion when he returned from Oklahoma City training and a short vacation.

# WELCOME - TWICE WELCOME

It is a pleasure to welcome a new employee, - Mrs. Mabel Fox, into our Flight Test Section, this month.

June Broadwell will return to the office after a trip to her home in Bellingham, Washington.

It raineth on the "just"
- and on the "unjust" fella,
But mostly on the "just"
Because the "unjust" stole the "justs" umbrella.



In our Personnel & Training functions, we have had our share of obstacles and growing pains, but we point to a satisfying year of service. We thought a brief capsule of some of our year's highlights might be timely and informative. A few come to mind.

- Over 200 supervisors in the region were trained in our Management for Supervisors course. Chet Stalker and Ross Burnett "hitch-hiked" all over the West in bringing the message to many of our far-flung field facilities.
- The Federal Employees Health program became effective on July 1. 90% enrolled in the plan. Plaudits to our Employee Relations Branch for getting the word out. This was truly an educational challenge
- Extensive "Paid" newspaper advertising was a new legal wrinkle that permitted us to make a break-through on recruitment. FAA recruiting has now come of age and favorably compares with private industry's approach.
- 211 employees were granted "Outstanding" performance awards. 537 employees were recommended for Sustained Superior Performance (SSP's) with 296 cash awards being approved.
- 1812 new faces appeared on the payroll, while we were losing 927 -- a net employee increase of 885. We grew from 6334 to 7219 during 1960.
- From among 30,000 federal employees in Southern California, Placement Officer Virginia Trollinger was honored as one of 5 finalists for the title "Miss Federal Employee".
- Over 3500 regional employees were inoculated against Asiatic Flu in a program geared to minimize the possibility of an epidemic.
- FAA's Effective Writing course was presented at the field facility level--Oakland. This was a trial balloon, but proved so popular and wellreceived that other points have appealed for it.
- We are now studying pay for Electronic Technicians in industry to see how our jobs pay by comparison. This is an exhaustive survey that has extended over 3 months.

- 10. For awhile it looked as though many FAA employees and their families would have enough comers to charter a plane to Europe (including Russia) When actual "dough" was asked for, many prospects decided to expend their resources some other way. After an optimistic beginning, our plans went down the drain. So we all stayed home!
- 70 employees received suggestion award checks for submitting worthwhile ideas that were approved and adopted. 10 cash awards were awarded for Special Acts or services...
- 12. Personnel changes and classification problems of the Agency-wide reorganization taxed the patience of all of us. Although not yet complete, the major hurdle to reorganize the Regional Headquarters is now written in the record books. Various segments of the F & M Division and the Regional Manager's staff are just now blossoming. Relatively, ATM and Flight Standards are farther down the river.

### AND THE FUTURE?

As to problems this year, we know that the Personnel and Training function can anticipate some interesting sessions on such matters as:

- Delegation of personnel authority (i.e. Classification) to the operating divisions. This potentially will change our role from a "doing" to an "Advisory and Audit" role.
- Classification problems for positions below Regional Office Chiefs.
- "Operation Straightline" and the staffing of Area offices.
- Quality Recruiting for Radar Technicians and all species of Engineers.
- Rather drastic changes in our Promotion Plan with particular emphasis on Supervisory type iobs.

# MAKING YOUR IDEAS PAY OFF

Several large Incentive Awards have been approved recently for Region Four employees. While all usable ideas offering benefits to the Government are appreciated, we naturally hope for, and are pleased to see the big ideas pay off.

Knowing the caliber of our FAA people, we realize there is still a tremendous reservoir of untapped ideas, just waiting to be described in a clear, concise and complete manner.

There are some areas of course in which it is difficult to grant an award because the idea falls within the expected job responsibility of employee. This would include, for example, ideas which involve the use of Stencils, Decals, Rubber Stamps, Form Letters, Overprinting of written material, and in the field of Air Traffic Control - the different forms of range/mileage computers.

In the following article, Mr. John D. Roth, of the Federal Incentive Awards Program, points out a few of the techniques followed by successful suggesters in making their ideas pay off.

Today thousands of Federal workers are looking for ideas to help their agencies do a more efficient and economical job. Financially, it can be well worth their time and effort, for the good, practical idea can mean substantial extra cash in their pocketbooks.

This is borne out by the results of the Government-wide suggestion program for fiscal year 1960, compiled recently by the Civil Service Commission. The figures show that some 50 agencies paid out more than \$2½ million last year in awards for 113,000 adopted employee suggestions that have a total dollar value of over \$68,000,000.

Most of the suggestion awards made last year were in the \$10 to \$50 range -- the average award amounted to \$25. But there were many employees who came up with the big idea and the big payoff. The big ideas last year ranged from a commonsense proposal to the highly technical one thought up by three employees of the Federal Aviation Agency. They worked out a new and improved technique for flight-checking the accuracy of the "beams"

that guide a pilot on his final approach to a landing at the airport -- one of the most critical periods in the operation of an aircraft. The employees -- Allen Morissey, Julien Bouvier, and Orien Farris -- received \$1,175 for their suggestion which will save an estimated \$547,000 in flying costs and equipment.

Mr. Farris' approach to suggestion-making pretty well summarizes the views of many of the big award winners we questioned. On the basis of his experience both as a suggester and as an evaluator of other people's suggestions, he advised this 4-point approach:

"(1) Be concise in describing the proposal, what it is intended to do, how it could be applied, its costs, and benefits to be derived from its adoption. (2) Remember, that by means of the suggestion you have something to sell and that can be accomplished only if you make your presentation clearly and concisely so that the buyer can see the advantages and want to buy. (3) After preparing the presentation, study it from the viewpoint of the re-Ask yourself the question, 'Would I approve this suggestion?' Unless you can honestly say yes, based on what you have written, you should revise the suggestion so that you can answer that question with an unqualified yes. (4) Discuss it with your supervisors and get their reaction. They may know that it has been previously tried and found deficient or they may be able to suggest improvements in the presentation that will make it more acceptable."

To sum up, the suggestions that paid off big last year were the ones that were aimed at making significant improvements in operations where the suggester was the day-to-day expert. They were the ones that reduced manhours or cut the cost of supplies, equipment, or paperwork to a substantial degree. They were also the ones that were thoroughly thought out, clearly described, and checked out with supervisors or other specialists before submission. They were the kind of practical ideas that cost-conscious managers welcome because they bring the greatest return to the Government, as well as to the employee.

# 14 SUGGESTION AWARDS MADE IN DECEMBER, 1960. TOTAL: \$710.00

Carl W. Armstrong

ATM Division, Long Beach, California - Provision of a Ratchet to permit only clockwise rotation of the CA-3344 Channel Selector Switch. Washington Award: \$25.00

Lester L. Avett

Resignee, Formerly F & M Division, Great Falls, Montana - Alignment of the OA-348 Indicator to

Reduce Center Walk. Award: \$35.00

Norman W. Beal

ATM Division, Oxnard, California
- Method of Distributing Pilot Reports. Washington Award: \$200.00

Ricardo Cassell

ATM Division, Seattle, Washington

ATM Division, Seattle, Washington
- A Device to Facilitate the Determination of Range/Mileage and Vector Headings in the Control of Air Traffic when using a Horizontal Radar Display (VG scope).

Award: \$10.00.

Roland J. Cerny

ATM Division, Oakland, California

- A Dual Transmit Receive Unit
for use in on-the-job training.
Award: \$50.00.

Shirley H. Fritchoff Flight Stds Division, Boise, Idaho
- Preparation of Certificate of
Waiver, Form FAA-663. Award:

\$15.00.

Carlos A. Keasler

F & M Division, Seattle, Washington - A Provision for Variable
Range Control on the OA-348/
CPN-18A. Washington Award:

\$150.00.

Walter C. Langham Flight Stds Division, Santa Monica,
California - Use of a Stainless
Steel Self-locking Nut on Propeller

Award: \$15,00.

Maxine Libby

Accounting Division, Los Angeles
RO - Procurement of W-2's for the
Following Tax Year so that it will
not be necessary to manually revise and adopt previous year forms
to provide separating employees
with tax withholding statements.

Carroll W. Matthews

Washington Award: \$10.00.
ATM Division, Fairchild AFB,

Governor Installation. Washington

Washington - Proposed a Revision of ANC/PCAT 2.0404. Washing-

ton Award: \$25.00.

Alfred C. Morgan

ington - Elimination of the possibility of Transmitting a Message into a busy circuit from the Model 28 ASR SBXD. Award: \$125.00. Flight Stds Division, Santa Mon-

F & M Division, Hoguiam, Wash-

Kenneth L. Oril Flight Stds Division, Santa Monica, California - Proposes Installation of a Plate on the Scope Rack on DC-3 Type II Aircraft, to

Dan J. Seitz

prevent the entrance of foreign material. Washington Award: \$15.00. F & M Division, Los Angeles RO-Proposed Revision of the W-2 Form to provide for uniformity in the location of the name and address block and allows use of window envelopes and eliminates typing. Washington Award: \$10.00 Formerly F & M Division, Seattle, now at Aeronautical Center - Pro-

posed Modification in the Single-

phase Resistance Load Banks

Manufactured by the Wolfe and

Washington Award: \$25.00.

Manufacturing Company.

Franklin N. Wise

\* \* \* \* \* \*

SPECIAL ACT OR SERVICE AWARDS

The Washington Incentive Awards Committee granted a Special Act or Service Award of \$500.00 to Eugene Mathews, and \$250.00 to Ray Van Buskirk, both of Facilities and Materiel Division, Los Angeles RO, for outstanding services rendered on Project Straight-Line.

# IN THE TRADES

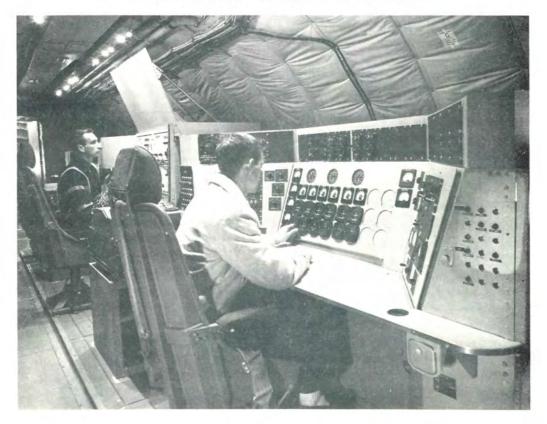
Cover of FLYING magazine for November gave top billing to story titled "Testbed for Tomorrow: NAFEC." The story, profusely illustrated, describes many of R&D's projects in detail.

December AIRLIFT carries a double spread, pictures and story, on new Atlanta Center . . . . A two page story with pictures on OPERATION PATHFINDER . . . . and a story, complete with illustration, on new jet KC-135 for high altitude navaid checking . . . .

Dupont Magazine (circulation 250,000 domestic and international) carried story, "Taking the Walk out of Air Travel", about Dulles International and the Mobile Lounge.



FAA'S NEW HIGH ALTITUDE FLYING LABORATORY



INSTRUMENTATION ABOARD THE KC-135

# New Flying Lab Ready For Service

The Federal Aviation Agency's huge new high-altitude flying laboratory rolled onto the runway at Will Rogers Airport in Oklahoma City the last week in December. The huge converted KC-135 has been modified and equipped with the electronic gear needed for checking ground navigational facilities across the country and elsewhere around the FAA periphery.

The KC-135 was purchased last year through the Air Force and is the second big jet in use in the Oklahoma City area. The second 135 is currently being used for the training of flight inspectors. It will be brought to the FAA Aeronautical Center for modification and installation of avionics equipment this next April.

The flying lab in current use, originally built as a cargo plane, has been equipped with special electronic gear to enable an in-flight check of ground stations sending out radio signals to planes in flight.

Previous to the conversion of this mammoth jet, the high altitude checks were accomplished by smaller jet aircraft.

The "big bird" and its crew will check VOR facilities and TACAN facilities scattered across the nation to see if the stations are sending out directional headings within prescribed tolerances.

The TACAN and VOR stations give directional aid to military and airline pilots as well as the smaller craft of general aviation. The KC-135 will do its inspection

work generally at altitudes above 24-thousand feet. That's the designated bottom of the jet aircraft flight area.

The equipment installed in this big plane is calibrated to measure these navigational aids. Changes in the FAA KC-135 include minor cockpit changes to conform to commercial airlines operations.

The biggest change is in the former cargo compartment where three large electronic consoles have been installed.

Two large control panels will receive distance information sent out by eight VOR and four TACAN stations. A larger center console will receive distance information from four distance measuring equipment stations and four TACAN facilities.

From these facilities, the electronic technicians will feed information to a recorder which will be analyzed after the flight.

The FAA's Data Processing Lab will determine the accuracy of the ground facilities.

The all-jet laboratory also includes a galley in the rear compartment as well as bunks for a second crew in case of extra long flights. Many of these flights will be of great length and duration . . . for this aircraft and her sister, to be fitted next Summer, will cross the United States and other areas many times a year in a constant checking of the airnavigational aids.

# A COMMUTING RECORD

DO YOU COMPLAIN ABOUT HAVING TO GET UP EAR-LY TO GET TO WORK ON TIME?

How would you like the schedule of one Walter Bailey who lives in Union City, Ohio and commutes no less than 227 miles every day?

His day get underway at 3 A.M. with breakfast which his wife, Maxine, who gets up at 2:30 A.M. has already fixed. Bailey's morning repast takes about 20 or 25 minutes. By 4:05, he is ready to begin the 113½ mile trek to his desk in Columbus, Ohio.

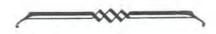
By 6:50 P.M., Bailey is home with 227 miles beneath his wheels and three hours left before bedtime to weed his garden, work on his antique cars or watch TV.

Some fast figuring will show that during Bailey's work week of five days he drives a total of 1,135 miles. Therefore, in a month, he drives more miles than it takes to go from coast to coast.

### DID YOU KNOW?

Flying and farming mix profitably at many airports in the West. There are four agricultural leases at the Van Nuys (Calif.) Airport and six at the Los Angeles International Airport which last year produced an income of more than \$2,700 for the Los Angeles Department of Airports.

Crop growing also provides good ground cover, cutting down on maintenance and drainage expenses on land which otherwise would go to waste because it must be kept clear of obstructions.



# Information For Voluntary Pledge Plan - Trustees & Members

- 1. When enrolling new members please remember:
  - A. If a new employee is from outside the Government Service only a beneficiary designee card and initial \$5.00 pledge is necessary as physical examination will be on file in the Regional Office.
  - B. If a new employee has transferred from another FAA Region; from FAA Washington, D.C., or from another Government Agency physical examination is required for VPP purposes unless the employee was required to furnish physical prior to transfer. Please state status when submitting designee card and initial \$5.00 pledge. A class II medical taken within the 120 days allowed for joining VPP is acceptable.
- When reporting old members transferred to your facility in Region IV please state the name (not abbreviated or call letters) of the facility from which the member transferred and forward new designee card with current address thereon.
- NEW EMPLOYEES AND TRANSFEREES HAVE 120 DAYS FROM DATE OF ENTRANCE ON DUTY IN THE REGION TO JOIN THE PLAN.
- 4. Please do not use the form developed for reporting repledges as a result of death of a member, for reporting new members. These forms are hard to replace and a simple memo will serve the purpose for new members. PLEASE REMEMBER WHEN YOU SEND CASH YOU DO SO AT YOUR OWN RISK AS WE CANNOT ASSUME RESPONSIBILITY FOR ITS SAFEKEEPING.
- When reporting repledges as a result of the death of a member;
  - A. Please use Form developed for that purpose and list repledging members in alphabetical order.
  - B. If you have new members who transferred to your facility from another Region IV facility (since the last death prior to the one for which repledges are being submitted), please show opposite the name of each such transferee the name (not abbreviated or call letters) of the facility from which transferred. Do not continue to report transfers after the initial reporting.
  - C. If any of your members have transferred to another Region IV facility (since the last death prior to the one for which repledges are being submitted) please show this information in the space provided therefor at the bottom of the Form indicating name of member and facility to which transferred (please do not abbreviate or use call letters of the facility). Do not continue to report transfers after the initial reporting.
  - D. IT IS IMPERATIVE THAT CARE BE TAKEN IN COMPLETING THAT PORTION OF THE REPLEDGE FORM PERTAINING TO MEMBERS WHO

- DO NOT REPLEDGE. IF A MEMBER DOES NOT REPLEDGE BECAUSE OF RESIGNATION, TRANSFER, OR ENTRANCE INTO THE MILITARY SERVICE, SUCH MEMBER IS ELIGIBLE FOR MEMBERSHIP IF REEMPLOYED IN OUR REGION. IF A MEMBER WHO IS STILL AN EMPLOYEE OF. REGION IV FAILS TO REPLEDGE SUCH FORMER MEMBER IS FOREVER BARRED FROM MEMBERSHIP. THE COLUMN HEADED "DID NOT REPLEDGE" IS FOR USE ONLY FOR THOSE MEMBERS WHO DROP OUT ALTHOUGH STILL EMPLOYED IN OUR REGION.
- All correspondence, initial pledges, beneficiary cards, physical examinations, and reports of repledges as a result of a member death should be forwarded Attention: AT 4036.1.
  - A. All checks and money orders should be drawn to the order of "REGION IV FEDERAL CREDIT UNION". PLEASE, REPEAT, PLEASE DO NOT ISSUE CHECKS PAYABLE TO AN INDIVIDUAL AS THIS CREATES ADDITIONAL WORK FOR US. AGAIN, PLEASE DO NOT SEND CASH.
- 7. The rule on when an applicant becomes a member, eligible for the benefits is:
  - A. After the application has been processed by the VPP Chairman Except in cases of failure to comply with requirements such as no designee card, no physical, etc., this is usually within five days from date the application is mailed. In the interest of saving time we have adopted a negative system than an applicant may be considered as accepted for membership five days after mailing application unless advised to the contrary.
  - B. There is one exception to the above and that is, should pressure of work or other reason delay processing applications your Administrative Board reserves the right to decline acceptance of a new member even though the five days have elapsed.
- 8. The deadline established for repledge for each death is the deadline for individual members to repledge. Local Chairman or Trustee do not have to submit repledges until the following day unless of course the deadline falls on Friday or the day before a holiday, in which case the deadline for submission of repledges would be the next working day.
- 9. Please, please do not accept repledges from members other than your own group. This has particular reference to travelling personnel who happen to be at a facility during a repledge period making it convenient to pay directly to the local Chairman or Trustee rather than forwarding to their own group. This practice creates a heavy administrative load which we cannot assume.

It is suggested that this page be detachable and one copy given to the local VPP Trustee and the other be permanently displayed on your bulletin board for information to all VPP members.

# Civilair Christmas Dance



CO-CHAIRMEN Bill Sullivan and Virginia Zielinski



FACILITIES & MATERIEL Jean & Slade Hardee, Fred & Mary Ellen Wild.



PERSONNEL Madeline and Glyndon Riley



LOS ANGELES CENTER Pat & Jean Schiffman, Elaine & Donald Hutchison, Dave & Eilean Candland. Right of Table — John Dunham & Virginia Zielinski.



AIR TRAFFIC MANAGEMENT Rose Pettibone & Bill Flener

Approximately 400 members and guests attended the Annual Civilair Christmas Dance in the lovely surroundings of the Deauville Country Club in Santa Monica on the evening of December 17, 1960. Co-Chairmen in charge of arrangements were Virginia Zielinski, of the Los Angeles Center, and Bill Sullivan, Chief of Employee Management Relations Branch, both officers of CIVILAIR. Christmas decorations festooned the walls and tables and numerous door prizes were given throughout the evening. Many requests have already been received requesting a similar event within the next few months.

# A BOUQUET FROM ATA

# AIR TRANSPORT ASSOCIATION

Office of the President' Stuart G. Tipton 1000 Connecticut Avenue, N.W. Washington 6, D.C.

October 26, 1960

Dear Mr. Quesada:

Two years ago this month, the initial scheduled air carrier jet service was inaugurated. This service involved European operations north of New York and required only three routes. In December of 1958, domestic service was inaugurated between New York and Miami, and in January of 1959, transcontinental service was inaugurated with four jet routes.

Since that time, the Federal Aviation Agency has implemented many United States let routes that are authorized for scheduled air carrier service. This has been accomplished with provision for Radar Flight Advisory Service utilizing Air Defense Command radar sites as well as Federal Aviation Agency radar installations. While this program has had its share of problems, it has been handled in exceptionally fine fashion by FAA.

It is our opinion that the entire agency, and particularly the Bureau of Air Traffic Management, has exhibited the greatest initiative and extended the most complete cooperation that could be expected.

We would like to commend certain key personnel that are responsible for this program, realizing at the same time that there have been numerous other people that put forth great effort. Mr. D.D.Thomas, Director of the Bureau of Air Traffic Management, of course has been the guiding influence. Mr. Charles Carmody, Chief of the Airspace Utilization Division, has consistently worked very closely with us on this problem. Mr. H. B. Helstrom, Chief of the Airspace Structure Branch, Mr. Edward Forbes, Chief of the Airway and Route Section, are the persons who have worked out the details on the structure and helped to insure that it was ready when required.

We are well aware, also, of the untiring efforts of Mr. R.E..Thomas, Chief of the Airspace Allocations Branch, and his staff, and well realize that the program could not have been completed as efficiently and rapidly as it has been without the splendid cooperation we received from the Bureau of Flight Standards and the Bureau of Facilities.

The efforts of your field personnel, particularly the many controllers who are manning remote GCI radar sites, at times under trying conditions, are not unrecognized and are sincerely appreciated.

In summary, we believe that this is the most outstanding example of a "crash program" being pushed through in an efficient and orderly manner. You and your entire organization are to be complimented.

Cordially,

/s/ S. G. Tipton S. G. Tipton

# AIR TRAFFIC MANAGEMENT DIVISION STAFF OFFICERS

