

# REACON

DECEMBER, 1959



FEDERAL AVIATION AGENCY  
AERONAUTICAL CENTER  
OKLAHOMA CITY

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Front Cover - Radar Antenna  
Bob Newkirk  
Back Cover - ANF Building #2  
Bob Newkirk



This issue of the Beacon offers these comments from Senator Mike Monroney. His "Point of View" is called

"Voice International"



"Two years ago, near the coast of Turkey, I flew off the Aircraft Carrier Franklin D. Roosevelt, bound for Rome, Italy.

"Our flight plan took us over Athens, Greece. From there we had to file a new flight plan on into Rome International Airport. From the flight deck of the "Cod" we were flying in, I listened to the pilot contact Air Traffic Controls at Athens, give his flight plan, and have it confirmed by the Athens Air Traffic Controller.

"With the only difference of a heavy Greek accent, it was the same as Tulsa Tower or anyone of the hundreds of FAA towers throughout the Nation.

"This brought home to me the world-wide importance of the FAA Aviation Center and its work in the field of making international aviation safer around the world. I realized that here, in my home town, the world is learning to fly on International Standards taught in the Oklahoma City Air Center. Only the Iron Curtain countries and Brazil, today, do not follow our FAA procedures which have worldwide acceptance and support. Standards carefully carried into practice through months of rigorous training are bringing about one-world as far as air traffic is concerned.

"In addition to the great contribution on international aviation safety, the Oklahoma City center is training good-will ambassadors at the same time. I have talked to dozens of visitors to foreign countries who tell me of the wonderful friends America now has in the field of aviation in more than 40 nations of the world. The hospitality, the friendly approach of co-workers in the field of aviation, the opening of our homes in Oklahoma to these foreign aviation students have won for us a place in their hearts and minds that moves with a chain-reaction of good-will for America and for the freedom for which we stand.

"More than 1500 foreign students have graduated through the Center and more Ambassadors of the Air are being turned out in each course.

"It's nice to know, that because of the Center, that in the airspace of the world, a common language is being spoken and that uniform air traffic rules are being obeyed."

A. S. "Mike" Monroney



**THIS IS THE NEW AIR NAVIGATION FACILITIES BUILDING, DEDICATED NOVEMBER 19, 1959. THE TWO-STORY BUILDING WILL BE THE CLASSROOM FOR 550 STUDENTS.**



**JARMAN CUTS RIBBON WITH HUTTON, STERLING, AND DRAPER ASSISTING.**



**THE SPECTATORS PRESENT FOR THE DEDICATION CEREMONIES. PICTURED FROM INSIDE BUILDING FOYER.**



## AERONAUTICAL CENTER DEDICATES NEW ANF BUILDING

At high noon on Thursday, November 19th, Congressman John Jarman, from Oklahoma's 5th District, cut the red ribbon draped across the doors of the new Air Navigation Facilities building Number Two at the Aeronautical Center.

First usage of the new \$1,533,000 building was through an Oklahoma City Chamber of Commerce board meeting, held in the building's cafeteria.

Present at the noontime ceremonies were Sheldon L. Stirling, city manager of Oklahoma City, who acted as Master of Ceremonies, David Phillips of the General Services Administration, Leland Gourley, representing Oklahoma's Governor Edmondson, General Thomas P. Gerrity, Commanding General of OCAMA, Brigadier General Maurice Marrs, Commanding General of Oklahoma's Air National Guard, General Carl I. Hutton, Director of Training for the FAA, and Stanley Draper, Director of the Chamber of Commerce.

After Representative John Jarman cut the ribbon, Sheldon Stirling, acting in behalf of the Oklahoma City Airport Trust, presented the keys of the two-story building to General Hutton and Aeronautical Center Director, Fred Lanter. Something over a hundred Chamber of Commerce Members were present for the ceremonies as well as other citizens and employees of the Center.

After the luncheon, guests were given a guided tour of the new Facilities Building.

In the building will be trained electronic engineers and technicians who install and maintain the radar and electronic navigational air equipment used by the FAA. In the labs will be such equipment as the airport surveillance radar. In

the lobby of the building a scan radar screen has been installed. Visitors can see positions of aircraft in flight within a one hundred mile radius of Will Rogers Field.

The color motif of this building, which contains 74,000 square feet of space, combines a pink brick, blue-green porcelain panels with stone and aluminum trim on the outside; inside, cream glazed tile in the corridors and dark red roman brick in the main lobby.

The new building has 24 classroom units, 18 laboratory rooms, and 3 roof-top laboratory platforms, 22 instructors offices, a student lounge and a cafeteria. When in full use, the building will handle about 550 students, who will spend from 12 to 20 weeks in Oklahoma City.

The building was started on December 1, 1958, and completed November 12th of this year - a total construction time of 11 and one half months.

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### NEW FAA SEAL

An official seal has been adopted by the FAA. The seal, symbolic of the air age, depicts a light green globe, on which is superimposed a gold four-pointed compass rose. A stylized gold wing is on the horizontal axis.





## FOUR SECTOR CONSOLE OF ENROUTE LABORATORY

Literally miles of wiring are being laid within the Air Traffic Control Building. Workmen are installing equipment in the new Air Route Traffic Control Laboratories, which will be utilized in conjunction with the new eight-week Air Route Control Course to be taught by AC-520 beginning January 4, 1960.

Bell Telephone Company is wiring these labs with the same interphone system that is used in the field. The only difference is that all telephones in the center lab terminate in a "remote room." The positions of operation in the "remote room" may be an airline company, an FAA Communications Station, control tower, or any other agency that would be doing business with an Air Route Traffic Control Center. Students manning positions in the remote room "feed" traffic information to the center lab while the students in the lab are learning how to control traffic.

Currently, for the 17-week International Class and the two-week Short Course, only two sector labs are being used. This means that only two students at a time get to demonstrate control ability. For the eight-week course the labs will have four sectors, thereby doubling the capacity of the labs.

In addition to the four control sectors, the labs will have four flight data positions, which is an important position for beginning air traffic control trainees. A high altitude sector has been added to teach methods necessary to control the increasing number of jet aircraft.

Since nearly all flight data information is received via teletypewriter in an actual center, teletypewriters are being installed in the new labs here to make the over-all operation of the labs as realistic as possible. These machines will be of the latest type and will give the student practice in a function of a center's operation that will possibly be part of his regular work on return to the field.

While in training for a journeyman controller, a trainee serves as an assistant controller, rotating through several positions in the center. In some centers, this includes teletypewriter positions as well as flight data positions. In the new labs, the student will be exposed to all the operating positions he will normally expect to work in any field facility.





### ANF WORKSHOP COMPLETED

November 17 marked the termination of an Instructional Evaluation Workshop conducted for Air Navigation Facilities Branch supervisory personnel by the Instructor Training and Educational Consultant Services Staff.

Under guidance of Neil A. Fox, Robert M. Beals, and E. H. Malone (AC-3.1) two major projects were accomplished during the 15-hour course: (1) preparation of guide lines for rating and evaluation of instruction; (2) revision of elements used in observing and evaluating instructor performance. This type of workshop is a non-recurring activity in that it was set up to achieve this particular goal.

Active participants who received certificates of achievement at the final session included ANF instructors Paul Welch, Ralph O'Neal, Fred Bright, William Starr, Ocial VanHoose, Sam Walker, Norman Buettner, Ernest Fairbank, Howard Gould, Robert Haworth, Max Jackson, Thom McDonald, Frank Castellucci, and James Bailey; also Dean Merilatt, Chief, Electro-Mechanics Unit and Robert Jensen, Chief, Tacan Unit.

A similar workshop was offered just a year ago for the purpose of initiating this program of instructional observation. . LF

### FUNDAMENTALS OF SUPERVISION

On November 15, 1959, 27 students had completed a correspondence course in "Fundamentals of Supervision."

The Management and Supervisory Training Staff of the Office of the Assistant to the Director for Training introduced this course last December. The initial class of 247 enrollees started on January 15, 1959.

The personalized conversational approach that exists between student and instructor which greatly supplements the course material is believed to be largely responsible for the success of the course. Consisting of fifteen basic lessons and written assignments, it has been designed to make supervisory training available to all FAA personnel who because of geographic location or for other valid reasons, would have difficulty participating in Resident Management Training Courses.

Enrollees are selected from lists of eligibles established and maintained in Proficiency Development Offices at Regional Headquarters. Another class of 170 is scheduled to begin December 15. Additional classes will be enrolled as resources permit. Members of the staff conducting this training are Herbert R. Richardson, James C. Monroe, O. D. Brooksher and Bill B. Werner, Chief.

...H. R.





## GEEIA CONVENES AT CENTER

The Ground Electronic Equipment Installations Agency for the Air Force ---- better known as GEEIA ---- met with members of the Federal Aviation Agency Bureau of Facilities this last month at the Aeronautical Center.

The purpose of this third meeting ---- furtherance of "Project Friendship". That's the plan to integrate a number of military facilities into the FAA Airway System.



Shown in the picture are the 30 who attended this GEEIA meeting. They are: Col. Getz, T. N. Wiley, Col. Black, Ralph Rea, Garrison Costar, Peter Caporale, A. W. Glass, Rex Merilatt, C. M. Hammersla, R. W. Brown, R. Smith, Maj. R. B. Crane, W. King, C. H. Taylor, Wm. Howe, R. L. Hoffer, John Ogas, Earl Hon, Geo. Haroules, I. D. Goldman, L. H. Hayden, E. Nichols, L. B. Blair, Fritz Villines, Edward Carifio, Lt. Col. D. Neill, J. S. Turner, W. L. Lehman, Phillip Carney, C. B. Kohli, C. E. Wise, Ron Pulling, W. D. Caudell, Maj. Godfrey, and Clark B. Affleck.



## INDUSTRIALISTS CHECK CENTER

The group of out-of-state industrialists, in the picture, recently got a whirlwind tour of the Federal Aviation Agency Aeronautical Center as part of a look at what Oklahomans can do.

Representing some 30 industries in 11 states, the group was particularly interested in the way the FAA Center facilities are provided; commented on the fact that the buildings are being financed by an authority established under Oklahoma City's government.

Center Director Fred M. Lanter projected the facility's future for the group, with a glimpse of the expected personnel increase at the Center.

The industrialists, as one, told Aeronautical Center authorities that they were greatly impressed with the community spirit shown from both the city and the Center's side of the slate.





## DISTINGUISHED "STUDENTS" IN ATC COURSE

Recent participants in the ATC Short Course were Brig. General George S. Cassady and Mrs. Donald A. Quarles. General Cassady is Deputy Director of the Bureau of Air Traffic Management. Prior to joining FAA, he was Deputy Commander of the Eastern Transport Air Force of the Military Air Transport Service with headquarters at McGuire AFB, New Jersey. General Cassady's interest in aviation dates back to his early days in Gainesville, Texas, where he and his brother operated a flying service prior to entering military service. His brother, Brig. General Emmitt B. Cassady, is Director of Personnel for the Air Materiel Command at Wright-Patterson AFB.

General Cassady graduated from the Air Force flying school at Randolph Field in 1932 and later flew for United Airlines until 1938 when he joined the old Bureau

of Air Commerce as Chief Air Carrier Inspector of the Western Region. He later became Chief of the Air Carrier Operations Branch of CAA in Washington where he remained until he returned to active military service in 1942. Gen. Cassady has logged over 10,000 hours of flying which should certainly be an asset to the Bureau of Air Traffic Mgmt.

Mrs. Quarles is now assigned to the Office of Public Affairs in Washington. Her participation in this ATC course made it possible for her and General Cassady to hold a reunion. The last time the two met was in Hawaii when Mrs. Quarles and her late husband, the former Under-Secretary of the Air Force were being briefed on the Air Force activities in Hawaii by General Cassady.

Mrs. Quarles is also a "seasoned" pilot, having received her private pilot's license

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in 1958. She is also a 2nd Lieutenant in the Washington, D. C. Wing of the Civil Air Patrol. Mrs. Quarles proudly boasts about her "co-pilot" Zippy. Zippy is her pet daschshund who has his own seat belt and loves to fly as much as she does.

Both Mrs. Quarles and General Cassady attended the ATC Short Course to gain a better understanding of the problems in our ever expanding air traffic control system. Mrs. Quarles has been studying the problems of jet noise on and near our metropolitan airports and will be able to better understand the complexity of these problems by learning more about the work of the Air Traffic Controller.

General Cassady wanted to get a first-hand look at our training facilities and techniques and reported he was highly impressed with what he saw.

We, in ATC, deem it a great pleasure to have such distinguished participants in our Short Course and hope that both General Cassady and Mrs. Quarles will pay us many visits in the near future.

----- ...FT

### RECRUITING FLAG FLIES AGAIN AT A N F BRANCH

With the receipt of the FY 1960 program the Air Navigation Facilities Branch again is looking for new instructions. The staff of the Branch will be increased by 52 instructor positions, half of them in the Communications Equipment school and the remaining portion divided between the Distance Aids Section and Directed Study. In addition, there are also vacancies in the ILS/VOR and Radar Sections.

Anyone qualified and interested in a position both challenging and remanding should consider bidding on these instructor vacancies. Work at the Center offers a find opportunity for professional development.



### CHAMBER OF COMMERCE HONORS LANTER

The highest award the Oklahoma City Chamber of Commerce can offer was given to the FAA Aeronautical Center Director, Fred M. Lanter on Thursday, November 5th.

Lanter received a life membership on the board of directors of the chamber... an award usually reserved for past presidents of the chamber of commerce.

Lanter, who came to the Aeronautical Center in 1947 when the organization was small and housed in frame barracks... was hailed at the Thursday board meeting as "a man whose dreams have not yet come true."

Even though he has seen the Aeronautical center grow into a 20 million dollar establishment, he is still looking toward a bigger future.





### WALTER HILL RECEIVES UF TROPHY FROM DIRECTOR FRED LANTER

Top honors in this year's United Fund Campaign drive went to the Air Navigation Facilities branch. Federal Airways Standardization Division Chief Walter Hill accepted the trophy for the branch. Charles Mueller's branch reached way above the quota of 1659 dollars set at the start of the drive. United Fund Committee Chairman Leon Daugherty and his workers turned in \$1938, putting the percentage at 117 of the quota.

Other areas, too, went above the 100 percent mark. The director's office, Technical Services, Budget and Finance and Personnel turned in a combined total of 113 percent. Structural Material Branch reached 105 percent; Supply totaled 101 percent and FIFO-H reached an even 100 percent of quota.

All UF committee workers and Center employees performed an excellent job, bringing the overall total for the Aeronautical Center to 96.4 percent of the 16-thousand dollar goal. The final amount turned in to the United Fund was \$15,414.69.

Eighty-three of the United Fund workers received Jiminy Cricket "Oscars" in a Headquarters Auditorium meeting. Deputy director "Bud" Olson, co-chairman this year for the Federal services in the Oklahoma City area, spoke of the excellent job of giving; praised the campaign workers for their efforts.

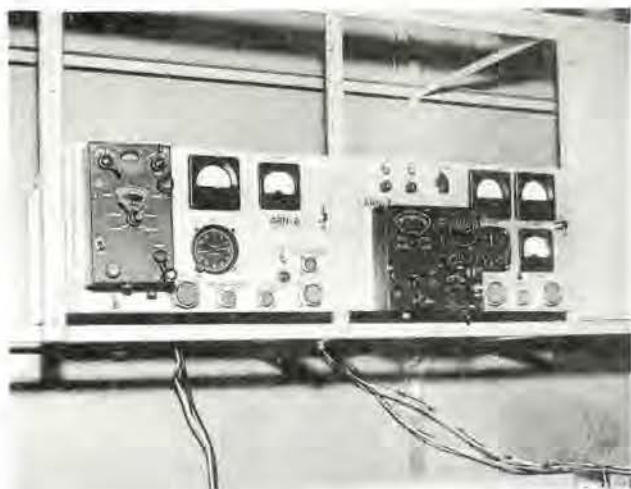
### UNITED FUND PROVES WORTH TO CENTER FAMILY

This quick news note to indicate the worthwhile effort of giving to the United Fund. Two of the 35 agencies which receive a portion of the fund money contributed to an Aeronautical Center Family this last month. The family lost their home furniture and clothing in a fire. Both the Salvation Army and the Red Cross gave assistance. The Red Cross, for one, gave the family clothing, furniture and some medical help the Salvation Army gave new blankets, mattresses and clothing.

### PROGRESS LIKENED TO THE TALKING DOG

The present situation of explosive growth and temporary confusion in FAA reminds us of the comment by a CAA technician long ago while evaluating a dubious performance test.

"It's not that the dog talks so well that's surprising - it's that he talks at all!"



### STANDARDIZED SHOP MOCK-UPS FOR ARN-6 & ARN-7

Standardization is the "Big Word" in FAA. In the shops, as well as in the air, standardization is imperative for optimum efficiency. Designed and prototyped at the Aeronautical Center by Facilities Flight Inspection Branch engineers, the shop mock-ups are being constructed by Custom Electronics Manufacturing Company, Tulsa. With these, each regional avionics shop will be able to apply standardized test and calibration techniques to ARN-6, ARN-7, DFA-70, ILS/VOR, and Glide Slope equipments.

Under the direction of Bob Ledbetter and spark-plugged by "Chick" Longman, the mock-ups were designed and "debugged" by a group of engineers including Ed Murta, Bob Kraybill, and Carolyn Nickson. Yes, you read it right--one of the engineers is a lady!

Two types of the new mock-ups are in use in the Line Maintenance Section at the Aeronautical Center. A total of forty-four have been delivered by the contractor. The remainder are expected to be on hand by February 1.

### TRAINING CORNER

The Proficiency Development Branch of the Personnel Division has as its mission the planning, developing and carrying out of a training program to meet the needs of Aeronautical Center employees at all occupational levels.

A training program to accomplish this mission must necessarily be wide in scope. Further, in the case of Government employees, it must follow the controls established by Public Law 85-507, commonly known as the Government Employees Training Act. The approach to the problem as outlined by the Training Act is in three categories:

- (1) Self-education - to encourage and offer guidance to employees who are striving for self-improvement.
- (2) Government-sponsored training - to aid employees in the performance of official duties.
- (3) Non-Government training - to meet a training need that is beyond our own resources or when it is clearly that most economical means of meeting the need.

Each of these areas will be the subject of discussion in succeeding issues of the Beacon.

Although, at the moment, training needs obviously far outweigh our resources to provide these needs, courses which have been provided have demonstrated high interest and excellent cooperation. The editor of the Beacon suggests a continuation of this "Training Corner" as a means of explaining, advertising, campaigning or what you will, our Employee Development Training Program. In the future then, we will attempt to come up with items of interest in the field of employee development and will always be open to suggestions.



## AERONAUTICAL CENTER MAN HAS GLOBAL MISSION



Darwin T. Maurer, the recently appointed International Liaison Officer at the Aeronautical Center, firmly believes he has the most interesting and challenging job in FAA. His associates are coming to know him as the companion, guide, and father confessor to the 50 to 75 International students representing more than 30 countries usually enrolled in various classes at the Oklahoma City Center. In addition, he acts as host and guide to officials and other VIP's who visit the Center from foreign countries to learn in a few days all they can about the operations there. While these duties keep him more than reasonably busy 8:00 to 5:00, 5 days a week, he had an inspiration which has resulted in an almost 'round-the-clock operation, 7 days a week.

### DEVELOPS AMBASSADORS

Maurer began to look upon these students from abroad as so many ambassadors of the American way of life to their respective countries. In addition to the message they could carry back to their families,

friends, and business associates, he could envisage the good they could do while in Oklahoma City, giving the local citizenry first-hand information about their homelands and the general philosophy of their people.

The kick-off to this inspiration came from letters received from former students, all having the same trend. The thing they remembered most about the United States was the treatment they received from our citizens in visits to homes, churches, and to clubs. Maurer has already established numerous contacts with various local clubs, churches, schools, and individuals. For instance, the entire group of international students accompanied Mr. Maurer to a meeting of the Kiwanis Club, as special guests of the club.

Darwin's phone hasn't quit ringing since that meeting. The club members are eager to entertain the students, singly and in small groups, in their homes -- along with the family or to meet their friends -- at backyard barbecues, swimming parties, trips to the family ranch or church and home-for-dinner. In addition, various businessmen have picked up the tab for the entire group to attend ball games, symphony concerts and other local entertainment.

### NEVER AN IDLE MOMENT

So, it can be understood why the Aeronautical Center's International Liaison Officer is a busy and extremely versatile man. In a given day he may be arranging living quarters and transportation for a new arrival, acquainting him with the Center and introducing him to his instructors; consoling a student who feels it has been far too long since his last letter from the family back home and assisting in locating mail that might not have caught up with him; arranging subsistence financing for one whose checks have been delayed; helping another international family buy second-hand furniture for their several-months'

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stay; finding medical assistance for a student and his family; or assisting a Major General or a high-ranking foreign official to make the most profitable use of his limited time to tour the Center. All of this is in addition to his self-imposed task of improving international cultural relations.

Maurer came to this job at the Center from the Office of International Coordination in Washington. Before that, he was an Airways Operations Specialist in the Air Traffic Control Branch at the Aeronautical Center, and an Air Route Traffic Controller in Region 3. His FAA employment totals some 15 years.

During Fiscal Year 1959, the Aeronautical Center had 240 students and visitors representing 41 countries.

## RADAR TRAINING FACILITY GETS HI-POWER UNIT

Work began early in November to install the hi-power amplatron unit in the ARSR-1 Long Range Radar training facility at the Air Navigation Facilities Branch. The Amplatron Microwave Amplifier manufactured by the Raytheon Company increases the peak transmitted power of the radar system from 500 kilowatts to over 4 million watts.

The effect of the increased power is expected to increase the maximum range for a given aircraft by 50 per cent to 75 per cent assuming that the plane has sufficient altitude to be within the antenna pattern.

Because of the extensive work by Raytheon engineers in the ARSR-1 equipment room the Center has cancelled ARSR training for Radar Option Specialty classes until acceptance tests are completed in January. The amplatron portion of the ARSR-1 will be included in radar training classes about March 1, 1960. The amplatron equipment now being installed is the first production unit assembled at the Raytheon plant.

HAPPY  
NEW YEAR  
7 LONG WEEKENDS IN '60

Federal employees can thank their "Lucky 7" during 1960 with seven out of eight legal holidays bringing three-day weekends. Only the traditional Thursday for Thanksgiving prevents a 1.000 percentage of eight for eight.

Legal holidays looming ahead in 1960 are Jan. 1, Feb. 22, May 30, July 4, Sept. 5, Nov. 11, Nov. 24, and Dec 25. Of these, four are Mondays, two are Fridays, one Sunday, and Thanksgiving, Thursday.

1960		
Holidays, Holy Days and Commemorative Days	JANUARY	JULY
Jan. 1 New Year's Day	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31
Feb. 12 Lincoln's Birthday	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31
Feb. 14 St. Valentine's Day	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
Feb. 22 Washington's Birthday	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
Mar. 2 Ash Wednesday	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
Mar. 17 St. Patrick's Day	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
Apr. 10 Palm Sunday	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
Apr. 12 Jewish Passover	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
Apr. 15 Good Friday	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
Apr. 17 Easter Sunday	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
May 8 Mother's Day	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
May 21 Armed Forces Day	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
May 30 Memorial Day	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
Jun. 12 Children's Day	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
Jun. 12 Trinity Sunday	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
Jun. 14 Flag Day	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
Jun. 19 Father's Day	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
Jul. 4 Independence Day	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
Sep. 5 Labor Day	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
Oct. 17 Citizenship Day	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
Oct. 22 Jewish New Year	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
Oct. 1 Jewish Yom Kippur	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
Oct. 12 Columbus Day	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
Oct. 24 United Nations Day	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
Oct. 31 Halloween	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
Nov. 8 Election Day	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
Nov. 11 Veterans Day	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
Nov. 24 Thanksgiving Day	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
Nov. 27 First Sunday of Advent	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
Dec. 25 Christmas Day	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30



## TACAN INSTALLS FIRST TMC'S

Two new "Test-Monitor-and Control" (TMC) equipments have just recently been installed in the Tacan laboratory building. These equipments are an integral part of the Tacan ground station and consist of dual monitors, several items of test equipment, and the control and transfer equipment.

The TMC, as it is commonly called, contains more than 600 vacuum tubes and 400 diodes. The complexity of the equipment is amplified considerably due to the fact that it monitors eleven parameters of the Tacan signal. The TMC is integrated with dual Tacan

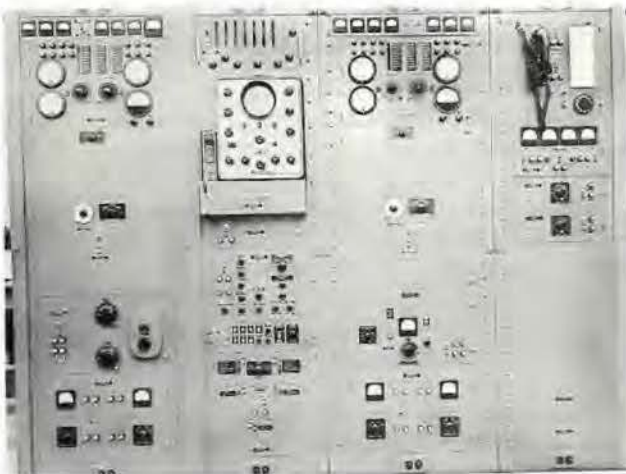


TACAN GROUND STATION

transponders to comprise a complete Tacan installation. The test equipment, consisting of synchroscope, pulse counter, azimuth test unit, azimuth calibrator, spectrum analyzer, RF signal generator, power bridge, IF signal generator, and test pulse generator are rack mounted to facilitate ready maintenance of both the monitors and transponders.

The staff of the TMC unit, under the supervision of W. C. Williams, is to be commended for the expeditious implementation of training for the TMC equipment. The problem of TMC training has been amplified by two factors: (1) integration with existing transponder training and (2) meeting present course length restrictions without jeopardizing either Tacan or TMC training.

An indication of the Tacan training requirements might be imagined from the pictures of the complete dual installation and the separate view of just the TMC equipment.



TACAN TEST-MONITOR-  
CONTROL EQUIPMENT

## WATCH "OKLAHOMA TODAY"

"Oklahoma Today," the Official State Magazine, will carry a complete picture-story of the Oklahoma City Aeronautical Center in its winter issue.

Editor David Loye has been working closely with Center Officials during the past few weeks to get pictures and background for the story. Since the quarterly-published magazine has a circulation of more than 75,000 in all 50 States and Foreign Countries, it should get the story of the Center into many new areas.

The winter issue is due on the news-stands December 15th. Get a copy to show to your friends and neighbors.

## FAA SPONSORS CARDIOGRAPHY RESEARCH

The Federal Aviation Agency has awarded a contract to John Hopkins Hospital in Baltimore, for research studies in cardiography which could give aviation medicine measurements of heart damage it now must assess categorically.

A \$15,000 one-year contract, renewable each year, is aimed at development of a "distortion-free ballistocardiography system." It would improve detection of disease-caused heart damage, and for the first time measure the effects of cardiovascular deterioration with the aging of the person.

On October 20, the FAA put into effect the CAR amendments setting out the policies of refusing medical certificates to airmen with a history or diagnosis of heart disease... "which the Civil Air Surgeon finds may reasonably be expected to lead to further trouble. The advances sought will make possible more discriminating medical standards. ..MW



Shown with Mr. Lanter are Mr. Norman Walker (left), Civil Air Attache from Great Britain, and Mr. Kryke-Smith (right), Chief Air Traffic Control Officer, Ministry of Transport and Civil Aviation in the United Kingdom.

## ATC INSPECTED BY BRITISH

A close look at American methods of handling air traffic was given two British Officials this last month. Norman Walker, Great Britain's Civil Air Attache, and Mr. Kryke-Smith of the Ministry of Transport and Civil Aviation inspected the FAA Aeronautical Center in Oklahoma City.

They concentrated, in the main, on the problems of controlling Air Traffic. Both men expressed great interest in the Center's training facilities for future air traffic controllers; were impressed with the steps made to handle the growth of future air traffic.





### SCHMITT NAMED OUTSTANDING MANAGER

Director Fred Lanter congratulates Arthur Schmitt on his selection as outstanding Manager.

On Thursday, November 12, Arthur Schmitt, chief, Directed Studies Section of ANF, was named "Outstanding Manager and received the Aeronautical Center Employees' Association Quarterly Award from Fred Lanter.

Art Schmitt has been active in boosting the educational, cultural and recreational activities of the Center.

In addition to this award....Director Lanter gave certificates and checks to employees for seven suggestions. The employees receiving the certificates and checks were Glenn R. Little, \$50; Robert L. Combs, \$35; Wesley L. Chesnut, \$15; Richard M. Morrow, \$20; Glenn R. Little, \$10; Charles L. Farrow, \$20; George A. Simms, \$50. Gerald Wakefield received a \$200 check for Sustained Superior Performance.

Uncle Sam is reaping huge dividends from the hard thinking and superior work of employees. The Civil Service Commission reports the government

has saved 558 million dollars as a result of employee suggestions and superior work during the 6 years since the program was started in December, 1954. Something over 40 million dollars had been paid out in cash to employees, about one dollar for every 18 saved. Federal agencies adopted 358-thousand beneficial suggestions out of one-million, 400-thousand turned in. That's one out of every four. Benefits to taxpayers amount to 317 million dollars.

### WILLIAM A. JUMP MEMORIAL AWARD DUE

Nominations are being received now for the annual William A. Jump Memorial award, given in recognition of outstanding service in the field of public administration.

This eleventh annual award gives special recognition and encouragement for sustained interest, growth, and development in the field of public administration. A certificate of merit and a gold key go with the award.

Any employee of the Government who has not reached the 37th birthday as of December 31st shall be eligible to compete for the 1960 award. The employee's performance over a long period of time must demonstrate unusual competence and interest in public administration, endowment for leadership, creative thinking and enlightened public service.

You or your fellow employee at the Center may be a nominee for the Jump Memorial Award.

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**- THE ROAD TO EXTRA CASH -  
A MONEY-SAVING SUGGESTION !!**



## EMERGENCY PLANS AND YOU

Possibly we are all aware that our nation must and does maintain a defense force capable of winning a thermonuclear war. Too, we are probably aware of the tremendous economic cost required for defense both in terms of our tax dollar and the heavy drain on our natural resources. When we consider the personal safety of our civilian populace, however, most of us are greatly influenced by traditional concepts of many hundreds of years. Previously, these concepts were valid. They worked. We could always depend on them to give us the time required to prepare for and ultimately win any conflict involving our nation. Let's look at some of these concepts which we now must question:

1. Our nation is separated from our potential enemies by large land and sea areas which must be traveled in order to launch an attack on the United States.
2. Armed conflict between large military forces is necessary to resolve major differences in national objectives when negotiations fail.
3. There will be distinctly separate phases of the conflict:
  - a. The initial blow.
  - b. The build up of forces.
  - c. The decisive blow.
  - d. Mopping-up actions.
  - e. Victory.
4. The war will not likely be fought within the boundaries of the United States.
5. Our nation is intellectually, economically and industrially superior to other nations.
6. Our democratic form of government represents the ultimate among the various forms of government. Other forms are doomed to mediocrity, internal strife and failure.
7. The United States will emerge victorious.

Some of these concepts were supported by fact. Others were manifestations of a strong proud nation -- generally accepted

but not necessarily true. Today, all must be critically reevaluated.

For some time following our development and application of nuclear fission in a military weapon at Nagasaki in 1945 we were permitted to continue in these concepts. Some were in fact temporarily strengthened but at the same time they were doomed to serious challenge. The theory of the tremendous energy of the atomic bomb was known to scientists of many nations. Ultimate possession of this capability by all major nations was certain. It would then be possible for a single nation to strike a decisive blow with little or no warning. It followed that the nation striking the first thermonuclear blow might well have struck the decisive blow.

Recognizing our vulnerability and by national policy being denied the advantage of striking the first blow the United States has prepared its military defense to counter any act of aggression by a decisively stronger action. Of necessity we must be prepared to accept serious physical damage to our nation from the initial act of aggression.

Perhaps the most serious non-military question confronting our nation today is concerned with the matter of where our civilian population will be at the time the aggressor blow is struck including the short period immediately thereafter. The answer to this question will determine whether or not we, in victory, have sustained mortal injury.

We as civilians should concentrate on the matter of shelter for our families when the aggressor strikes. The Federal Government has charged the Office of Civil and Defense Mobilization as well as all federal agencies with responsibility for planning local actions for the protection of the civilian population. A National Plan is under development upon which State and community government will base local actions. These plans are predicated on the continuation of the family group as the basic survival unit and major actions

(cont'd on next page)



for family survival will be the responsibility of heads of families.

We as federal employees at the Aeronautical Center have two major responsibilities. One to our agency which will play a substantial role in the defense of our nation and the other to our immediate family for their safety. Local government and Aeronautical Center emergency plans under development will not create a conflict of interest within these responsibilities.

Become familiar with your local community safety. Within these plans develop your own plans for the protection of your family. The Aeronautical Center will announce emergency plans in the near future which will recognize family and community responsibilities and will provide for the continued operation of the Aeronautical Center during periods of national emergencies.

W. H. B.

## CENTER TO GET AIRMAN RECORDS

The Federal Aviation Agency examination and record division will be moved to the Aeronautical Center in the near future. The official announcement of the move came in the first week of December.

The examination and record division prepares and administers all knowledge examinations for civilian airman and ground instructors. The Division also registers all civil aircraft and airmen and issues airmen certificates. There are 112 employees involved in this transfer as well as a great number of records.

Federal Aviation Agency Headquarters in Washington says the move is in line with the plans of FAA Administrator E. R. Quesada to keep in Washington only those persons involved in overall planning, Director and Co-Ordination of the agency.



## BLOOD AND OPEN HEART SURGERY

Open Heart surgery, which calls for a great amount of whole blood, was performed on an Aeronautical Center employee...Harvey Roach, AC-202, December 7, 1959. Through the efforts of Mrs. Helen Pacific, Nurse in the First Aid Station, nearly 30 pints of blood were obtained from Center employees and students for this delicate operation.

Perhaps several of you are wondering why so much blood is needed. First, it takes from 15 to 30 pints of blood for each operation. The heart-lung pump must be primed and it requires a large amount of blood to function.

There must be a safe quantity of blood on hand to nourish the patient's body during the operation. Without ample blood to the brain and other tissues, permanent damage could result. Blood collected and stored in advance will not do. Often, the patient's entire blood volume is replaced. For this reason, the blood must be fresh, drawn into a special container and preserved with a special anticoagulant.

Open heart surgery was possible only after years of research which led to development of heart-lung machines, pumps which do the work of the patient's own heart while the surgeons operate on a relatively quiet and bloodless organ.

...J. S.

## PERSONNEL-LY SPEAKING !

### REORGANIZATION

A reorganization within the Personnel Division during November changes a lot of things, particularly for the people in Personnel, I guess. The changes are made to get us in better shape to service the "new look", reorganized Aeronautical Center.

In a report to the House Sub-Committee on Manpower Utilization, J. Meisel, Chief of the Headquarters Personnel Division, described the change as setting up in effect a small personnel office for each of the three main kinds of work we do at the AC. This seems a good way to describe it.

Until now, the technical people in personnel have been specialists, placement officers, and position classifiers. When a question was asked, we first had to see who was qualified to answer it. When the question involved both placement and classification, we had to call a meeting.

The new organization is along what we call "generalist" lines. We have set up three "Service Branches." Each Branch will classify the jobs, run the placement and promotion system, and work with individual employee matters, in part of the Aeronautical Center. Marion Schug and Margo Pickens have the Service Branch for School and Administrative functions, Lucille Taylor and Jim Walton have Material functions, and Charles Head and Maurice Hall, the Aircraft-Avionics group.

These three Branches will be helped by specialized groups. Bill Shelton's Board of Civil Service Examiners which does all recruiting of people from outside FAA; Paul Romanello, who will work with Center-wide position classification matters, Rus Myers as Chief of our Proficiency Development Branch will continue promoting and developing training and self-improvement plans; Mark Weaver,

as Personnel Relations Branch Chief, will work with employee groups, employee information programs, and community relations; Daisy Dovell will continue to run our Records and Processing Branch where those pieces of paper so important to all of us are written and recorded; finally, Jim Ryan will still head up our Student Relations Branch, which tries to help make life as a student at the AC a little more attractive.

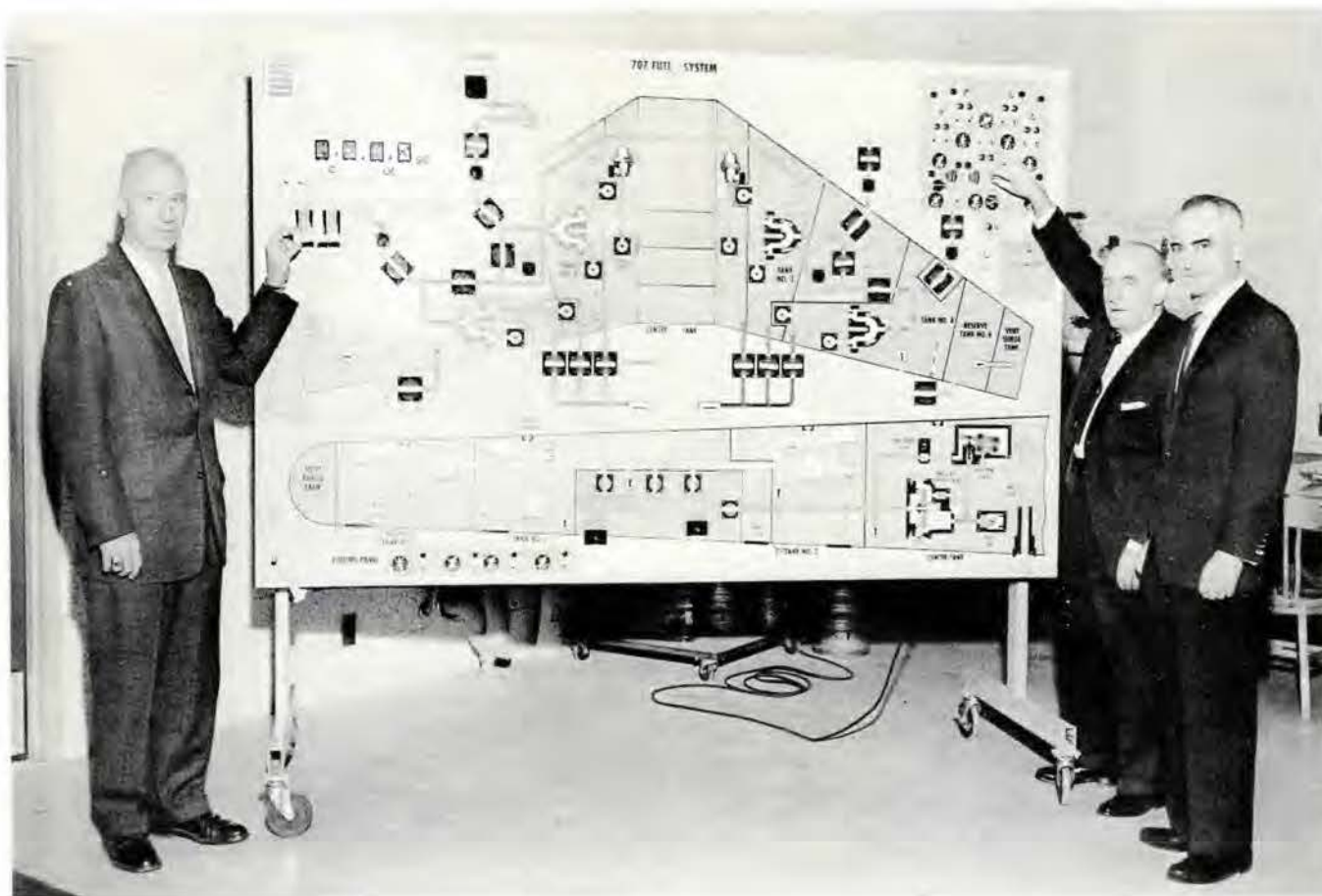
You can help us a great deal in making this new organization plan pay off just by knowing what we are trying to do. If, for example, you need to talk to someone in Personnel, the first place to go is to the Service Branch that serves your organization. They will either work out the matter for you or send you to the proper person.

If you want more detailed information, Aeronautical Center Administrative Order 1-5, revised 11-9-59, gives a complete picture of our "new look."

Just a couple of other ideas: First, while we in the Personnel Office want you never to be reluctant to come in to talk to us about anything at any time, we hope you'll talk first with your supervisor. Very often he has or can easily get the information you want or need. If this doesn't get the job done, come on over, your Service Branch will be glad to see you.

Several outfits in FAA have set out to run question and answer type columns in publications like the Beacon. They haven't seemed to work out; no one writes in asking questions for us "experts" to answer. Because of this, we aren't going to try a "question box." We'll get in the Beacon news items about Personnel matters that concern all or a lot of us. But, if there are specific matters, rules, laws, or practices you'd like to have explained or discussed in the Beacon, let me or Mark Weaver know, and we'll get something in on it if it seems to be of pretty general interest.





On extreme right, General Carl I. Hutton, Director of Training, FAA, with L. E. Shedenhelm, Chief, Aircraft Branch, and, on the left, Warren W. Smith, Chief, Flight Operations and Airworthiness Division.

## BOEING 707 JET TRANSPORT FUEL SYSTEM SIMULATOR

The animated backlighted panel faithfully performs tank to engine, engine to center section manifold, automatic sequencing from manifold to tank to engine (if neglected), fire control, engine starting, fuel dumping to landing weight, and many other complex functions on the 707. The display on the bottom of the simulator panel permits demonstration of pre-fueling system check procedures to avoid damage to the system. Pre-fueling rates up to 1200 gallons per minute through four 2 1/2-inch hose connections is a far

cry from refueling from fuel drums and 5-gallon cans experienced on early aircraft by the men in the photograph.

Efficient "fuel management" is imperative on the jet transport due to the shifting center of gravity on a swept wing aircraft and the high fuel consumption of the four engines which averages approximately 2300 gallons of kerosene per hour. The simulator animation and vari-colored lighting is controlled by the instructor; permits ready visualization and complete understanding of the many functions in flight by all members of the class from a distance of 20 to 30 feet.

(Continued next page)

A Boeing 707 intercontinental tank system has a capacity of 23,291 gallons of kerosene! Why kerosene? It's cheaper per gallon, gives greater range and eliminates the .02-cent Federal Tax (temporarily) on JP-4 gasoline-kerosene turbine fuels. To fully comprehend the capacity of this "flying fuel tank," let's imagine it carries gasoline we use in our car. If you drive 12,000 miles per year and get 15 miles per gallon, one filling would last you 29 years!

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### DAUGHERTY LEAVES ANF BRANCH

LEON DAUGHERTY, who for the past 16 months has served as Technical Assistant to Branch Chief C.W. Mueller, transferred November 30 to the position of Planning Unit Chief in the Facilities Section of the Washington Training Division. In this position, Daugherty will still be closely associated with affairs of the Center's ANF Branch training program.

Mr. Mueller, in making a farewell presentation before many of Daugherty's friends and associates, expressed appreciation for his fine work on a large number of special projects associated with expansion of the Branch training facilities.

Named by Mr. Mueller to replace Daugherty as Technical Assistant is Dan Fritz, a Radar Unit Chief, and formerly of Region 5 at Anchorage.

Daugherty came to the Branch in Jan., 1956, from the Region 4 station at Boise, Idaho. He first served as Localizer instructor, then as a Chief Instructor before becoming Technical Assistant in August, 1958.



Left to right, front: L. E. Murphy, Audit Mgr., C. F. Demo, W. S. Schipper  
Back: O. G. Abston, J. L. Boyd, Auditor-in-Charge, C. E. Sheets

### GAO TEAM HERE FOR ON-SITE AUDIT

These gentlemen are here at the Aeronautical Center for a scheduled on-site audit which comprises all operations and is not limited to just an audit of Accounting. Eventually the team will consist of nine members.

The United States General Accounting Office is a nation wide organization with headquarters located in Washington, D. C. It has Regional offices in 19 major cities in the United States and offices in Dayton, Ohio, in Europe, and the Far East. Its activities are directed by the Comptroller General of the United States. It is a part of the legislative branch of the Federal Government and is responsible solely to the Congress.

The office reviews the operations and activities of executive, legislative and judicial agencies and reports its findings to Congress and the agencies. The Congress, in its investigative activities and in the formulation of legislation, relies on the reports of the General Accounting Office.



## B E A C O N

William R. (Dick) Parks, ATC instructor, recently left the Aeronautical Center to become Resident Inspector at Eglin AFB in Crestview, Florida. Dick came out of retirement to accept his position as instructor. Prior to his retirement in 1956, he spent 10 years in the 2nd Regional Office in Fort Worth. Dick also had more years than he will admit in various Air Route Traffic Control Centers throughout the U. S.

Dick has created a vacancy that will be difficult to fill and he will be missed by all of us here in AC-520.

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Three ATC instructors are currently on field duty engaged in refresher training. Each instructor is required to return to the field for two weeks each year to keep abreast of current operating practices. H. M. (Lee) Hansley is taking his refresher training at Miami, Florida, where he worked prior to coming to Oklahoma City. (Lucky man - - BRRRRR!). Gerald M. Welch returned to his former facility at Cleveland, Ohio, for his training and Michael J. Ollis is obtaining his refresher training at his former facility in New York City.

Paul Arnold and Frank Fitzgerald recently returned from their two weeks training. Paul went back to his "native country," (Texas), and received his training at the Waco Tower. Frank spent his time in the Tulsa Tower not far from here.

Paul Herriot is currently on a special assignment to the Central Altitude Reservation Facility in Kansas City, Missouri, and the Strategic Air Command Headquarters in Omaha, Nebraska, for the purpose of standardizing High Altitude control procedures instruction at the Aeronautical Center.

Perry S. Bolyard, Chief, AC-520 and William J. Berkley, ATC instructor, spent the week of November 16th in

## N E W S

Washington where they participated in the presentation of a paper by the Cornell Aeronautical Laboratory on the development of a VFR Air Traffic Simulator. Having long recognized the need for a device with which controllers may be trained more effectively in the art of VFR Controlmanship, Bill has been working on an idea he had to develop such a device. With the resources and experience of the Cornell Laboratories coupled with Bill's technological experience in Air Traffic Control, they have engineered what may be the answer to our needs.

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The ATC School is happy to welcome our new class of International Students which began their training October 26. There are 17 students representing the countries of Ecuador, Afghanistan, Korea, Thailand, Turkey, Honduras, Ethiopia, and Indonesia.

These students are deep in the study of the FAA Air Traffic Control system, learning the many procedures necessary to effectively control the air traffic, the rules governing the operation of aircraft in the U. S. and the functions of our air navigation aids which make up the complex airways in our system. Next week, they will begin training in our ATC Labs where they will learn to apply the procedures to the control of simulated air traffic.

They have also been enjoying some very interesting "extra-curricular" activities in Oklahoma City. On November 8, they attended the YWCA International Fellowship Day activities which gave them an opportunity to meet and visit with some of their fellow countrymen who are attending other universities in the Oklahoma City area. Students representing 30 countries came from Oklahoma University, Oklahoma City University, Oklahoma State University as well as the FAA Aeronautical Center.

Saturday, November 21, they enjoyed an



exciting day at the football game between Oklahoma University and Iowa State University. This, of course, was the first time they had ever watched a football game played as it is played in America. They thought it was pretty rough but exciting.

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At the request of Personnel and Training, two instructors from AC-520 were detailed for sixty days to NAFEC. Ronald Bereman and Willard Bethel were assigned the task of developing course material, and a training course for Data Processing Central.

In addition to the writing and technical research involved, it was necessary for the team to attend the General Precision Indoctrination course, visit several GPL Laboratories at various locations, and coordinate all work with BRAD in Washington. Walter Zuhn from ANF at the Aeronautical Center was of invaluable assistance when knotty technical problems arose.

The final result of the project was Air Traffic Control Data Processing Central Manual #13. This manual, still in the development stage, will be the basis for all future training in DPC when finalized.

## CURRENT TECHNICAL PROJECTS IN FMD

**TELETYPE.** A Dual Tone Keyer, FA-3601 is being developed at FMD and given final checks. This Keyer utilizes semi-conductor devices instead of vacuum tubes in the conventional circuitry. The FA-3601 Dual Tone Keyer was designed to provide a means for keying the steady state output of an audio frequency oscillator in accordance with the incoming radio teletype keying signals used in teletype communications.

**PRECISION RADAR.** Experiments are being performed to determine a cure for false targets occurring under certain conditions with Precision Radar. These false targets are thought to result from cross polarization components.



Left to right: R. L. Jones, Mrs. Nell Knoetgen, Beatrice Nichols, and Mr. Norris, of the Lions Club.

## EMPLOYEES HEAR ABOUT EYE BANK

The Center employees association heard about giving the gift of sight to the living early this month...the story of the Oklahoma Eye Bank.

Mrs. Nell Knoetgen, secretary of the blind committee, and R. L. Jones spoke to the group. The Oklahoma Lions' Clubs are sponsoring the Eye Bank.

It was explained to the Center association meeting that 117 formerly blind persons now can see because some one person donated an eye; that pledge cards for the donation of eyes after death have been signed by some ten thousand persons in the Oklahoma area. Figures were quoted to emphasize that nearly five hundred blind persons in the state could now see if more cornea transplants could have been performed. A cornea must be removed from the eye of the deceased person within 5 hours after death; transplant to the blind person must take place within 48 hours.

Pledge cards are available at the Center Headquarters' first aid room for those who wish to donate their eyes after death.

....M. W.





Standing - Left to right: Max Morgenstern, Ronald Templin, Bill Matthews, Ruben Wilson, and Lee Peery. Bottom Row - Left to right: Don Wilcoxson, Ransom Dick, Jack Ligon, and Claremont L. Robinson.

## SOONER FLYING CLUB BUYS PLANE

Employees at the Aeronautical Center recently organized a non-profit flying club, incorporated under the laws of the State. The purpose of the Club --- Permit all those working for the FAA who want to fly, to fly safely, and at the lowest possible cost.

Recently, as the picture above indicates, members of the Club bought an all-metal Cessna 170A, and plan soon to buy a two-place combination trainer and cross-country aircraft.

The 20 members of the Sooner Flying Club have an average of 400 hours flying

time per member, with variations from 1 hour to 8,800 hours.

Entrance fee for the Sooner Flying Club is \$50.00. The Club charges \$5.00 a month dues, and \$2.00 an hour for use of the aircraft. Four instructors and ten A and E mechanics are in the Club.

The projected goal of the Club will be 200 members, with 20 aircraft which will include a twin-engined craft such as a Cessna 310 or small Aero Commander.

Those interested in joining the Sooner Flying Club should contact Jack Ligon, in Engineering Services.



### GOLFERS GET TROPHIES

During September, the FAA Golf Club sponsored a tournament at Trosper Park for all interested golfers. Based on qualifying scores, the contestants were divided into four flights. Prizes were awarded to the winners and runners-up in each of the flights and trophies presented to each winner.

J. W. Gregory, AC-190, won the championship flight; Gordon Langford, Flight "A"; Norman Hodgkinson, Flight "B"; and Chester Longman, Flight "C". The trophies were presented to the winners in a ceremony held in the Director's office by Mr. Lanter, assisted by James Gammon, President of the Employees Association, who sponsored the trophies.

Officers of the Golf Club are: R. W. Pulling, Chairman; J. W. Gregory, Vice-Chairman; R. W. Brown, Secretary-Treasurer; and Artemio Cagigal, Handicap and Tournament Chairman.

### INDISPENSABLE ?

Sometime when you're feeling important  
Sometime when your ego's in bloom  
Sometime when you take it for granted  
You're the best qualified in the room;  
Sometime when you feel that your going  
Would leave an unfillable hole,  
Just follow these simple instructions  
And see how they humble your soul.

Take a bucket and fill it with water,  
Put your hand in it up to your wrist  
Pull it out, and the hole that's remaining  
Is the measure of how you'll be missed.  
You can splash all you wish when you enter  
You may stir up the water galore  
But stop and you'll find that in no time  
It looks quite the same as before.

The moral in this quaint example  
Is do just the best you can  
Be proud of yourself, but remember  
There's no indispensable man.

### CHECK DEPOSIT BY MAIL

Your magazine and others often explain that the safe method of depositing checks by mail is to endorse them "For Deposit Only."

Several years ago, I mailed three checks so endorsed, to my bank. The bag of mail they were in was stolen.

The thief opened a checking account in a Maryland bank with a cash deposit of \$250.00, using my name. Several days later he deposited some more cash and my "for-deposit-only" checks. About a week later he went to the bank, said he was being transferred, and drew out all the money.

Tell your readers that to be really safe a check must be endorsed "For deposit only in the such and such bank, at such an address."

Harry Von Stein  
New Hyde Park, L. I., N. Y.

Taken from the Magazine "Changing Times," November, 1959.



This is YOUR . .

# Special Services Branch

**What would happen without Special Services at the Center?**

Ten heavy mail pouches with 2,527 letters and packages would stack up each day. The switchboard would light up 1,532 times for incoming calls, 42 of them long distance, and fellow employees would try 1,000 times to call "outside."

Two hundred and seventy-two teletype messages would stack up without action.

No printing, no course material, no pens, pencils, office supplies. No forms to record your time, so no pay. No pay, no coffee even.



ABOVE, SPECIAL SERVICES BRANCH CHIEF LOREN C. HELM AND MANAGEMENT ANALYST CHARLES F. BRILL COMPLETE THE FINAL CHECK OF 174 BOXES OF RECORDS BEING TRANSFERRED TO THE FEDERAL RECORDS CENTER AT FORT WORTH, TEXAS. 3,000 MORE BOXES WOULD EMPTY CENTER'S FILE CABINETS.

BELOW, CENTER'S PHOTOGRAPHERS. AT TOP OF LADDER IS BOB NEWKIRK, PHOTOGRAPHIC SECTION CHIEF SINCE NOVEMBER, 1958. AT HIS RIGHT, BUTLER AGREE, WHO CAME TO THE CENTER IN SEPTEMBER, 1958; AND AT BOB'S LEFT IS RAYMOND W. MARTINDALE WHO BEGAN WORK AT THE CENTER IN APRIL, 1959. BOB HAS TWO CHILDREN, ROBBY, 4, AND JULIE, 6. GENE AGREE AND HIS WIFE, FAYE, HAVE A 16 YEAR OLD DAUGHTER, JOYCE ANN. RAY AND HIS WIFE, LUCILLE, HAVE TWO DAUGHTERS, LINDA RENÉ, 6, AND JILL ANNETTE, 10 WEEKS OLD.

BELOW, LEFT, CHARLES C. HALL, OFFICE SERVICES SECTION STOREKEEPING CLERK, WHO BEGAN WORK AT THE CENTER IN SEPTEMBER, 1959. HE AND HIS WIFE, THELMA, HAVE TWO CHILDREN, JERRY WAYNE, 11 AND BRENDA JOYCE, 6. HALL WORKED FOR THE CCC IN OKLAHOMA IN 1941, THEN MOVED TO CALIFORNIA WHERE HE WORKED IN SHIPYARDS BEFORE ENLISTING IN THE SEA BEAS IN 1943. HE BEGAN HIS CIVIL SERVICE CAREER IN 1946 AT THE NAVAL SUPPLY ANNEX, STOCKTON, CALIFORNIA. HE MOVED BACK TO HIS HOME TOWN OF HEAVENER EARLY IN 1959, THEN CAME TO OKLAHOMA CITY.

RIGHT, EDWIN C. SCHILLING, SUPERVISORY STOREKEEPING CLERK, OFFICE SERVICES SECTION, JOINED THE CENTER IN AUGUST, 1959. ED AND HIS WIFE, BONNIE, HAVE TWO DAUGHTERS, CHRISTY KAY, 2, AND CYNTHIA IRENE, 5 MONTHS OLD. ED TRANSFERRED TO THE CENTER FROM THE VETERANS ADMINISTRATION HOSPITAL, OKLAHOMA CITY, SPENDING THE FIRST TWO MONTHS IN THE MAIL ROOM BEFORE TAKING OVER HIS PRESENT JOB.





LEFT, LE MOYNE PRAY, MAIL UNIT SUPERVISOR, TRANSFERRED TO THE CENTER IN OCTOBER, 1958. HE AND HIS WIFE, ALICE MARGARET, HAVE A 16 YEAR OLD SON, MERWYN, AND A 12 YEAR OLD DAUGHTER, SANDRA LYNN. PRAY HAS 3 YEARS GOVERNMENT EMPLOYMENT PREVIOUSLY WITH VANCE AIR FORCE BASE, ENID, AND THE VETERANS ADMINISTRATION HOSPITAL, OKLAHOMA CITY.

RIGHT, ROBERT A. CLEERE, COMMUNICATIONS SECTION TRUCK DRIVER, CAME TO THE CENTER IN MAY, 1958. BOB AND HIS WIFE, LORENE, HAVE 2 BOYS AND 3 GIRLS. HE WORKED FOR 3 YEARS AT TINKER AIR FORCE BASE PRIOR TO HIS PRESENT JOB WHERE HE DELIVERS MAIL FROM HEADQUARTERS BUILDING TO THE OUTLYING BUILDINGS, SPECIALIZING IN HANDLING PARCEL POST.

LEFT, JAMES H. COX, MAIL CLERK, BEGAN WORK AT THE CENTER IN OCTOBER, 1959. HE AND HIS WIFE, ALICE MARIE HAVE TWO DAUGHTERS, KATHRYN GAYE AND CHARLOTTE LYNN. COX FORMERLY WAS EMPLOYED BY THE VETERANS ADMINISTRATION AT THE WILL ROGERS FIELD HOSPITAL, AND AT OTHER POSTS IN CAMP STONEMAN, CALIF., FORT MASON, CALIF., AND IN OKLAHOMA AT FORT SILL AND ARDMORE AIR FORCE BASE.

RIGHT, ARTHUR C. LITTLE, MAIL CLERK, WHO CAME TO THE CENTER IN SEPTEMBER, 1958. HE IS MARRIED AND HAS 3 CHILDREN. HIS PRIOR GOVERNMENT SERVICE INCLUDED FOUR AND A HALF YEARS AT THE U. S. GOVERNMENT POST OFFICE AT MOUNTAIN VIEW, CALIF.



LEFT, MARY R. ELDER, SUPERVISOR OF THE TELEPHONE AND TELETYPED UNIT, TRANSFERRED TO THE CENTER IN APRIL, 1958, AFTER WORKING THREE AND A HALF YEARS IN THE COMMUNICATIONS SECTION AT TINKER AIR FORCE BASE. SHE IS MARRIED AND LIVES IN OKLAHOMA CITY WITH HER HUSBAND AND TWO CHILDREN.

RIGHT, JO ELLEN HOLT, COMMUNICATIONS SECTION CLERK-TYPIST, CAME TO THE CENTER IN MARCH, 1959 AS THE CENTER'S 2,000TH EMPLOYEE. PRIOR GOVERNMENT SERVICE INCLUDES 4 YEARS AT THE NORMAN NAVAL BASE AND 2 YEARS AT REESE AIR FORCE BASE, LUBBOCK, TEXAS. SHE LIVES IN OKLAHOMA CITY AND HAS ONE SON.



BELOW, LEFT, RUBY A. LYNN, TELEPHONE OPERATOR, CAME TO THE CENTER IN JUNE, 1958. SHE HAS 12 YEARS GOVERNMENT EXPERIENCE, 7 WITH THE VETERANS ADMINISTRATION REGIONAL OFFICE AND 4 AND A HALF AT THE VETERANS HOSPITAL. RUBY IS MARRIED AND LIVES IN OKLAHOMA CITY.

RIGHT, JUANITA H. COLEMAN, TELEPHONE OPERATOR, BEGAN WORK AT THE CENTER IN APRIL, 1959. SHE FORMERLY WAS A TELEPHONE OPERATOR AT TINKER AIR FORCE BASE FOR THREE AND A HALF YEARS. NITA LIVES IN MIDWEST CITY WITH HER SON, STANLEY.

BELOW, LEFT, BETTY J. WILSON, TELEPHONE OPERATOR CAME TO THE CENTER IN SEPTEMBER, 1959. SHE HAS 2 YEARS EXPERIENCE AS TELEPHONE OPERATOR AND 4 MONTHS AS CHIEF OPERATOR IN THE COMMUNICATIONS SECTION AT TINKER AIR FORCE BASE. JO ANN LIVES IN OKLAHOMA CITY, IS MARRIED AND HAS ONE SON.

RIGHT, JULIA P. GARNER, TELEPHONE OPERATOR, BEGAN HER GOVERNMENT SERVICE AT THE CENTER IN JUNE, 1958. JUDY IS MARRIED AND LIVES IN OKLAHOMA CITY WITH HER HUSBAND AND DAUGHTER.







LEFT, CORINNE SCHIEFELBUSCH, TELETYPE OPERATOR, TRANSFERRED TO THE CENTER IN AUGUST, 1959, FROM FORT CHAFFEE, ARK., WHERE SHE HAD BEEN EMPLOYED FOR 9 AND A HALF YEARS AS COMMUNICATIONS CODE CLERK AND TELETYPE. CONNIE HAS A TOTAL OF 12 YEARS IN GOVERNMENT SERVICE.

RIGHT, M. ANN HARPER, TELETYPE OPERATOR, CAME TO THE CENTER FROM FORT SILL IN OCTOBER, 1958. ANN IS MARRIED AND LIVES IN OKLAHOMA CITY WITH HER HUSBAND AND 2 CHILDREN. SHE HAS A TOTAL OF 2 YEARS OF GOVERNMENT WORK.

LEFT, WILMA D. MOORE, TELETYPE, CAME TO THE CENTER IN AUGUST, 1959. SHE BEGAN GOVERNMENT SERVICE WITH THE U.S. ARMY AS COMMUNICATIONS CODE CLERK FOR 3 YEARS, THEN WITH PUBLIC HEALTH SERVICE FOR 2 MONTHS. WILMA LIVES NEAR NICOMA PARK WITH HER SON AND DAUGHTER.

RIGHT, WILMA J. ELLIS, TELETYPE, CAME TO THE CENTER IN OCTOBER, 1959, HAVING PREVIOUSLY WORKED FOR 2 YEARS AT TINKER AIR FORCE BASE. SHE LIVES IN OKLAHOMA CITY WITH HER HUSBAND, JAMES, AND SON, MICHAEL, 10 MONTHS OLD.



AT LEFT, TRADITIONAL GOING-AWAY PARTY IS PICTURED HERE WITH BILL MURRAY BEING ACCLAIMED BY SOME OF HIS EX-FELLOW WORKERS AFTER HE LANDED A "WHITE-COLLAR" JOB WITH THE TECHNICAL SERVICES BRANCH.

FEMININITY IN THE PICTURE, LEFT TO RIGHT, JUDY GARNER, JO ELLEN HOLT, CAROL KISER, MARY ELDER AND BETTY R. MILLUS.

SINCE THIS PICTURE, CAROL KISER, FORMER BRANCH SECRETARY, TRANSFERRED TO THE AVIONICS TRAINING SECTION. HER SUCCESSOR IS VIOLET HILL, WHO TRANSFERRED FROM TINKER AIR FORCE BASE THIS NOVEMBER.

BELOW, LEFT, BOBBY G. HANEY, REPRODUCTION UNIT SUPERVISOR, WHO IN JUNE, 1956, TRANSFERRED TO THE CENTER FROM TINKER AIR FORCE BASE. BOB AND HIS WIFE, LINDA, HAVE ONE DAUGHTER, TERESA JEAN, 4.

RIGHT, ARTHUR DEAN COX, IN CHARGE OF THE TECHNICAL TRAINING MANUAL LIBRARY FOR THE FEDERAL AVIATION SCHOOLS AT THE CENTER, TRANSFERRED FROM THE SONAR BRANCH OF THE BUREAU OF SHIPS, WASHINGTON, D. C., IN MAY, 1959. HE BEGAN WORK HERE AT FMD, TRANSFERRED TO AC-196.

BELOW, LEFT, RONALD J. SILLS, OFFSET PRESS OPERATOR, CAME TO THE CENTER IN SEPTEMBER, 1958. BEFORE COMING TO THE CENTER, RONNY COMPLETED A 9-WEEKS AIR FORCE BASIC TRAINING COURSE AT LACKLAND, TEXAS, AIR FORCE BASE, THROUGH THE AIR NATIONAL GUARD.

RIGHT, DONALD L. CURTIS, OFFSET PRESS OPERATOR, BEGAN WORK AT THE CENTER IN SEPTEMBER, 1958. DON HAS BEEN A MEMBER OF THE OKLAHOMA AIR NATIONAL GUARD SINCE 1953 IN THE 137TH USAF DISPENSARY. DON AND HIS WIFE, JANICE, LIVE IN OKLAHOMA CITY.





LEFT, JIMMY D. KIMBROUGH, OFFSET PRESS OPERATOR, WAS EMPLOYED BY THE AMERICAN FIRST TITLE AND TRUST CO. BEFORE COMING TO WORK AT THE CENTER IN JANUARY, 1959. HE IS MARRIED AND LIVES IN OKLAHOMA CITY.

RIGHT, ROBERT PAUL WILLIAMS, OFFSET PRESS OPERATOR, HAS BEEN AT THE CENTER A YEAR AFTER WORKING AT TINKER AIR FORCE BASE FOR EIGHT YEARS. HE IS MARRIED, HAS 3 CHILDREN, AND LIVES IN OKLAHOMA CITY.

LEFT, FREDERICK G. RUBOTTOM, HAS BEEN EMPLOYED AT THE CENTER FOR A YEAR. GORDON ENTERED SERVICE IN JUNE, 1941, SERVED FOUR YEARS, AND MOVED TO OKLAHOMA CITY IN 1950.

RIGHT, KENNETH J. R. BAKER TRANSFERRED TO THE CENTER FROM TINKER AIR FORCE BASE IN APRIL, 1958. HE AND HIS WIFE, DARLENE, LIVE IN OKLAHOMA CITY.

RIGHT, THIS IS WHAT EVERYONE WHO HAS A PRINTING ORDER IN PROCESS THINKS THE ACTIVITY IN THE PRINTING PLANT LOOKS LIKE MOST OF THE TIME.

IN REALITY, A TOTAL OF MORE THAN 21,000,000 PRINTING UNITS WERE PRODUCED DURING FISCAL YEAR 1959, REPRESENTING AN INCREASE OF 75% OVER ANY PREVIOUS YEAR.

IN FISCAL YEAR 1960, THERE HAS BEEN ESTIMATED THE NUMBER OF PRINTING UNITS WILL EXCEED 40,000,000.



BELOW, LEFT, JERRIE M. SELF, OFFSET PRESS OPERATOR, WAS PREVIOUSLY EMPLOYED BY REPUBLIC SUPPLY CO. BEFORE COMING TO WORK AT THE CENTER IN AUGUST, 1958. JERRIE IS 22 AND LIVES IN OKLAHOMA CITY.

RIGHT, HARRIET ANN MARSHALL, OFFSET PRESS OPERATOR, WORKED AT BANKERS SERVICE LIFE INSURANCE CO. AS A MULTILITH OPERATOR FOR 3 YEARS BEFORE COMING TO THE CENTER IN SEPTEMBER, 1958. SHE LIVES WITH HER HUSBAND, COTTON, AND TWO SONS IN OKLAHOMA CITY.

BELOW, LEFT, BETTY RUTH MILLUS, OFFSET PRESS OPERATOR, WAS FORMERLY WITH BANKERS SERVICE LIFE INSURANCE CO. BEFORE COMING TO THE CENTER IN SEPTEMBER, 1958. SHE LIVES IN OKLAHOMA CITY WITH HER HUSBAND AND 4 CHILDREN: CHARLES, JR., 19; BETTY SUE, 17; MARTHA ANN, 15; AND TERRY DEE, 9.

RIGHT, NORMA LEE SHARP, OFFSET PRESS OPERATOR, CAME TO THE CENTER IN JANUARY, 1959, HAVING PREVIOUSLY WORKED FOR WHOLESALE PLUMBING, HEATING AND AIR CONDITIONING CO. SHE IS MARRIED AND LIVES IN OKLAHOMA CITY.





COMMUNICATIONS EQUIPMENT CLASS 140 CONVENED OCT. 5, 1959, TO JAN. 8, 1960

NAME	REG.	STATION	NAME	REG.	STATION
Billimak, Robert H.	2	Shreveport, La.	Kim, Dong Han	OIC	Seoul, Korea
Bruhn, Kenneth E.	4	Farmington, N.M.	Keane, Richard J.	1	Washington, D.C.
Buche, Robert	4	Spokane, Wash.	Morris, Donald E.	AC	Okla. City, Okla.
Cahoon, Donald E.	1	New Bedford, Mass.	Mross, Sylvester	1	Salt Lake, Md.
Camp, Frankie L.	2	Croasville, Tenn.	Mulanax, Jack M.	2	Columbus, Ga.
Cheever, Stanley C.	4	Phoenix, Ariz.	Nagata, Tokiwa	6	Canton Island, S.P.
Davidson, W. Murray	4	Oakland, Calif.	Petino, Antonio M.	2	San Antonio, Tex.
Dunning, Henry H., Jr.	1	Chicago, Ill.	Ridenour, Earl F.	4	Stockton, Calif.
Ewing, Thomas F.	1	Portland, Maine	Sanvi, Donald A.	4	Springfield, Ill.
Ferry, Dexter M.	5	Anchorage, Alaska	Shaffer, James K.	4	Medford, Oregon
Forrester, Jack A.	4	Elko, Nevada	Shaw, Lou D.	4	Eagle, Colorado
Hardins, Vernon D.	4	Rawlins, Wyo.	Stephens, Charles E.	1	Newport News, Va.
Hritz, Stephen J.	1	Boston, Mass.	Steward, Ronald H.	5	Anchorage, Alaska
Hwang, Jae Won	OIC	Seoul, Korea	Saskia, Irving	1	New York, N. Y.
Jackson, Doyle D.	4	Las Vegas, Nev.	Winter, Jess S.	2	Nashville, Tenn.

COMMUNICATIONS EQUIPMENT CLASS 141 CONVENED OCT. 19, 1959, TO JAN. 22, 1960

Allen, Gerald D.	1	Jamaica, N. Y.	Haslett, Harold L.	4	Los Angeles, Calif.
Azama, Raymond S.	6	Honolulu, Hawaii	Hesterworth, B. O.	4	Oceanside, Calif.
Bankaya, Osman M.	OIC	Istanbul, Turkey	Kelly, Earl G.	2	Gage, Okla.
Baysal, Sukru Kaya	OIC	Turkey	Kish, Vincent L.	1	Cleveland, Ohio
Bonner, Laurence, Jr.	4	Boise, Idaho	McKelvey, John W.	4	Boise, Idaho
Clare, George R.	2	Wink, Texas	MacGillivray, Bryan D.	4	Great Falls, Mont.
Cline, Joe E.	2	Greensboro, N.C.	MacIndale, Norman R.	4	Salt Lake City, Utah
Clover, Vernon L.	2	El Paso, Texas	Mihalopoulos, Antonio	OIC	Greece
Coker, Harry W.	2	Miami, Fla.	Rodighiero, Raymond A.	4	Trinidad, Colo.
Commercer, Lester	1	Pittsburgh, Pa.	Rosenblum, Irwin A.	1	Cleveland, Ohio
Davis, Henry L.	1	Cleveland, Ohio	Salsman, Robert A.	4	Anchorage, Alaska
Dayton, James E.	1	New Castle, Del.	Turken, Ibrahim Z.	OIC	Ankara, Turkey
Easterwood, Luis D.	4	Los Angeles, Calif.	Van Kleeck, George	5	Farewell, Alaska
Erskine, Roy B., Jr.	2	Payetteville, N.C.	Wylie, Stanley R.	3	Inkster, Mich.
Freeman, John P.	2	Armore, Okla.	Zacharek, Gerald J.	4	Tonopah, Nev.

ILS CLASS 159 CONVENED OCTOBER 2, TO OCTOBER 30, 1959

Almeida, Mario	OIC	Brazil	Mancini, Frank T.	1	Teterboro, N. J.
Blackwell, John H.	2	Tulsa, Okla.	Pantoja, Mario F.	OIC	Brasil
Carmelo, Carlos	OIC	Brazil	Peres, Delfin	OIC	Cuba
Chang, Wilfred H. Y.	4	San Francisco, Cal.	Rutherford, Raymond J.	3	St. Joseph, Mo.
Erickson, Kenneth E.	4	Billing, Mont.	Ryan, Jesse L.	4	Los Angeles, Calif.
Gillich, Raymond P.	1	Atlantic City, N. J.	Santiago, Juan	OIC	Cuba
Hamilton, Joseph F.	2	Meridian, Miss.	Santos, Raimundo	OIC	Brazil
Kidwell, Thomas C.	2	Orlando, Fla.	Smith, Douglas R.	4	Salt Lake City, Utah
Lempert, Harold A.	1	Philadelphia, Pa.	Toole, Edward	1	Midland, Texas
Lujan, Teodoro	4	Los Angeles, Calif.	Walker, Leander F.	AC	Okla. City, Okla.

ILS CLASS 160 CONVENED OCTOBER 19, TO NOVEMBER 13, 1959

Beagley, John R.	4	Denver, Colo.	Morrison, Herman W.	1	Pomona, N. J.
Clark, Beryl M.	1	Pittsburgh, Pa.	Olsen, Charles K.	4	Klamath Falls, Ore.
Cook, Robert S.	4	Las Vegas, Nev.	Porter, Sidney R.	4	Rosewell, N. Mex.
Crook, Walter A.	4	Casper, Wyo.	Stanley, Charles K.	AC	Okla. City, Okla.
Dolvin, Carl W.	1	Akron, Ohio	Stuckles, G.M., Jr.	4	Fresno, Calif.
Kraus, Errol H.	3	Rochester, Minn.	Tichenor, George W.	2	Midland, Texas
Lansilla, Louis H.	1	Boston, Mass.	Toth, Edward W.	3	Romulus, Mich.
Lord, Earl L.	3	Romulus, Mich.	Wilson, Howard L.	3	Minneapolis, Minn.

VOR CLASS 163 CONVENED OCTOBER 5, TO NOVEMBER 27, 1959

Andrews, Herman T.	4	Los Angeles, Cal.	McKeehan, John W.	4	Utah, Calif.
Angwin, Warren L.	4	Fort Bridge, Wyo.	McTucker, John L.	3	Ft. Wayne, Ind.
Bogdanowicz, W. P.	1	White Plains, N.Y.	Miller, Russell L.	4	Seattle, Wash.
Borowits, Frank	1	Jamestown, N.Y.	Milton, Richard D.	AC	Okla. City, Okla.
Bostler, M.D., Jr.	5	King Salmon, Alaska	Morgan, Wilsa G.	4	Gr. Junction, Colo.
Fairbanks, Harold M.	3	Gr. Rapids, Mich.	Palmer, George W.	4	Klamath Falls, Ore.
Fuller, Robert B.	3	South Bend, Ind.	Palmer, Wm. D.	4	Daggett, Calif.
Guthrie, Harold R.	4	Blythe, Calif.	Pavlatia, Gregoria	OIC	Greece
Hammond, Edward J.	3	St. Louis, Mo.	Perry, Joseph D.	2	Gross City, Fla.
Hazelwood, Norman W.	AC	Okla. City, Okla.	Ritter, John R.	5	Bethel, Alaska
Holte, Richard W.	3	No. Platte, Nebr.	Rogers, Roy C.	2	Lometa, Texas
Johnson, Earl J.	4	Fresno, Calif.	Shall, Charles E.	1	Richmond, Va.
Joppie, LeRoy E.	3	Gr. Rapids, Mich.	Smith, Larry T.	2	Raleigh, N. Car.
LaReau, Robert J.	1	Worcester, Mass.	Wood, Roger O.	4	Spokane, Wash.
Lothes, Eugene P.	1	Columbus, Ohio	Zaburanc, John P.	1	Manfield, Ohio
McCarney, Theodore	WO	Washington, D.C.	Zittle, Walter K.	1	Buffalo, N. Y.
McCool, Frank H.	1	Worcester, Mass.			

VOR CLASS 164 CONVENED OCTOBER 19, TO DECEMBER 11, 1959

Abe, Clarence L.	6	Agana, Guam	Kelley, David R.	1	Findlay, Ohio
Bauer, Clarence F.	2	Saint Croix, V.I.	Mertz, Vincent E.	3	Russell, Kansas
Bischoff, Dale H.	3	Minneapolis, Minn.	Overfelt, Paul A.	1	Roanoke, Va.
Briscoe, Robert F.	2	New Orleans, La.	Pickard, Harold W.	4	Billing, Mont.
Butterworth, Richard	1	Norfolk, Va.	Pickel, John R.	3	Romulus, Mich.
Campbell, Donald E.	4	Oakland, Calif.	Riley, Lucious N., Jr.	1	Newark, N. J.
Campes, Laurence	4	Yakima, Wash.	Ronald, James L.	5	Anchorage, Alaska
Coon, Stanley M.	1	Glens Falls, N.Y.	Sarn, Floyd	4	Oakland, Calif.
Farner, James E.	2	Port Worth, Tex.	Schmitt, Gordon W.	4	Portland, Ore.
Ferences, Joseph	1	Idelwild, N.Y.	Smith, Paul T.	2	Crossville, Tenn.
Freeman, William H.	4	Eagle, Colo.	Templeman, Donald L.	3	Kansas City, Mo.
Galick, Kenneth T.	4	Thermopolis, Wyo.	Tetz, Dahl W.	4	Reno, Nev.
Graham, Joe D.	3	Bradford, Ill.	Van Hoosen, Rodger	3	Chicago, Ill.
Haukaas, Harold L.	2	Tampa, Fla.	Welling, Edward M.	3	Rapid City, S. Dak.
Hefler, Verne R.	2	Okla. City, Okla.	Jones, Eugene W.	2	Longview, Tex.
Hemming, Alfred R.	4	Spokane, Wash.			

ESTABLISHMENT CLASS 5 CONVENED OCTOBER 19, TO NOVEMBER 13, 1959

NAME	REG.	STATION	NAME	REG.	STATION
Altstatt, Earl E.	4	Los Angeles, Calif.	Romero, Frank S.	4	Los Angeles, Calif.
Hebert, Warren G.	2	Ft. Worth, Tex.	Smith, Harold D., Jr.	3	Kansas City, Mo.
Monseca, John J.	1	Idelwild, N. Y.	Uyehara, Kenneth H.	6	Honolulu, Hawaii
Podreger, John R.	2	Ft. Worth, Tex.			

SHORT TAGAN CLASS 12 CONVENED OCTOBER 5, TO NOVEMBER 13, 1959

Athey, Leon M.	3	Pierre, S. Dak.	Madden, Russell E.	1	Huntington, W. Va.
Goble, Leonard E., Jr.	AC	Okla. City, Okla.	Mikesell, R. E., Jr.	1	Cleveland, Ohio
Crounch, Robert M.	3	Goahen, Ind.	Monasmith, Harvey S.	3	Maize, Kansas
Donaldson, Calphrey	2	Charleston, S.C.	Ogg, Frank	4	Los Angeles, Calif.
Finnell, David O.	2	Midland, Texas	Pezsoli, Victor H.	4	Burbank, Calif.
Gullberg, Howard E.	2	Ft. Worth, Tex.	Savickas, John M.	1	Wilkes Barre, Pa.
Horton, Howard V.	3	Duluth, Minn.	Shuler, Cyrus E.	2	Okla. City, Okla.
Johnson, John R.	2	Montgomery, Ala.	Wade, Everett A.	3	Kansas City, Mo.
Jones, Samuel G.	3	Redwood Falls, Minn.	Welch, John H.	6	Kaneche, Hawaii
Kantenwein, Charles	1	Pittsburgh, Pa.	Wilmerring, J. F., Jr.	3	St. Louis, Mo.
Ketterling, Elmer R.	4	Yakima, Wash.	Woodford, Riley C.	1	Charleston, W. Va.

DME and TAGAN CLASS 6 CONVENED OCTOBER 19, 1959, TO FEBRUARY 5, 1960

Armour, Robert R.	3	Malden, Mo.	Linda, John C.	2	Waco, Texas
Beauregard, Jerry H.	4	Phoenix, Ariz.	Migdaleki, Edward V.	1	Buffalo, N. Y.
Blecker, C. N., Jr.	2	Nashville, Tenn.	Paquette, Leo J.	3	No. Platte, Nebr.
Crowley, James L.	2	Alma, Ga.	Shaklee, Donald C.	3	Indianapolis, Ind.
Gillaspie, James D.	4	Carlsbad, N. Mex.	Sheatsley, Noble G.	4	Spokane, Wash.
Hilton, Russell C.	2	El Paso, Texas	Thralldall, John D.	3	Vandalia, Ill.
Jones, Robert E.	3	Des Moines, Iowa	Williams, W. W., Jr.	1	Washington, D.C.

TAGAN CLASS 15 CONVENED OCTOBER 19, 1959, TO JANUARY 8, 1960

Besso, Stanley H.	2	Memphis, Tenn.	Gibbs, Carl E.	2	Columbus, Miss.
Buster, Carl H.	4	Boise, Idaho	Jennings, Jackie M.	3	Vichy, Mo.
Coates, Thomas M.	1	London, Ky.	Maxvold, Donald L.	5	Anchorage, Alaska
Crouter, Charles W.	4	Bakers, Oregon	Morera, Richard L.	4	Boise, Idaho
Cullers, William E.	4	San Francisco, Cal.	Peterson, Carl G.	3	Rockford, Ill.
Fife, Russell A.	4	Colo. Spgs., Colo.	Ross, Paul W.	2	Payetteville, Ark.

RML REPEATER CLASS 4 CONVENED OCTOBER 19, TO OCTOBER 30, 1959

Bracken, William B.	1	New York, N. Y.	Perlenfeir, Norman L.	3	Omaha, Nebr.
Bunn, William E.	3	Emporia, Kansas	Russell, Donald E.	3	Emporia, Kansas
Chambers, Donald W.	4	Seattle, Wash.	Strangboen, Gilbert	3	Omaha, Nebr.
Ciccone, Anthony V.	1	Washington, D.C.	Swanson, Martin E.	4	Portland, Oregon
Neater, Lee N.	4	Bakersfield, Calif.	Van Nostrand, David	1	Bedford, Va.
Parks, Clayton A.	4	Dallas City, Ore.	Walker, James W.	1	Gordonville, Va.

RAIDAR OPTION SPECIALTY CLASS 137 CONVENED OCTOBER 12, TO NOVEMBER 13, 1959

NAME	REG.	STATION	NAME	REG.	STATION
Andrews, William E.	3	St. Louis, Mo.	Luehbbers, Roy B.	4	Santa Margarita, Cal.
Bassett, Roland L.	4	Los Angeles, Calif.	Hogberg, LeRoy O.	2	El Paso, Texas
Billick, Andrew S.	5	Fairbanks, Alaska	Mateo, Richard	6	Honolulu, Hawaii
Carpenter, Francis M.	1	Covington, Ky.	McCabe, Francis B.	1	Boston, Mass.
Carson, Charles T.	5	Fairbanks, Alaska	McWilliams, R.D.	3	Kansas City, Mo.
Cavanaugh, Thomas	4	Los Angeles, Calif.	Miller, Glenn J.	4	Long Beach, Calif.
Cozart, Billy J.	2	Charlotte, N. Car.	Mineskern, Phillip W.	1	Boston, Mass.
Darley, Arthur	2	Brunswick, Ga.	Oryon, Clarence M.	4	Santa Margarita, Cal.
Diabolt, Edward D.	5	Fairbanks, Alaska	Parri, Martin W.	4	Great Falls, Mont.
Drews, Kenneth E.	4	Tucson, Ariz.	Pattabiraman, J.	OIC	India
Exposito, Salvatore A.	1	New York, N. Y.	Reagor, Charles G.	2	Austin, Texas
Etheridge, Johnny R.	2	Alexandria, La.	Shaddox, Dale C.	4	Fairchild AFB, Wash.
Gingrich, Edward A.	1	Philadelphia, Pa.	Sharron, Kenneth R.	2	Nashville, Tenn.
Gonzales, Jorge L.	2	Tampa, Fla.	Shirk, Howard L.	2	El Paso, Texas
Hamilton, Robert A.	2	Miami, Fla.	Starkey, Ivan W.	3	Lincoln, Nebr.
Hebbard, Donald M.	4	Los Angeles, Calif.	Stewart, Sam E.	2	Columbus, Texas
Hoebler, William R.	1	Pittsburgh, Pa.	Strobel, William H.	2	Raleigh, N. Car.
Jenkins, Clifford D.	2	New Orleans, La.	Sumnylo, Edward	3	Chicago, Ill.
Johnson, Harold E.	4	San Francisco, Cal.	Tubeta, Frank B.	1	Cleveland, Ohio
Joinston, Wilbur A.	2	Maxwell AFB, Ala.	Tucker, William J.	4	Los Angeles, Calif.
Krita, William C.	3	Hutchinson, Kans.	Walker, Charles H.	2	Houston, Texas
Lain, Franklin K.	3	Olathe, Kansas	Weeks, Peter J.	2	Tampa, Florida
LeBaron, Wayne E.	4	Salt Lake City, Utah	Wilson, Robert L.	4	Fairchild AFB, Wash.
Leuts, Roger D.	2	Raleigh, N. Car.	Wilson, Willie J.	2	Ft. Worth, Tex.
Livesay, James D.	1	Fairborn, Minn.	Wolfe, Charles P.	4	San Francisco, Calif.
Long, Lyndal W.	2	Okla. City, Okla.			

RAIDAR CLASS 139 CONVENED SEPTEMBER 21, 1959, TO JANUARY 9, 1960

Bartoo, Loren S.	2	Ft. Worth, Tex.	Isenhower, Harold W.	4	Albuquerque, N.M.
Bauman, Charles T.	2	Atlanta, Ga.	Landers, Harry E.	4	Albuquerque, N.M.
Bergs, Victor A.	2	Shreveport, La.	Marks, Cecil	2	Ft. Worth, Tex.
Blocker, Alvin	2	Shreveport, La.	Martin, Gal B.	4	Tacoma, Wash.
Bolsinger, Harry M.	3	Wichita, Kansas	Meyer, John F.	4	Spokane, Wash.
Bradford, Carol P.	1	Norfolk, Va.	Moore, Eugene C.	2	New Orleans, La.
Bridges, Herbert L.	5	Anchorage, Alaska	Noel, Robert E.	2	Ft. Worth, Tex.
Briggs, Sherwin L.	3	Kansas City, Mo.	Oldham, Herschel J.	2	Amarillo, Tex.
Busey, Norman C.	3	Omaha, Nebr.	Pille, Wilfred U.	3	Chicago, Ill.
Clark, Byron F.	4	Colo. Spgs., Colo.	Powell, Stafford	2	Atlanta, Ga.
Cline, George V.	5	King Salmon, Alaska	Pierce, Emmitt C.	3	LaGrange, Ind.
Cobb, Charles A.	5	Yakutat, Alaska	Ridge, Lowell H.	4	Dallas City, Ore.
Conroy, Robert J.	1	New York, N. Y.	Rosal, Monica	4	Miramar NAS, Calif.
Crees, Joe B.	3	Long Range, Omaha	Rudolph, Ronald V.	4	Los Angeles, Calif.
Davidson, Edward A.	2	Montgomery, Ala.	Schindler, Wm. A.	1	Cleveland, Ohio
Dougherty, Donald F.	3	Omaha, Nebr.	Simkins, Vernon B.	3	Omaha, Nebr.
Fries, Elbert Wm.	4	Los Angeles, Calif.	Steele, John L.	4	Oakland, Calif.
Garcia, Hector	2	Raleigh, N. Car.	Stobbe, Franklin D.	4	Colo. Spgs., Colo.
Gould, Krader E.	5	Fairbanks, Alaska	Tonkin, Jerome L.	4	Redwood City, Calif.
Hankins, Lloyd E.	3	Kansas City, Mo.	Tynan, William B.	4	Las Vegas, N. Mex.
Harrell, Charles E.	2	El Paso, Texas	Whitaker, Clarence L.	4	Oakland, Calif.
Hill, Glen R.	2	Miami, Fla.	Whitaker, G. W., III	2	Ft. Worth, Tex.
Hudson, Julius R.	2	Graham, Tenn.	Wusnack, Otto A.	2	El Paso, Tex.
Katje, Gerald P.	3	Minneapolis, Minn.			

## ELECTRO-MECHANICS CLASS 10 (ENGINES PHASE) - OCT. 26, TO NOV. 15, 1959

NAME	REG.	STATION	NAME	REG.	STATION
Brader, Robert A.	4	Petaluma, Calif.	Knowlton, William	1	Philadelphia, Pa.
Clark, Forrest C.	4	Great Falls, Mont.	Lamb, Max E.	3	St. Joseph, Mo.
Clouting, Karl R.	1	Pomona, N.J.	Martin, Francis A.	1	Bedford, Mass.
Fisher, Gail B.	2	Charlotte, N. Car.	Moore, Elwin J.	3	Minneapolis, Minn.
Fujimori, Hiroshi	6	Wake Island	Robinson, Max R.	5	Cordova, Alaska
Glidden, Donald R.	2	Swan Island	Statser, George W.	AC	Oklahoma City, Okla.

## ELECTRO-MECHANICS CLASS 11 (ELECTRICAL PHASE) - OCT. 26, TO NOV. 27, 1959

Boyd, Jimmy D.	AC	Oklahoma City, Okla.	Oellien, Charles A.	4	Daggett, Calif.
Dean, H. C.	2	Tallahassee, Fla.	Ouellette, Louis R.	3	Duluth, Minn.
Goodgame, Edgar P.	2	Birmingham, Ala.	Scaringi, Joseph F.	1	Flushing, N. Y.
McCullough, Ernest M.	5	Anchorage, Alaska	Stapp, William J., Jr.	1	Washington, D. C.
McIntosh, Wesley S.	5	Anchorage, Alaska	Wicienciak, Stanley P.	3	Milwaukee, Wis.
Maasey, John E.	2	Atlanta, Ga.			

## MAINTENANCE SUPERVISION CLASS 19 CONVENED OCT. 19, TO OCT. 23, 1959

Arnold, H. N.	2	Palacios, Texas	McCullough, Ernest	5	Anchorage, Alaska
Brooksaber, O. D.	AC	Oklahoma City, Okla.	McMannus, James, Jr.	1	Burlington, Vt.
Johnson, Vinton G.	3	Farmington, Mo.	Thompson, Lucy L.	4	Bakersfield, Calif.
Leonard, L. N.	2	Wilmington, N. C.	Townsend, Carl E.	4	Roswell, N. Mex.
Levey, Frederick	1	Dayton, Ohio	Vajgrt, Lumir A.	3	Lincoln, Neb.
Mallory, Ray L.	3	Salina, Kansas	Williams, Earl V.	1	Rossmore, Va.
Mathless, Erling S.	1	Idlewild, N. Y.			

## OCTOBER GRADUATES IN DIRECTED STUDY COURSE 1

NAME	REG.	STATION	NAME	REG.	STATION
Biscamp, Roy G.	Spec.	Birmingham, Ala.	Miller, R. P.	AC	Oklahoma City, Okla.
Esposito, Salvatore A.	1	London, Ohio	Yong, Gus	6	Wake Island
Guy, Edward P.	WB	Springfield, Ohio			

## OCTOBER GRADUATES IN DIRECTED STUDY COURSE 2

Athey, J. B.	Spec.	Miami, Fla.	Lewis, Edward E.	2	Oklahoma City, Okla.
Chick, John M.	WB	Caribou, Maine	Lockwood, Clyde F.	3	No. Platte, Neb.
Connelly, Gene	4	Denver, Colo.	Luke, G. V.	4	Idaho Falls, Idaho
Craig, Ralph C.	1	Jefferson, Ohio	Maier, Francis H.	2	Dallas, Texas
Darling, Donald E.	5	Moses Pt., Alaska	Marquez, Joe F.	4	Columbus, N. Mex.
Daugherty, Wm. M.	AC	Oklahoma City, Okla.	McCormick, James D.	2	Houston, Texas
Devine, J. C.	1	Easthampton, Mass.	McLeod, Joseph F.	2	San Antonio, Texas
Duncan, Richard M.	2	San Antonio, Texas	Onsgard, Charles P.	3	Green Bay, Wis.
Fuller, Donald R.	5	Northway, Alaska	Parker, O. M., Jr.	2	Pensacola, Fla.
Grabau, A. W.	4	Sunnyside, Calif.	Pearson, Edgar	6	Honolulu, Hawaii
Huginin, Charles P.	3	Chadron, Neb.	Powell, William P.	4	Needles, Calif.
Hurst, Winford M.	5	Anchorage, Alaska	Preston, Edgar N.	1	Shelby, Ohio
Ing, John C. Y.	6	Honolulu, Hawaii	Roseborough, R. W.	4	Medford, Oregon
Jones, Robert E.	3	Des Moines, Iowa	Rova, W. H.	3	Bismarck, N. Dak.
Kaeuffer, Ernest A.	1	Sandston, Va.	Sekach, Frank J.	3	Jackson, Mich.
Keller, Arnold M.	2	Lake Charles, La.	Townsend, Robert L.	2	Houston, Texas
Kernaghan, Warren A.	6	Kaui, Hawaii	Watanabe, Fred K.	6	Hilo, Hawaii
Kuroiwa, Kenneth K.	6	Honolulu, Hawaii			

## OCTOBER GRADUATES IN DIRECTED STUDY COURSE 90

NAME	REG.	STATION	NAME	REG.	STATION
Baggett, Morris E.	2	Seguin, Texas	Miller, William E.	4	Inglewood, Calif.
Benson, Jerome S.	3	Grassburg, Wis.	Miracle, Leroy	1	Cleveland, Ohio
Bronke, Ronald R.	3	Melrose Park, Ill.	Mone, Edward A.	4	Casper, Wyo.
Cannon, M. W., Jr.	1	Norfolk, Va.	Monroe, Ray	1	Vandalia, Ohio
Carpenter, Homer G.	AC	Oklahoma City, Okla.	Morgan, Carl N.	2	New Orleans, La.
Chark, William H.	2	Hialeah, Fla.	Morgan, G. F.	2	Pine Bluff, Ark.
Ciccone, Anthony V.	1	Washington, D. C.	Mundil, Frederick J.	4	Great Falls, Mont.
Cooper, James M.	2	El Paso, Texas	Naylor, Joel G.	4	Bountiful, Utah
Carlington, T. W.	3	Chadron, Neb.	Nenno, Edward H.	4	Deming, New Mex.
Davis, Richard E.	4	Denver, Colo.	Nichols, K. E.	4	Spokane, Wash.
Dogubene, Henry F.	2	New Orleans, La.	Park, Arthur W.	6	Kapa, Hawaii
Emmis, William O.	1	Chesapeake, Ohio	Petty, Allen E.	2	Metairie, La.
Ewing, G. M., Jr.	1	Hartford, Conn.	Pike, Edwin E.	1	Bridgeport, Conn.
Fanning, Johnny R.	AC	Pauls Valley, Okla.	Plumlee, Dale M.	2	Midwest City, Okla.
Ferrara, George	4	Elko, Nevada	Prater, Clyde V.	2	Memphis, Tenn.
Forrester, Jack	4	Wheeling, W. Va.	Rhesume, Alcide	4	Malad City, Idaho
Fulton, James W.	1	South Bend, Ind.	Rosenblum, Irwin A.	1	Cleveland, Ohio
Green, M. O'Neal	2	Hialeah, Fla.	Shaddox, Dale G.	4	Spokane, Wash.
Haines, Charles D.	1	Pittsburgh, Pa.	Smith, Thomas A.	2	Anderson, S. Car.
Hamilton, John B.	2	Ft. Worth, Tex.	Snowdeal, Lloyd W.	Spec.	Berea, Ohio
Harris, Joseph A.	1	Lynchburg, Va.	Stapleton, Richard P.	1	Newport, Ky.
Haybach, Joseph S.	1	Washington, D. C.	Swanson, Martin F.	4	Portland, Ore.
Heichelbech, Leon P.	2	Cross City, Fla.	Switzer, Marvin F.	1	Lynchburg, Va.
Hill, Raymond E.	1	Jamestown, N. Y.	Taylor, Billie J.	2	El Paso, Texas
Hoops, L. B.	6	Honolulu, Hawaii	Tucker, U. L.	2	Wilmington, N. Car.
Jacobson, Gene D.	4	Portland, Ore.	Tyler, Elwin E.	AC	Oklahoma City, Okla.
Jones, W. L.	2	Ponca City, Okla.	Westwood, Robert L.	5	Fairbanks, Alaska
Juhl, Conrad G.	4	Paso Robles, Calif.	Wildes, James F.	WB	Macon, Ga.
Knudsen, Richard	4	Lake Grove, Ore.	Williams, Earl V.	1	Rossmore, Va.
Lucas, Lester J.	1	Columbus, Ohio	Winters, Edward J.	1	Georgetown, Pa.
Martin, Francis A.	1	Lexington, Mass.	Wong, Raymond G.	6	Honolulu, Hawaii
Martin, Robert J.	4	Grants, N. Mex.	Wright, Fred E.	2	Pasadena, Texas
McCoy, Joseph G.	2	Biggs AFB, Tex.	Young, Robert W.	4	Pacific, Calif.
McDonald, Desmond	4	Drummond, Mont.	Zanda, Robert	1	Bradford, Pa.

## OCTOBER GRADUATES IN DIRECTED STUDY COURSE 100

Aiken, Winfred T., Jr.	2	Memphis, Tenn.	Jaakola, Reynold E.	3	Grand Marais, Mich.
Bender, L. E., Jr.	AC	Oklahoma City, Okla.	Larrabee, Jack W.	4	Castro Valley, Calif.
Carble, John L.	2	Terminal, Texas	Lutes, Bobby J.	3	Joliet, Ill.
Carroll, Sam P.	4	Albuquerque, N. M.	Pan, William N.	4	Castro Valley, Calif.
Cook, Robert L.	AC	Norman, Okla.	Seagle, George	AC	Oklahoma City, Okla.
Cox, Clarence E.	AC	Oklahoma City, Okla.	Strickland, Marion G.	3	Kansas City, Mo.
Eaton, Wayne B.	4	The Dalles, Ore.	Torrent, Luis	OIC	Canary Islands
Hedgecock, Ray G.	1	Louisville, Ky.	Waldrep, Lloyd A.	2	San Antonio, Texas

## OCTOBER GRADUATES IN DIRECTED STUDY COURSES IN 200 SERIES

NAME	REG.	STATION	NAME	REG.	STATION
DS-201					
Iversen, Robert C.	4	Seattle, Wash.	Rider, C. W.	4	Seligman, Ariz.
Larsen, Melvin R.	4	Willcox, Ariz.	Shinast, Kensuke	6	Honolulu, Hawaii
Orton, Glenn G.	AC	Oklahoma City, Okla.	Taylor, Donald A.	2	Oklahoma City, Okla.

## DS-202

Baker, Ben	3	Rapid City, S. Dak.	Parvi, Martin W.	4	Great Falls, Mont.
Bell, James F., Jr.	2	East Point, Ga.	Plowman, Herbert J.	4	Westminster, Colo.
Jones, Dalton E.	AC	Norman, Okla.	Polla, Pio, Jr.	1	Washington, D. C.
Ketterling, Elmer R.	4	Yakima, Wash.	Ruffin, Robert T.	4	Great Falls, Mont.
Macy, Sam G.	1	Morgantown, W. Va.	Taylor, Donald A.	2	Norman, Okla.
McGrath, Ready P.	1	Simsbury, Conn.	Welling, Edward M.	3	Rapid City, S. Dak.
Miller, Roy F.	WB	Denver, Colo.			

## DS-203

Floyd, Calvin D.	AC	Oklahoma City, Okla.	Slensby, Jack L.	1	Florence, Ky.
Payne, Samuel	4	Oakland, Calif.	Smith, Harry H.	4	Eugene, Oregon
Polla, Pio, Jr.	1	Washington, D. C.	Waldrep, Lloyd A.	2	San Antonio, Texas
Rosaman, Benjamin	4	Oakland, Calif.	Wood, Lawrence M.	4	Albuquerque, N. M.
Slate, Curtis J.	4	Arcata, Calif.	Young, Gordon O.	5	Anchorage, Alaska

## DS-204

Brown, William K.	2	Stephenville, Tex.	Price, Claude S., Jr.	2	Jackson, Miss.
Goforth, Vernon E.	2	Wellford, S. Car.	Stanley, John T.	2	Jackson, Miss.
Olson, Clyde O.	4	Seattle, Wash.			

## DS-206

Bischoff, Dale	3	Minneapolis, Minn.	Peterson, Carl G.	3	Kansas City, Mo.
Brown, Harold	2	Terminal, Texas	Polla, Pio, Jr.	1	Washington, D. C.
Lau, Norman Y. T.	6	Wake Island	Price, Stanley P. E.	5	Anchorage, Alaska
Makay, Charles L.	3	Omaha, Neb.			

## OCTOBER GRADUATES IN DIRECTED STUDY COURSES IN 300 SERIES

## DS-301

Hosler, Alvin C.	4	Gr. Junction, Colo.	Steward, Maurice L.	2	Monroe, La.
Kimball, Reginald G.	1	Millinocket, Me.	Terranova, John F.	4	Pacoima, Calif.
Maloy, D. H.	2	Alma, Ga.	Vickers, DeForest	4	Great Falls, Mont.
Osborne, Robert E.	3	Sidney, Neb.	Whitehouse, W. M.	5	Anchorage, Alaska
Reyna, Joaquin	2	Houston, Tex.	Williams, Fred M.	4	Salt Lake City, Utah

## DS-302

Berry, Henry C.	2	Atlanta, Ga.	DeMerritt, L. G.	4	Portland, Ore.
Bligh, Charles W.	3	Alton, Ill.	Leabo, Dou C.	3	Fargo, N. Dak.
Burke, William J.	1	Watervliet, N. Y.	Skolnick, Bertram	1	Jamaica, N. Y.

## OCTOBER GRADUATES IN DIRECTED STUDY COURSES IN 300 SERIES

NAME	REG.	STATION	NAME	REG.	STATION
DS-303					
Isumi, George Y.	6	Honolulu, Hawaii	Mogensen, Harry T.	4	Elko, Nevada
Leabo, Dou C.	3	Fargo, N. Dak.	Whitworth, George R.	2	Austin, Texas
McMorrow, Norman S. W.	O	Rochester, N. Y.			

## DS-304

Heller, Vernie R.	2	Raleigh, N. Car.	Terry, Charles F.	3	Springfield, Ill.
Peterson, Ramon W.	3	Battle Creek, Mich.			

## OCTOBER GRADUATES IN DIRECTED STUDY COURSE 401

Carson, Robert G.	AC	Oklahoma City, Okla.	Daugherty, Wm. M.	AC	Oklahoma City, Okla.
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## OCTOBER GRADUATES IN DIRECTED STUDY COURSE 441

Luciani, Vincent J.	AC	Oklahoma City, Okla.			
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FAA EMPLOYEES ASSOCIATION  
Financial Statement  
(For period ending October 31, 1959)

Balance Sheet

<u>Assets</u>		<u>Liabilities</u>	
Cash on Hand	-0-	FAA Employees Association	
Cash in Bank	3,241.59	Available Surplus	4,306.78
Special Deposits	3,096.50	From Operating Statement	3,524.98
Inventories	44.00		
Vending Machine Change Funds	10.00		
Equipment	1,084.55		
Accounts Receivable	355.12		
	<u>7,831.76</u>		<u>7,831.76</u>

OPERATING STATEMENT

<u>Receipts</u>	<u>Year to Date</u>	<u>October</u>
Candy Sales	2.10	
Less Stover Candy Payment	- 81.61	
Sale of Decals	267.25	23.25
Less Cost of Decals	- 240.67	-9.20
Sale of Pins	50.00	50.00
Sale of Fertilizer	1,673.83	56.40
Less Cost of Fertilizer	-1,590.78	-114.10
Sale of Vitamins	1,058.12	555.12
Less Cost of Vitamins	- 956.44	- 506.97
Vending Machines	9,493.51	935.60
Membership Fees	1,391.00	10.00
Interest - Special Deposit	61.40	
GEX Board of Directors Fee	20.00	
	<u>11,147.71</u>	<u>1,000.10</u>

Expenditures

Floral	633.44	86.03
Beacon Expense	294.19	
Entertainment	4,179.21	165.00
Less Sale of Tickets, Etc.	-2,395.65	-103.14
Administrative Expense	67.00	48.00
Rentals - Space - Sound Equip.	1,786.56	165.81
Prizes - Membership - Christmas Coffee	365.00	
Rental Square Dance Hall	373.80	
Less Group Dues	-17.50	
Donations	365.00	107.50

Expenditures (Continued)

Bowling Leagues	334.27	
Soft Ball	286.65	
Choral Group	478.00	79.00
Less Group Dues	-36.00	
Plaques	85.07	14.28
Buttons	210.00	210.00
Dishes	122.30	
Colored Photo Supplies	28.00	
Nursery Stock	30.60	
FAA Golf Club	75.00	
Headquarters Coffee Fund	55.00	25.00
Trophy Case	111.06	
Insurance and Fuselage Rental	81.00	
12 Guest Lunches	10.30	10.30
Cards - "Saying of Month"	35.00	35.00
Book in Lieu of Flowers	4.17	4.17
Miscellaneous	61.26	
	<u>7,622.73</u>	<u>846.95</u>

To Balance Sheet	<u>3,524.98</u>	<u>153.15</u>
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## "SPACE IN OUR TIME"

Man is a bold, most adventuresome thing,  
For most any challenge will make his heart sing;  
But when he chose space as his present endeavor,  
The body's construction proved him not very clever,  
Since body functions are best 'neath earth's mantle of pressure,  
His trip into space proves a most dangerous pleasure;  
Yet, its mysteries and thrills he must undergo,  
Though the steps be enormous and progress quite slow;  
Still, we can't scoff this man and say he's daft,  
For engineers know they can build him the craft.

Now all that remains is to help this bold soul,  
Stay alive while he reaches and returns from his goal;  
But men of research are hot in pursuit,  
Of this ill-designed man in the pressure suit;  
And though animals seem to be stealing his place,  
Our man will be in the last heat of the race;  
For while radiation, weightlessness and meteorites prevail,  
Some day they'll just be part of an old spaceman's tale;  
Now this may not occur in the next day or two,  
But it is coming, my friend, just as sure as you are you.

By John G. Blethrow

Editor's Note: It's quite evident from the above poem that there is no such thing as a one-talent person in FAA. This poem by Blethrow is from a man in the Aeronautical Center's Medical Research Laboratory.



