BEACON

APRIL 1961

FEDERAL AVIATION AGENCY
Aeronautical Center
OKLAHOMA CITY

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Cover is artists' idea of stormchaser. A P-38, one similar to the one pictured by Bob Tinneman, is used for flights in and through potential tornadic clouds.

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The back of the cover shows a view of Oklahoma City with the FAA C-135 above the city.

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Inside back cover is letter to all employees from the new Administrator, N. E. Halaby.

LOOKING AHEAD

To detail the story behind the cover picture a little: "Operation Roughrider" has the combined help of the Weather Bureau, Air Force, FAA and others. The FAA, however, will take care only of the facet of communication or traffic control between planes and the ground.

"Operation Roughrider" will also use a U-2 reconnaissance plane. Flying from Edwards Air Force Base, the plane will fly across the storm area to gather data.

Next month's "Beacon" will highlight some vacation areas in and around Oklahoma and the cover will salute general aviation.

POINT OF VIEW

PERSONAL THOUGHTS OF APPRECIATION

Since the late 1940's, thousands of international students from more than 40 countries have attended the many courses at the Aeronautical Center. To those of you who have had daily contact with these students, and also to all of you who have handled their records, relayed telephone messages, etc., we would like to pass on these unsolicited personal thoughts of appreciation:

"As a dream that came true, here I am studying, living and enjoying a warm and kindly hospitality. I wish that I did not have to wake up to say 'Good-by'."

"Professionally satisfied, socially pleased, I say 'thank you' to all my instructors from whom I have received the excellent training and to all the families who made my stay wonderful. I am carrying home happy memories of my stay here."

"I could not imagine that I would love Oklahoma so much. I am not going to try to tell all that I think about everything here, because I know that if I used all the words in the world I could still not express my enthusiasm about Oklahoma. But I must say, as long as I am still living in this world, I will never forget all that I have received from Oklahoma. I wish to express my appreciation to all you wonderful folk. Oklahoma, I am leaving you. I want to say 'CHAO TAM BIET'."

"We have so far only spent a few months in this state, but we have already had the wonderful opportunity of acquainting with many Oklahomans and can truly say that we have really enjoyed their gay and friendly atmosphere. Delight and regret! Both feelings hit us simultaneously. It is of great pleasure to graduate, but many weeks of 'UNITY' friendship in our class makes us regret that we are going to disperse to various parts of the United States. Nobody knows when our paths will cross again."

These are representative comments received from all parts of the world. On the other side of the coin, we have statements from our citizens, equally sincere, on the benefits they have received from their association in this person-to-person program.

Afghanistan, Iran, Argentina, Iraq, Brazil, Japan, British Guiana, Korea, Cambodia, Lebanon, Canada, Nicaragua, Ceylon, Pakistan, Chile, Spain, China, Thailand, Colombia, Turkey, Ecuador, U. A. R. – Egypt, Ethiopia, U. A. R. – Syria, Greece, Vietnam, Honduras, Yugoslavia, India.

FAA TO TRAIN MILITARY TRAFFIC CONTROLLERS IN EXPERIMENTAL PROGRAM



Airmen and soldiers get their first look at terminal laboratory. 20 Air Force men and 2 Army controllers are taking 10 weeks of training

The Federal Aviation Agency School started an experimental course in air traffic control operations on April 17th. This controller training will be given to some 20 Air Force traffic controllers in a prototype program. This program is to determine whether the FAA will assume eventually the responsibility for training all military air controllers. The plan is designed to provide a greater degree of standardization in basic air control training of new personnel.

If the plan is successful, according to E. B. "Bud" Olson, FAA School Superintendent, it would bring an average of one thousand military controllers to the Aeronautical Center each year.

To start... this is a 15 week prototype course planned in cooperation with the Department of Defense. It will include 10 weeks of academic and laboratory training in basic instruction at the FAA School and five weeks of radar training at Keesler Air Force Base in Mississippi.

After completion of the course the Air Force and the FAA will jointly evaluate the program to determine costs and the practicality of including military students.

The Aeronautical Center will provide only the instructional facilities for military personnel. Housing, feeding and transportation of the students will be handled by Tinker Air Force Base.

NAMES OF TWO TASK FORCE MEMBERS ANNOUNCED BY FAA ADMINISTRATOR

N. E. Halaby, Administrator of the Federal Aviation Agency, has announced the full membership of two task forces recently established at the direction of President John F. Kennedy to formulate a blueprint for the Nation's aviation developments in the 1960's.

The task force known as "Project Horizon" will study and recommend National Aviation Goals for the period 1961 to 1970.

A technical task force, known as Project Beacon", will study the problem of air traffic management and recommend a system to insure the safe and efficient utilization of the Nation's airspace,

Project Horizon task force is headed by Fred M. Glass, Executive Vice President of the Empire State Building Corporation, New York City. Stanley Gewirts, formerly Vice President-Administration of Western Airlines, Inc., will be vice chairman. The three other members of the task force, each of whom will be in charge of particular phases of the study, will be: Dr. Leslie A. Bryant, Director, Institute of Aviation, University of Illinois; Gerald A. Busch, on leave as Corporate Director of Marketing Planning, Lockheed Aircraft Corporation; and Paul Reiber, until recently Assistant General Counsel of the Air Transport Association.

Mr. Glass is sending letters requesting views on national aviation goals to a spectrum of U. S. aviation and asking for the designation of advisors. Thus, Project Horizon will be supplemented by an advisory group of representatives from all those in a position to make a substantive contribution, the Air Line Pilots Association, the Air Traffic Control Association, the Air Transport Association, the Aircraft Owners and Pilots Association, the Airport Operators Council, the Flight Engineers International Association, the General Aviation Council, and numerous other interested organizations with resources available. The composition of this group and the names of the individual members will be announced when designated. In addition, advice will be sought from a wide range of consultants.

The chairman of the Project Beacon task force is Richard R. Hough, Vice PresidentOperations of the Ohio Bell Telephone Company. Other members of the Project Beacon task force, on leave from their various organizations, will be: Harry B. Combs, President, Combs Aircraft Company; George C. Comstock, Vice President and Deputy Technical Director, Airborne Instruments Laboratory; James F. Digby, a member of the Research Council staff of the Rand Corporation; William Littlewood, Vice President, Equipment Research, American Airlines; Russell C. Newhouse, Director of Missile Systems Development at Bell Telephone Laboratories; and Nathaniel Rochester, Director, Experimental Machines Research, International Business Machines Corporation.

The two task forces, created independently, will work closely together and will submit separate but correlated reports, expected before July 1, 1961.

PROJECT HORIZON

In requesting the development of a statement of national aviation goals under Project Horizon, President Kennedy asked that the task force define "the technical, economic and military objectives of the Federal Government throughout the broad spectrum of aviation, and provide sufficient definiteness to facilitate practicable long-range planning."

As part of its work, the task force headed by Mr. Glass will consider that present status of aviation in the United States and determine where it should be by 1970. It will investigate the development of the military, general aviation and air transport market in the 60's, study the investment necessary during the next decade for airports, and aircraft; and consider the contributions which civil aviation can make to economic growth and military strength.

Project Horizon studies also will be concerned with the efficiency of the system, including ground services, and the relation of aviation to other modes of transportation.

In addition, this task force will study the long range regulatory objectives of the Government with respect to the need for rules, Federal-State relations, rates, route structure, adequacy of service and airline competition.

PROJECT BEACON

The Project Beacon task force has the responsibility of preparing a plan for "an orderly and economic evolution of the present system of air traffic control in pace with continuing advances in technology and national needs."

In his request for the study under Project Beacon, President Kennedy pointed out that the nation must have "a well conceived plan for managing air traffic now and in the future" if the country is to derive maximum benefit from the great potential of aviation and to insure the public welfare.

FAA ADMINISTRATOR NAMES AIRWAY FOR PIONEER PILOT, HONORS PILOT'S WIDOW

N. E. Halaby, Administrator of the Federal Aviation Agency, has honored Calbraith Perry Rodgers, the pilot who, fifty years ago made the first airplane flight across the United States.

Mr. Halaby designated the route of that first crossing of the nation by air as the Calbraith Perry Rodgers Skyway and signed a scroll which was presented to his widow, Mrs. Mabel Rodgers-Wiggin at her home in Bridgeport, Connecticut.

Rodgers, an early aviation enthusiast, took 49 days and 68 stops to make his journey. In passing, Mr. Halaby noted that in 1945 it took him three stops and five and three quarter hours to make the first transcontinental jet flight and the current record is nonstop.

Rodgers began the 4,251 mile trip at Sheepshead Bay, New York September 17, 1911 in a Burgess-Wright biplane christened "The Vin Fiz." He flew from New York down through Ohio, on to Chicago, south through Texas and finally landed November 5, 1911 at Pasadena, California.

In contrast with the elaborate system of airways now maintained by FAA, the first pilot to cross the nation had no radio, no weather reporting, no traffic control, and only sketchy maps to assist him. Rodgers followed the iron compass," or railroad tracks, as most of the early pilots did.

The Burgess-Wright biplane was damaged innumerable times during the trip and only the rudder and drip pan remained from the original aircraft at the end of the historic flight. This aircraft is now in the Smithsonian Air Museum, Washington, D. C.

FAA NAMES SCULL AS CONGRESSIONAL LIAISON OFFICER

Miles Scull, Jr., has been named Congressional Liaison Officer of the Federal Aviation Agency by FAA Administrator Najeeb E. Halaby.

As Congressional Liaison Officer, Mr. Scull's principal duties will be to keep Congress fully and factually informed of FAA policies and programs, including both progress and problems, expediting congressional inquiries and maintaining other necessary liaison services.

FAA TO ASK PILOT VIEWS ON SAFETY IN SERIES OF "AIR-SHARE" MEETINGS

Plans for a series of regional conferences, to be held by the Federal Aviation Agency with pilots and plane owners, have been announced by Najeeb E. Halaby, FAA Administrator.

The first of these Air-Share meetings ("Air your views; share the benefits") was at the Monica Hotel, Santa Monica California, on April 11.

Other conferences were scheduled as follows: April 19, Hotel St. Nicholas, Springfield, Ill.; April 27, Hotel Shelburn, Atlantic City, N. J.; May 2, Hotel Heidelberg, Jackson, Miss. FAA's Regional Offices in Alaska and Hawaii plan to hold meetings in May.

Flying in the late '60s will be the theme. The plan is to anticipate problems of general aviation (private and business flying) and seek practical solutions.

FAA briefings and discussions from the floor will be open to all civil aviation people and any others interested. The meetings will be held by FAA's Bureau of Flight Standards, headed by Oscar Bakke, Director.

"While the safety record of business and commercial flying is good," Mr. Halaby said, "more thought must be given to the needs of the 'Sunday pilots' so that family flying can prosper and expand. "It is FAA's job, partly through education, to help some 360,000 active pilots upgrade their skills partly through improved navigation aids, to help reduce the chance of pilot error; and partly by rule-marking, to develop more exacting safety standards. Willing compliance on the part of all pilots is also necessary.

"We shall adopt no more regulations than are strictly necessary, and shall appeal to the pilots' common-sense so that those we do adopt will be respected.

"Among the problems that may call for rulemaking are: 'cribbing' in airmen exams, which certainly must be checked; greater control by instructors over student pilots now flying ad lib; new classes of roto-craft pilot ratings to insist on the skills needed for this different class of aircraft; special ratings for the new light turbine planes that will be flying; and several other items.

"We believe that open discussion, as planned in the Air-Share meetings, is a good American way to approach such problems before any semi-final rules go out for comment. From the regional conferences, we expect pilots to go home and hold local Air-Share meetings to spread the word throughout the entire pilot group.

"The briefings also will explain new FAA aids such as the flight following service which gives pilots special radioed information on weather and any special hazards ahead from more than 400 flight service stations across the country."

FAA PRINTS GUIDE TO HELP IN PRIVATE PILOT EXAM

A guide for the flight test for a private pilot certificate has been issued by the Federal Aviation Agency, and is available from the Superintendent of Documents, Government Printing Office, Washington 25, D. C., for 10 cents.

Published by the Bureau of Flight Standards of the FAA, the guide is a complete preparation for the maneuvers, routine and emergency operations and flight planning on which the private pilot is examined. The detailed pocketsized, 14-page booklet includes correct information on every possible requirement in the private pilot flight test.

The flight test examiner may be either an FAA inspector or a designated pilot examiner appointed by the FAA.

The examination is in two parts. The first is oral and deals with operational matters, such as information on the performance characteristics of the airplane, approved loading of baggage and fuel, and the pre-flight check of the airplane. Under basic piloting techniques, various normal operations are described, and the applicant learns he may be asked for his reactions in sudden emergencies, simulated by the examiner.

"We want good pilots," Oscar Bakke, Director of the Bureau, said. "The aim of the FAA is to help in qualifying pilots for long and safe flying. Hence, we have prepared this book. If it is used as a guide, no applicant need fail to obtain his private certificate. The simple matter of studying this small booklet can put valuable safety knowledge into the hands of new pilots."

FIRST FAA TESTS OF 3-D RADAR PROVE SUCCESSFUL

The first tests of a new 3-D radar, being developed by the Federal Aviation Agency to provide altitude information in the control of air traffic, have been successful and show definite promise of preventing mid-air collisions. Existing radar now provides distance and direction information to controllers.

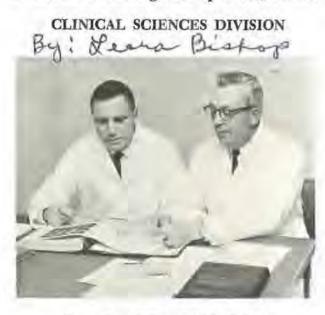
James L. Anast, Director of the FAA Bureau of Research and Development, said the air height surveillance radar (AHSR) tracked a small Tri-Pacer aircraft on its first test and gave altitude information "accurate to within 500 feet at a distance of 20 miles." If the tests continue to be successful, the 3-D radar is scheduled for installation in New York in about 18 months.

The 3-D radar operates from a 100-ton, 165foot high antenna erected at the Bureau's Research and Development Center near Atlantic City, N. J.

In the first test, an FAA plane was flown extensively and the equipment reacted favorably despite the fact that it had not yet been fully adjusted to peak performance. Although the equipment was developed to work in conjunction with automatic data processing and display equipment, the rudimentary tests were restricted to displaying the 3-D radar output on one of two special displays built especially for the system.

The one used in the first tests consisted of a conventional scope supplied with "altitude-filtered" data. The scope was used in conjunction with additional equipment so that only aircraft flying within a selected slice of airspace would be visible.

The scope attachment was actually designed so that a controller may at will make this slice as thick or thin as desired, placing it anywhere in altitude from the ground up to 100,000 feet.



Doctors Samuel Flynn and John R. Little

The Aeronautical Center Clinical Division has two doctors and a registered nurse in attendance. Clinical Sciences Division operates under the aegis of Civil Aeromedical Research Institute.

The functions of this office, located on the first floor of the Headquarters Building, are to serve the FAA employees who sustain injury or illness during duty periods; administer a program for periodic examinations of key personnel which benefits the Agency; control or eliminate occupational health and safety hazards, and provide limited medical care for illnesses and injuries with referral to employee's

physician for further care, counseling on health matters that exist in industrial environment. CSD also serves by increasing or maintaining production through the establishment and maintenance of methods and standards which make it possible for the employee to maintain optimal health in his work environment.

The Employee Health Branch

The man who heads CSD is Doctor John R. Little. A native southerner, Little was born in Alabama, he moved to Oklahoma for his educational years. A graduate of Oklahoma University at Norman where he received his B.S., A.B., and M.D., "Doc" Little took his residency at Mercy Hospital, Oklahoma City. He is a life member of the Medical Staff. He was in private practice in Oklahoma City for many years. Doctor Little received a War Department commendation for four years service with AUS, Medical Corps, during World War II.

The man who heads the Clinical Examinations Branch is Doctor Samuel F. Flynn. The functions of this branch support the Employee Health Branch in giving physical examinations to FAA employees. This enables early detection of employees hypersensitive to certain materials, processes, chemicals, fumes, toxic dusts, vapors, solvents, etc., and to measure the fitness of employees to perform their duties without hazard to themselves or others. This Branch assists in research projects—tests in the low pressure chamber, treadmill, physiological and psychological fitness testing—requiring either general or specialized examinations on subjects under study by the Research Division.

Doctor Flynn is a native Oklahoman. Born in Bethany, hard by Oklahoma City, he obtained his medical degree at the Oklahoma University School of Medicine and interned at St. Joseph's Hospital in Wichita, Kansas. Doctor Flynn practiced Occupational Medicine at Tinker Field for two years prior to his move to the Aeronautical Center this last March.

RN in the Clinicial Sciences Division is Helen Pacific, who has been Industrial Nurse, First Aid Station, for the past three years. The rest of the medical crew are DeWitt Pierce and Lewis Dunlap, Medical Technicians. Secretary is Leora Bishop. Pierce completes X-rays, urinalysis, blood count checks. He has had 18 years hospital experience. Dunlap has had over six years experience as Surgical Technician and a Psychiatric Service Supervisor.

CARI ADDS TO STAFF

Two research specialists have joined the staff of the Civil Aeromedical Research Institute at Norman. They are Everett Earl Phillips, Jr., Chief of the Biodynamics Evaluation Section, Biodynamics Branch and William F. O'Connor, Selection Section of the Phychology Branch.

Phillips has been involved in physical fitness research for some years. He was the senior research assistant at the University of Illinois Physical Fitness Research Laboratory between 1954 and 1958. More recently he taught undergraduate physiology of man, Advanced Measurement and Evaluation, Physiology of Exercise and Statistics at the University of Toledo in Ohio.

Doctor Phillips, at CARI, will be mainly engaged in research on "fitness"; the work capacity of various groups, and the effects of fatigue and aging on the functional reserves of the organism. One of Phillips' pet projects will be the determination of how high tensions, frustrations in daily life—not compensated for by physically responsive action—might increase the susceptibility to arterosclerosis, coronary incidents and other pathological disorders.

Doctor Phillips, by the way, was a member of the research team that assessed the physiological capacities of underwater frogmen at Key West in 1955.

Doctor O'Connor's work will be in psychometrics and personnel measurement and in social psychology and personality. His work, prior to reporting to CARI, included that of research psychologist at the U. S. Naval School of Aviation Medicine, Pensacola, Florida,

O'Connor's wife, incidentally, was a mathematical analyst at the United Aircraft computing laboratory in Hartford, Connecticut. Her time is now taken up with rearing five children.

RECORDERS CHECKED ON KC-135



Part of the crew who praticipated in the KC-135 Flight Test. Left to Right-Fred Nipper, Buford Farnsworth, Jack Ligon, Hugh Wolford, Martin Sheppard, Frank Lawrence, Ed Bray, Marion Williams and Steve Broadman.

Several flight hours were chalked up for our FAA Pilots and Aircarft and Electronics Engineers in the KC-135 High Altitude Jet Aircraft during the month of February.

The flight was made in order to perform an Engineering Flight Test Report. The test purpose was to calibrate the airspeed, altimeter, and flight recorder system. The LAS Waste King and the UDC Flight Data Recorders were used. The record airspeed, altitude, heading, elapsed time, and positive and negative vertical acceleration.

Mr. Bob Ledbetter and Mr. Bell calibrated the ground speeds from the Electronic Lab located in Hangar 9.

At an altitude of 23,000 feet, the cabin was de-pressurized and the occupants in the aircraft took on the appearance of space men in a satelite. The crew donned their crash helmets, equipped with oxygen masks, and operated with the use of oxygen. Everyone seemed quite uncomfortable rigged up in all that gear. After being on oxygen for approximately thirty minutes, the crew was thankful for a pressurized aircraft.

A rapid descent was executed, beginning at 30,000 feet and ending at 10,000 feet, taking approximately one minute to complete.

One of the highlights of the flight was experienced in a push over when the aircraft approached +0 positive G's. Everyone had a feeling of "weightlessness" for approximately twenty seconds.

The flight test was determined to be a success, and the KC-135 was then returned to Tinker Air Force Base, where it is presently based.



Pictured above performing a cockpit check before take off, is Martin Sheppard, Pilot, Frank Lawrence, Pilot, and Jack Ligon, Aircraft Engineer

LINGARD APPOINTED CHIEF OF R & D TEST AND EXPERIMENTAL DIVISION

Colonel Aldro Lingard, Air Force career officer, has been named Chief of the Test and Experimentation Division of the Federal Aviation Agency's Bureau of Research and Development.

Colonel Lingard, who is assigned to FAA on a tour of duty, has been acting chief of his division for nearly eight months. His headquarters will continue to be at the Bureau's Research and Development Center at Atlantic City, N. J.

Colonel Lingard will be responsible for all test and experimentation activities of the FAA Bureau. The Division uses a fleet of about 25 aircraft in its research, ranging from light planes to heavy transports.

He also will be in charge of the elaborate simulation and computation laboratories located at the Center.

FRIENDSHIP FESTIVAL



Photo of Japanese Booth at 1960 International Festival in Oklahoma City.

Big plans are being made in Oklahoma City for a second International Friendship Festival this spring, even bigger and better than the one put on last year! Sponsors and creators of that very successful event were members of the local Women's Civic Clubs Council, comprised largely of career women's clubs, including Altrusa, Business and Professional Women's Club chapters, Pilot, Quota, Soroptimist, Town, and Zonta. The sacrifice of most of their leisure hours for weeks before the fair was more than justified, the sponsors felt, by their achievement of demonstrated good will and friendship.

International students, mostly ICA participants from the FAA Aeronautical Center, others from nearby Fort Sill at Lawton, and several attending universities and colleges in this area, volunteered their services for the festival. They loaned their own precious mementos from home, and borrowed others from friends around the country and from their Embassies. They manned the individual national booths set up in a city square, put on folk dances, presented musical programs, modeled their national costumes at "style shows," took part in a panel discussion which emphasized the many customs shared by different countries. A stream of interested viewers watched the continuous movie travelogue - color films of the 22 countries represented in the Festival.

An impressive feature was the inter-faith service, a one-hour program of readings from Christian, Jewish, and Buddist scriptures, from the Korean and the Hindu Upanishads and Gita. At the opening ceremonies for the Festival, state and local officials participated. And at the end, Oklahoma's own Indians got into the act with the presentation of authentic dances by the Pow Woe Club!

Plan to attend the 1961 International Festival on May 6 and 7. It will be held at the Oklahoma City Art Center at the State Fairgrounds.

INTERNATIONAL LIAISON OFFICER



Pat and Gary Costar

The genuine interest taken by Garrison Costar, FM-972, in visitors from other countries who have come to the Aeronautical Center to study and observe our methods of handling problems relating to Civil Aviation, has developed into a full time job. This came about when he was chosen to fill the position of International Liaison Officer by the Washington Office of International Coordination. He will assume his new duties about May 22, at the Los Angeles Terminal Building in the International Airport where he will greet visitors from various countries upon arrival and make arrangements for them to study or observe in appropriate places in government and private installations where their interests may lie. Local hospitality groups will be notified by Mr. Costar of the Internationals in order that they may participate in the "host family program."

Mr. Costar's background in Aviation started in 1939 when he was an engineer with the Corps of Engineers and was engaged in the design and construction of Airports throughout the Pacific Northwest, major ones being in Portland, Oregon, Spokane, Washington, and Boise, Idaho.

During the War, "Gary" served in the U. S. Naval Construction Battalions. Afterwards he became associated with the FAA in Honolulu, Hawaii where he spent seven years as an Airways Engineer in the Regional Office and traveled throughout the Pacific on various job assignments. Mr. Costar and Pat were married in Honolulu and their daughters, Patricia and Gail, were born there.

In 1952 he transferred to Washington, D. C., where he worked in the Plant Engineering Branch of the Systems Equipment Division. He became Chief of the Structural Materiel Engineering Branch of the Project Materiel Division in 1954 and has headed this organization, which inclundes the Structural Shops, through a seven year growth from 30 to 170 personnel. (The men from this organization planned a surprise dinner recently for Mr. Costar and, with approximately 200 in attendance, many fine tributes were paid as they presented him with a scroll as a memento of the seven year association. Several expressed appreciation for a "boss who was never too busy to help them with a problem.")

This same kind of patience has been demonstrated on numerous occasions as Mr. Costar has given assistance to Internationals by lending a helping hand whenever possible. An example of his interest in these people is illustrated in the following letter (furnished by one of Mr. Costar's stenos without permission of the boss) addressed to the Chief, Air Traffic Control Tower, FAA, Atlanta, Georgia: "Dear Mr. Faulkner - As I stated in my telephone conversation with you this afternoon, my wife and I have been the host family to Jilani while he was here in Oklahoma City. We became quite fondly attached to him while he was here and it was because of this that I made the personal phone call to you. On another occasion one of our friends from a foreign country encountered a rather unpleasant situation in having gotten into accommodations which cost him considerable more than

his per diem rate and so it was to prevent such a thing recurring that prompted my call. I am sure that you and the fellows in the tower will find Jilani extremely interested in his work and will also find that he is a very likeable and sociable type. We hope that you get to know him as we did while he is in Atlanta. It was interesting to hear that you have had previous experiences with students because many times the students are the first or maybe the only ones at a particular station. It sounds as if you have already organized a hospitality club something similar to what we have here in Oklahoma City. We find it very interesting to meet these people and I am sure you must too according to your comments. The next time I am in Atlanta I will certainly accept your invitation to come and make your acquaintance. - Sincerely, Garrison Costar."

In this "age of the shrug" when some say, "So what, it isn't my problem" and go their merry ways, it is heartwarming to meet someone who actually enjoys helping others as Gary Costar does at every opportunity. In regard to personnel matters throughout his organization, he was most eager to offer his assistance whether the problem had to do with illness, death in the family, accident, financial matters, promotion, or whatever the subject - he had the sense of knowing just what to do at the time most needed. He has also put this golden rule into effect in dealing with Internationals and a splash of warmth and kindness will be felt by those who are lucky enough to be greeted by him as they enter this country. Internationality will be forgotten when the individual feels that warmth or human spirit such as Mr. Costar possesses. His new work will only be a wider scope of practice - an exhilarating experience with efforts applied toward a more meaningful end - "the brotherhood of world aviation.

OPERATIONS ALERT — 1961 (OPAL — 61)

Wednesday, April 26, 1961, will mark the beginning of another annual National emergency exercise. The Federal Government, through the Office of Civil and Defense Mobilization (OCDM) simulates a number of emergency conditions culminating in a hypothetical attack upon the United States. The purpose

of these exercises is to permit all levels of government, the various federal agencies and individuals to exercise existing emergency plans and to consider the need for additional plans.

This years exercise will again be characterized by CONELRAD (640-1240 KC) broadcasts by the President, state and local authorities. All standard radio and TV broadcasts will cease during the period 3:00 – 3:30 p.m., Friday, April 28, 1961 except the CONELRAD broadcasts. Management at the Center is considering means by which all employees may listen to this broadcast. Families at home should plan to listen over their home radios.

OPAL - 61 will begin with announcements of increased international tensions and incidents. During this period, a cold factual review of the actual state of preparedness should be made. What steps would be taken, what plans would be put in effect if the critical

situation were right now.

Then, on Friday, April 28, 1961, at some time following the CONELRAD announcements, OCDM will disseminate attack information nationally. It is expected that some 250 nuclear detonations will be simulated throughout the nation. Local plans will be implemented. Damage and casualties will be estimated. Then on Saturday, April 29, 1961, OCDM from many local reports will estimate the total impact of the attack upon the nation.

OCDM estimated in last year's exercise that there were some 80,000,000 casualities. Almost one-half of our nation's population did not survive. This estimate was based on the emergency planning as it exists today. OCDM concluded that the Family Shelter Plan alone could reduce these casualties by 90%.

Selected Center management personnel with their Emergency Readiness Officers will participate in OPAL – 61. We are not yet ready to exercise Center-wide emergency actions, however, this may be expected in future Operations Alerts.

You can best participate in OPAL -61 by considering the state of preparedness of your family group. Also, you should plan to participate with others in reviewing the emergency plans of your community. OPAL -61 is designed and executed for the sole purpose of stimulating an increased awareness for the purpose of developing plans which will result in national and individual survival.



Pictured above: Elias Karayannides, Athens, Greece; Michael Anbar, Beirut, Lebannon; and Enar B. Olson, Superintendent, Federal Aviation Agency School.

This picture was made in Mr. Olson's office at the time of Messrs. Karayannides and Anbar's visit to the Aeronautical Center the week of February 27 — March 3. These men were to learn as much as they could about the general operations and training carried on at the School.

Mr. Karayannides is responsible for the control of the Athens Airport air traffic and approaches under instrument flying rules.

Mr. Anbar made his record visit to the Aeronautical Center this trip. In 1952 he was a member of the International Air Traffic Control Class here. He is assistant Chief of Telecommunications Service, Beirut International Airport.

EDITORS NOTE: The editor of the Beacon felt the following story by Bill Berkley, an instructor in the FAA School, was well worth reprinting. It appeared in a slightly longer form in the ATC Publication "Journal of Air Traffic Control."

HOW IT BEGAN

A chronicle of aviation events leading to the development of the Air Traffic Control System.

Man began flying thousands of years ago, if you believe the tall tales found in mythology. Daedalus and his son Icarus escaped from Crete with wings Daedalus built of feathers and wax for each of them. As they flew over their prison walls Daedalus warned Icarus not to fly too high because the sun would melt their wings. But youth was wild in those days and Icarus maintained steady climbing power. Passing through his service ceiling he faintly heard from below his father's pleas to level off. Unheeding, Icarus continued climbing. The adiabatic lapse rate hadn't been invented yet, the sun did melt Icarus' wings and he crashed into the sea. Although griefstricken, Daedalus continued on all the way to Sicily, which says a great deal for his pectoral muscles, making a perfect two-point landing in the king's courtyard.

In other parts of the world, particularly in China, a great deal of flying was going on. Chinese Emperor Shun, in 2200 B.C., was the first man in that part of the world to fly. He used a dragon's countenance. A dedicated aviation pioneer, he was also the first to make a successful parachute jump, using a dragon's work clothes.

In India, a gent named Pushan ran a successful aerial messenger service using a pair of goats and won the title, "Best of Air Pilots." Pushan's business boomed because he was the first to use multiple, independent power units and, with reliable single-goat performance, was able to maintain dependable schedules.

Pushan's success notwithstanding, animals weren't very popular with early aviators. The operating costs of even a standard dragon were such that only the very wealthy could afford them, and smaller animals, such as horses and goats, were suitable only for short hauls. Feathers, though not considered very reliable,

were much preferred because they were inexpensive. Anyone who owned one hen and two roosters had aircraft parts lying all over the place.

King Bladud of England was one enthusiast who, like Daedalus, had great faith in bird feathers for long-range operations. Late for a date one day in 852 B.C., he dusted off his feathers and attempted the first cross-country flight in England. He should have left the driving to the greyhounds because he, like Icarus, became a statistic.

In Spain, Abul Qasim Abbas Ibn Firnas fared somewhat better. The year was now 875 A.D., so obviously some progress could be expected. Using feathers for motivation, Senor Firnas made a successful cross-country flight but had trouble landing, incurring minor rump injuries. Picking himself up he was heard to say, "Back to the drawing board," where he began work on the tail skid, having been the first to feel the need for such a device.

The mythology of flight, with all its absurdities, does indicate that probably man always had the wish to fly. Surely the timeless dreams of poet and balladeer provided great inspiration to those who attacked the problem of flight more scientifically.

Events of aeronautical significance go back at least to 150 B.C., when Hero first demonstrated the principle of jet propulsion. In the 13th century Roger Beacon speculated on the practicability of flight, but men continued to imitate birds at least into the 16th century, when John Damian tried to cross the English Channel powered by hen feathers. Apparently he got into the air, because he broke his legs in landing. Preceding the misguided Damian flight by a decade, Leonardo da Vinci began work on the design of a mechanically driven aircraft, after having originated the parachute and the rotating wing. Da Vinci's helicopter is credited by many authorities as being the forerunner of the modern propeller.

In 1586, a legal decision was rendered in England which, if not reversed by a later generation, would have prevented ATC from coming into existence. In a lawsuit (Bury vs. Pope) the court declared that "Whose is the soil, his it is from the heavens to the depths of the earth." That maxim is reputed to date back to the reign of Edward I (1239-1307); and no

less a personage than Blackstone, in his Commentaries, upholds the precept. The battle over ownership of the airspace was a long and interesting one, and wasn't decided in this country until 1926.

Man finally achieved his centuries-old dream of flight in 1783. In June of that year, Joseph and Etienne Montgolfier, French experimenters, constructed a balloon that reached 6,000 feet of altitude. No passengers were carried on that first flight. (A century earlier, Francesco de Lana had pointed the way when he began experiments with a "vacuum balloon," but as he reached the threshold of success de Lana discontinued further work because he felt that man's attempt to fly was an affront to his Creator.)

In September of 1783, the Montgolfier brothers released another balloon, this time before a large audience, including royalty. Carried in a small basket below the large bag were three small farm animals. That flight, too, was successful. Later that year a condemned prisoner was selected to be the first human air passenger, but a French nobleman, Pilatre de Rosier, intervened. De Rosier was sure that a man could survive flight in a balloon, and he felt the honor belonged to a nobleman rather than to a criminal. On October 15, 1783 de Rosier ascended over Paris in a "Montgolfiere" and became the first human to achieve flight.

De Rosier was only temporarily correct about the safety of flight. On June 15, 1785, in an attempt to fly to England, his balloon exploded and de Rosier, the first airman, also became the first aviation fatality.

It wasn't long after the first balloon flight that men began practical experiments with powered flight. Sir George Cayley, a British scientist, designed a flying machine at the turn of the nineteenth century which might have flown if it had been equipped with the proper power plant. Knowing that steam engines were inadequate, Cayley tried to build an internal combustion engine, but chemistry hadn't yet developed the necessary petroleum fuels, and Sir George's name was added to a growing list of dreamers who tried to fly but couldn't. Cayley made his contributions, however. He was the first to recognize the advantages of streamlining, and he pointed out that airframe and engine development were interdependent problems.

In France, in 1819, an event occurred that presaged regulation over airspace. The Prefect of the Seine in that year drew up what might be called the first civil air regulations, which prohibited "the flight of montgolfieres" (balloons), "except that they be equipped with parachutes," and forbade "ascents until after the harvest time."

In this country the first event which has any connection with the development of an air traffic control system, although quite remote, occurred in 1835. It must be remembered that ATC, at least the IFR side of it, came into existence to fulfill the needs of commercial aviation and, in fact, was created by the air carriers themselves. On July 4, 1835, Richard Clayton made an unofficial balloon flight from Cincinnati carrying air mail.

The Post Office Department, however, prefers to consider 1859 as the year of its initial entry into aviation, and recently celebrated the fact with the release of a commemorative stamp. On July 1, 1859, John Wise and John LaMountain departed St. Louis with a sack of mail destined for N. Y. Wise was an exponent of the "westwind thory" and he and LaMountain had formed the Trans-Atlantic Balloon Company earlier that year, and optimistic venture if ever there was one. Their flight to New York was not completed. They ran into a storm over Lake Ontario and barely escaped with their lives. But the mail had been carried by air a distance of 809 miles, a record that was to stand until 1916.

The next month, on August 17, Wise departed from Lafayette, Indiana, with what is believed to be the first officially sanctioned air mail flight in this country. Unfortunately, there was very little wind that day. After milling around for several hours, Wise dropped the mail near Crawfordsville, about 30 miles away, and the mail continued to its destination on the surface.

It's unfortunate that the Post Office has never been given the credit it deserves for its destination on the surface.

It's unfortunate that the Post Office has never been given the credit it deserves for its pioneering ventures. The Post Office was the first organization of any kind to foresee the value of the airplane as a means of commercial transportation. The Kelly Air Mail Act of 1925 began the Post Office Department's retreat

from aviation development, but as recently as last year, when the Department sponsored air mail transport by missile, the postmen were able to contribute to the continuing development of the air transportation industry. If the day ever arrives when matter is "transported" by de-atomizing it at the point of departure, sending it on radio waves, and reassembling it at destination, I feel sure that the Post Office Department will have had a hand in the project.

Although balloons were the first vehicles to achieve flight, their subordination to the whims of the wind made them extremely unrealiable transport craft. In 1852 Henri Giffard made a controlled flight from Paris, France to Trappe, a distance of 17 miles, flying a steam-driven airship, but his efforts at controlled flight were inconclusive. John Stringfellow built the first heavier-than-air machine that could actually fly. It was a steam-driven model airplane, and in 1848 it flew about 40 yards. Stringfellow never succeeded in building an aircraft capable of carrying a man. Airframe design was then a half century in advance of engine development.

Steam engines lacked the low weight-tohorsepower ratio which was needed to get a manned aircraft into the air. The internal combustion engine was invented in 1860 by Etienne Lenoir, a Frenchman, and actually marketed. It was this event which ultimately enabled the Wright brothers to fly.

On December 8, 1903, Dr. Samuel Pierpont Langley, eminent Secretary of the Smithsonian Institution, proved—to the satisfaction of the world, if not to himself—that man cannot fly. Nine days later, Orville Wright, an unknown bicycle maker, became the first man in history to lift himself from earth with power of his own making.

Toward the close of the 19th century, when it was becoming clear that man might succeed in his quest for powered flight, a new and totally different problem came into focus. Ownership of the airspace was a question that could not be put off any longer. Already, unregulated balloon flights across international boundaries were causing some disturbance between nations. In 1901, the distinguished French lawyer Fauchille published a memorandum of his views on freedom of the air. In the following year, at the meeting of the In-

stitute of International Law at Brussels, he proposed a policy of international air law based on the premise that the air was free and that no nation should have authority over it except for national defense. This was essentially the concept of freedom of the seas. The analogy between the high seas and the airspace seemed logical, particularly in view of the lack of precedent on this subject; but the question of private ownership of the airspace had to be considered. In ensuing years other nations proffered their views on the airspace question. The German position agreed substantially with the proposal advanced by Fauchille, but Great Britain could not accept it. The British view was that each nation should have sovereignty over its overlying airspace.

In 1909, France proposed the first international aviation conference, to be held in Paris the following year. A few weeks later, Louis Bleriot, a French pilot in an airplane of his own design, became the first pilot to fly the English Channel, with nary a regulation to impede him. In 37 minutes he accomplished what Napoleon had failed to do almost a hundred year earlier.

Bleriot's flight changed the complexion of the conference from one of legal theorizing to the very practical problem of national security. Because of the irreconcilable views of the various participants, the conference adjourned without having come to any firm conclusions regarding ownership of the airspace. It is interesting to note that 'French militarists agreed with the British position on sovereignty, and that British transport authorities favored unrestricted flight over international boundries. The position of the British transport authorities was vindicated in later years when British Imperial Airways underwent so much difficulty in establishing air routes to its colonies in Asia.

World War I ended the problem. With the outbreak of hostilities in 1914, nation after nation in Europe closed its overlying airspace to foreign aircraft. Thus the precedent was set, and, as a result, virtually every piece of aviation legislation written since includes the statement that each nation shall enjoy sovereignty over its superjacent airspace. This was stated in the Pan American Aeronautic Federation in 1916, the Paris Conference of 1919, the Air Commerce Act of 1926, the Havana Convention of 1928, the Civil Aeronautics Act of

1938, the Chicago Conference of 1914 (which led to the establishment of ICAO), and the Federal Aviation Act of 1958.

Today every air traffic controller knows that the problem of regulation of airspace is still with us, although today the problem is a procedural one, rather than a legal one. Nevertheless, if nations could not claim their overlying airspace, controllers would have no authority. Because of national sovereignty of airspace, today's air traffic controller, particularly the air route man, is custodian over more Federal real estate than probably any other group of people.

Air traffic control has a most serious obligation regarding use of the airspace, bacause it is a natural resource which cannot be enlarged. Timber can be grown, and dams can be built to increase the nation's water supply. Arid soil can be improved; but there is just so much airspace — and the air traffic controller has been given the obligation of putting it to proper use. Viewed in this light, it's a rather challenging responsibility.

In the year 1911 an event took place which presaged important future aviation developments. At an air meet on Long Island, under the sponsorship of the Post Office Department, Earle Ovington carried mail in an airplane. It was little more than a stunt, however, because the distance covered was under ten miles. Ovington made daily flights between August 23 and October 2, flying a Bleriot monoplane.

The beginning of the modern era of air transportation came in 1918, a few months before the end of the war. Again the Post Office Department led the way: on May 15, 1918, it inaugurated scheduled air mail service between New York and Washington, with a stop at Philadelphia. Army pilots and planes were used at first, giving way to Post Office crews and equipment on August 12, 1918. The De-Havilland 4, a British - designed observation plane, was the principal airplane used. It was a typical aircraft of its day - a fabric covered biplane with two open cockpits, and was powered by a huge water-cooled twelve cylinder Liberty engine. Even with the front cockpit converted into a mail compartment, the DH-4 was a poor mail plane, but it had one redeeming virtue: it was plentiful; there were many hundred surplus DH-4's available at the end of the war, many of them unflown.

The Air Mail Service was a shoestring operation, and an unlimited supply of aircraft helped keep the service going, for the Post Office used plenty of airplanes. Of the original 40 air mail pilots, 31 lost their lives flying the mail. Operations were confined to contact flight in daylight hours. When a pilot ran out of daylight or visibility he generally took that one long

step to the ground.

With only a pittance from a reluctant Congress, but with bountiful determination, the Air Mail Service grew. On May 15, 1919, one year after regular service was inaugurated, the Department opened the route between Chicago and Cleveland. On July 1, 1919, Chicago and New York were joined. Then the Department set out to conquer the West. By September, 1920, the air mail route extended to San Francisco.

That same year radiotelegraph stations were installed at Washington, Omaha, Elko (Nevada), and Oakland for relaying weather information along the transcontinental mail route. Here we see the beginning of the Federal Airways System.

These were major achievements. In 1920 the automobile had hardly won acceptance, yet the Post Office Department was operating a transcontinental air mail service, complete with a communications network and a string of emergency landing fields.

But Congress was not impressed. It regarded the air mail operation as costly and uncertain, and predicted that it would never achieve widespread use. The airplane was considered valueless as a commercial vehicle. Only a small band of flying postmen foresaw today's globegirdling air transport stytem, and in 1921, when a new Administration arrived in Washington, the handwriting on the wall became large and legible: the air mail "experiment" was to come to an end.

By this time, however, the Post Office Department was dedicated to the airplane, and willing to risk a desperate gamble to prove its worth. The postmen knew that they must act before Congress did. They decided to schedule a coast-to-coast, round-the-clock mail flight—something they had not previously attempted. It was mid-winter, but they did not

want to waste time, for they knew that the future of the air mail hung on the feat they planned.

Two DH-4s took off from New York at dawn on February 21, 1921, hoping to reach San Francisco. When dawn reached the other side of the country two other DeHavillands rose into the wintry sky with mail for the East Coast. One of the westbound flights had a mechanical failure shortly after takeoff and made an emergency landing not far from New York. The other westbound reached Chicago, but was forced to cancel out there, because of heavy snow. Meanwhile, one of the eastbound aircraft crashed in Nevada, and the pilot was killed.

This left but one aircraft in the air. Pilot relays, pony express style, were effected at Reno and Cheyenne. It was dark when the DH-4 landed at North Platte, Nebraska, for fuel and a change of pilots. A broken tail skid delayed takeoff more than two hours. At 10:44 p.m., Jack Knight took off and pointed east on what might well be the most important flight in history of commercial aviation. Knight was an experienced man on the North Platte-Omaha leg, and to him had fallen the honor of beginning the night portion of the flight. But he got more than he bargained for.

Aided by bonfires lighted by public-spirited citizens along the route, Knight made Omaha at 1:15 a.m. without mishap, glad to turn over the reins to the next relay pilot. The ground crew let him thaw out a little before giving him the news: there was no relief pilot. The cancellation of the westbound flight left a gap across the midsection of the country. Ahead lay more snow, raw winds, and five hours of darkness — and all of it over unfamiliar territory. A final mug of coffee, a Rand McNally road map thrust into his mittened hand, and he took off into the snow.

He found Des Moines, but heavy snow prevented a landing, so he continued east into the blast of an Iowa blizzard. Arriving over Iowa City he gunned his engine until the airport watchman awakened and lighted an oil drum at the edge of the field. Knight taxied up to the hangar with barely enough fuel to fill a cigarette lighter. Refueled, he took off again, and continued eastward into a gray dawn, arriving at Maywood Field, Chicago, at 8:40 a.m. Refuled and repiloted, the DeHavilland was

flown to Cleveland for another relay, and from there continued on to New York. News of Knight's feat preceded the aircraft across the Alleghenies on that February 22, and a holiday throng awaited the mail plane when it touched down at Hazelhurst Field, Long Island, 33 hours and 20 minutes after leaving San Francisco.

With the public's imagination fired, Congress had a change of heart and extended the Post Office Department's lease. But night flying did not become common, even after Knight epochal flight, until 1923, when the Post Office Department placed the first lighted airway in operation, between Cheyenne and Chicago.

Meanwhile, pilots were beginning to experiment with blind flying. The worst stretch of the transcontinental route was over the Allegheny Mountains in Pennsylvania, which became known as "the Graveyard." At that time, pilots generally fell into two categories - those who flew on top, and those who dodged obstacles underneath. There were almost as many individual systems as there were pilots, some of them bizarre, if not ingenious, such as the on-top pilot who used to light a big cigar upon departure from Bellefonte, then climb on top. When the cigar was smoked down to two inches, it was time to let down. Presumably the wind effect on the cigar made it more reliable than a clock.

By 1925 the Post Office Department had proved its case: the airplane had commercial potential. Businessmen were interested, and a new industry was a-borning. The Kelly Air Mail Act of 1925, which empowered the Postmaster General to let contracts to private operators, triggered the expansion. On October 7, 1925, five air mail contracts were signed. A few days later CAM (Contract Air Mail) 6 and CAM 7 were released. Winner of these contracts was Henry Ford, an avid aviation fan, who was then producing a radical allmetal airplane with cantilever wing, originally designed as a single-engine aircraft by William Stout, but later given two additional engines. Ford was operating his own private airlines, flying automobile parts from his plant in Dearborn to Chicago and Cleveland, months before he won his air mail contracts. This early experience gave him the jump on his competitors

and on February 15, 1926 Ford carried the first domestic air mail under private contract. (Edward Hubbard and William Boeing, the airplane manufacturer, had a foreign contract in 1920 to carry mail between Seattle and Victoria, B. C.).

Right from the start, Ford Air Transport maintained reliable schedules. Eugene Donavan, a Ford engineer, must be considered when viewing this record, for it was he who designed an ingenious radio navigational transmitter to put tracks in the sky. The Bureau of Standards later obtained approval from Ford to test his radio range station to see if it could be used nationally, and in a few short years radio range signals blanketed the country.

While the Post Office Department released air mail contracts all over the country, it held onto the Main Line, or Columbia Route, until sufficient experience could be gained by private operators. And as the Post Office Department released new mail routes, the Department of Commerce installed airways aids, and maintained and operated them.

Close on the heels of the Kelly Air Mail Act came the Air Commerce Act of 1926, cornerstone of aviation legislation in this country. Its purpose was "to encourage and regulate the use of aircraft in commerce and for other purposes." The Act did not create new offices in the government. It charged the Bureau of Standards with research and development of air navigation aids; the Coast & Geodetic Survey was responsible for air-mapping the United States; and the Lighthouse Bureau of the Department of Commerce was given responsibility for establishing and maintaining airways facilities.

The Bureau of Standards installed radio navigational transmitting stations at Bellefonte, Pennsylvania, and at College Park, Maryland, in 1927. These transmitters were an adaptation of the Ford Motor Company's transmitter, and from this small beginning today's vast network of aerial highways has grown. By 1929 the radio range station, as it came to be known, was in operation at nine locations in different parts of the country. It was in September of that year that Jimmy Doolittle made the first blind takeoff and landing, navigating by radio range signals.

The following year non-directional homing beacons were introduced into the burgeoning radio navigational system. The radio range station became the mainstay of the airways network, however, because it produced four distinct tracks in the sky.

The Weather Bureau, which was under the Department of Agriculture, began serving the aeronautical public in 1929 with weather information which filled the peculiar needs of the aviation industry. Weather Bureau airport stations sprang up in all parts of the country, and in 1938, because of its increasing importance to aviation, the Weather Bureau was placed under jurisdiction of the Department of Commerce.

Commercial aviation came of age in the early thirties. Larger aircraft appeared, and the air passsenger, once scorned in favor of uncomplaining mail sacks, became the object of an intensive sales program. Airways mileages increased; airline schedules became more reliable.

Then, in 1935, a most bizarre and frightening situation came to light. By its very success, air transport reached the threshold of its own destruction. The airways had become overcrowded. No one had ever dreamed of such a thing, just as today few can accept the thought that space vehicles may one day need separation from each other.

The airways structure, navigation aids and other aviation services had been implemented with no thought to their use as an integrated system of air traffic control. It became necessary, therefore, to base a system of traffic control upon a navigation system already in operation.

The airlines serving Newark, New Jersey, were the first to become aware of the collision problem. In November of 1935 they requested the Bureau of Air Commerce to operate a system of air traffic separation.

It's a curious fact of aviation history that private industry more than once has gone to the Federal Government requesting controls. The Bureau of Air Commerce accepted the recommendations of the air carrier companies, but suggested that the air carriers themselves set up their own traffic control system until the Bureau could get the necessary legislation passed that would enable the Bureau to operate the system.

On December 1, 1935 the first system of IFR traffic control established anywhere began operating in Newark. Four months later the air-

lines opened another traffic control center at Chicago, and, in June of 1936, a third center was opened at Cleveland.

In July, 1936, the Bureau of Air Commerce took over operation of the three airways traffic control centers, and began an immediate expansion of the service. In its first year of operation the Bureau opened additional centers at Pittsburgh, Detroit, Washington, Burbank and Oakland.

The ATC system has been in a state of continuous growth ever since. And who started it all? The postman, that's who.

HOW TO SEE

The Five Steps in Expert Seeing:

1. Aim High in Steering.

Aim your car, but not like a firearm, aim to be safe and not to hit. In aiming high you will check not just the traffic immediately in front of you. But split second checks on all traffic to your right, left and as far as possible to your front, then plan your maneuver of your vehicle according to the dictates of traffic observed ahead in advance.

2. Get the Big Picture.

By constantly checking to left, right, the rear-view mirror and to your front, it is possible to keep your vehicle in its proper place and out of danger.

3. Keep Your Eyes Moving.

By keeping your eyes moving you can aim your car, get the big picture and help yourself avoid highway hypnosis, which is a deadly state to get into.

4. Leave Yourself An Out.

In keeping with the big picture and your eyes moving you know your situation at all times and can very easily provide yourself with an out in practically any situation that arises.

5. Make Sure They See You.

In early morning and during twilight hours, turn your headlights on, not just your parking lights. This gives the opposing driver(s) a chance to recognize your vehicle on the road and provide a certain amount of protection not given of a vehicle with no lights.

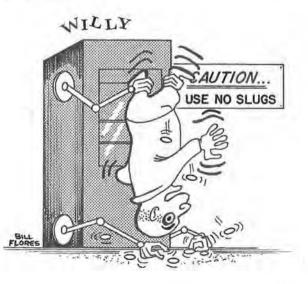
NEWKIRK WINS PHOTOGRAPHIC AWARD



Bob Newkirk, Chief of the Photographic Section at the Aeronautical Center, has just walked off with two more awards for his picture taking capabilities. Newkirk, who shot the color picture that appears on the Southwestern Bell Telephone Company Oklahoma City telephone book, won first place for that picture in the recently held contest of professional Photographers Association of Oklahoma. His black and white shot of a control tower class in operation took first prize in that category.

There were several hundred entries in all divisions of the show. It was held this last month in Oklahoma City.

Newkirk is not a newcomer in the prizewinning field. In 1959 his pictures placed first in the commercial and creative black and white entries.



JET GEMS

BOEING MODEL 727

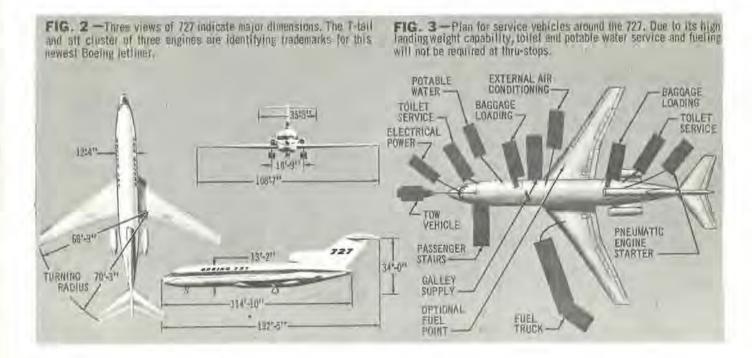


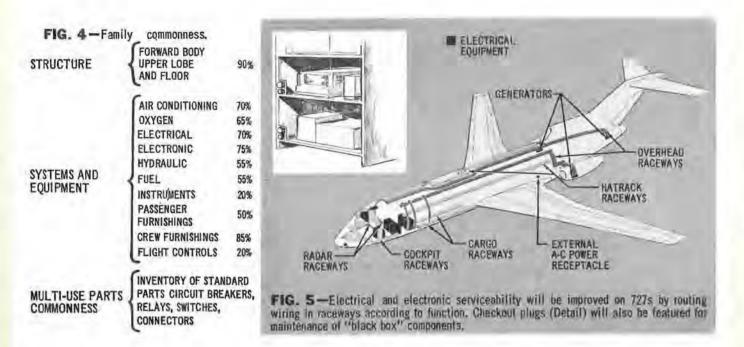
FIG. 1—Short ground times will be a feature of the 727 to enable operators to offer fast service on routes with many short segments. An air-stair at the rear will be basic on 727s. A forward entry may be provided with a similar air-stair as an optional feature.

Though small when compared to 707s and 720s, the 727 will carry 70 to 114 passengers over distances ranging from 150 to 1700 miles. Maximum gross weight is 142,000 pounds. Cabin diameter of the 727 is identical to the 707 and 720 (12'-4'') to provide for profitable six-abreast seating in a combined configuration. Cargo volume totals 850 cubic feet; more than enough for the baggage carried by a capacity load of passengers. When the excess cargo space is available, operators will be able to extend jetliner freight service to smaller cities.

Probably the most unique feature of the 727

is the three-engine cluster around the tail. Three Pratt & Whitney JT8D-1 turbofans, each rated at 14,000 pounds of thrust for take-off, will power the 727. Two of the three engines are mounted in pods at each side of the rear fuselage. The cowl-enclosed third engine is suspended from a beam at the rear of the fuselage with an air duct leading to it from the base of the vertical fin and, therefore, it can virtually be considered a pod-mounted engine. Like the pod-mounted engines in all other Boeing jets, the three aft-mounted power-plants of the 727 are isolated from primary structure of the jetliner.





Service becomes a major function on an airplane which will land and take off as often as the 727. The plan for service equipment around the 727 is shown in Fig. 3. Many services, such as fueling, potable water replenishment, and toilet service, will not be required on thru-stops. With no fueling, as little as 10 minutes will be needed from "doors open-todoors closed," at thru-stops. When refueling is required at major thru-stops, time from doors open-to-doors closed increases to 21 minutes. This time includes galley and potable water servicing as well as fueling. On a turn-around service, less than 45 minutes are required. This short on-the-ground time is no accident. Major design effort was expended to match 727 ground time to the 600-mph air speed available.

Operating cost benefits accrue to the 727 from its family relationship to 707 and 720 experience. A high degree of "commonness" between the 707s, 720s, and 727s has been preserved. The chart in Fig. 4 indicates the parts common to the Boeing jet family. In addition to actual parts interchangeability, flight and

maintenance training requirements are reduced by family similarities. Cockpit arrangement, for example, is basically the same to retain crew familiarity among airplanes. Communications and navigation equipment are common on all Boeing jetliners along with similar instrument presentations. Family familiarity permits dual usage of personnel and equipment at thru and turn-around stations to reduce overall service costs.

Electrical serviceability, to single out one example, is being improved and interference reduced by routing electrical wiring according to function (Fig. 5). Easily accessible plugs for "black boxes" simplify trouble - s h o o t i n g (Fig. 5). Provisions are also being made for checking out the electrical system from the cockpit.

The 727 will carry 7000 gallons of fuel and operate with full payloads from a 5000-foot runway. This will enable the operators to extend the jet service to smaller cities.

The first flight is planned for 1962, with deliveries to the airlines beginning in late 1963.



FEDERAL AVIATION AGENCY

Washington 25, D.C.

OFFICE OF THE ADMINISTRATOR

March 3, 1961

DEAR FELLOW AIRMAN:

Today, in President Kennedy's office, I was sworn in as Administrator of the Federal Aviation Agency. As one of my first steps, I want to express, through this informal letter, my interest in you and our common role in the future of aviation. We should consider two ideas together: first, the FAA is an organization dedicated to serving the aviation needs of the entire Nation and all of its citizens; second, the responsibilities inherent in aviation fall not only upon those of us who serve in government, but upon you as a member of the aviation community. We must work toward law and order as well as for freedom and enjoyment in the air.

I want to assure you that I will do my best to see that the FAA fulfills its obligations to you and to the public as prescribed by the President, the Congress, and the courts. In doing this, I urge you to join me in a cooperative effort of sharing ideas. I will welcome, and every FAA employee should welcome, your suggestions as to how we can better serve the particular phase of aviation in which you are interested. I would like to urge that you give thought to the ways in which you feel we can cooperate. New methods of serving our common cause can and will be discovered. Give us your ideas, not just your gripes. In anticipation of a generous response to this request, it will not be possible to acknowledge personally every letter; however, I assure you that every suggestion and idea will receive thoughtful review and careful consideration.

During the coming weeks I will announce some specific methods through which I hope to see more effective participation by the aviation community in the activities of the FAA. As these develop, I trust that I may count on your vigorous and productive assistance. In turn, I shall do my best to insure that all interested persons are kept fully informed of our plans and our problems.

To paraphrase President Kennedy's statement, I am hopeful that you will be alert to ways in which you can serve aviation, rather than simply the way aviation can serve you. With such an approach, the understanding and cooperation essential to continuing aviation progress will be assured.

N. E. HALABY Administrator

Shown above is the letter mailed out to several hundred thousand airmen in the United States. General aviation pilots all across the nation received this letter.



Liaison officer Darvin Maurer, Gammon and AC Manager Lewis Bayne.

Mr. Albert Gammon, Chief, Civil Aviation Assistance Group, Buenos Aires, Argentina, visited the Aeronautical Center, March 15 and 16. He is on "home leave" following a two-year assignment to the CAAG Mission in Argentina and will return shortly to Buenos Aires for an additional two years.

One of the major projects of the Argentinian Mission has been the development of an Aeronautical Training Center, similar to but on a much smaller scale than the Aeronautical Center at Oklahoma City. This project has proved quite successful as the Center was officially inaugurated last October (1960) and the second group of classes has started this month. The plan is to train between 300 and 400 Argentinian students at this Center during the coming year. The Argentine Aeronautical Training Center is considered by many people to be the finest in its field south of Oklahoma City. Heads of Electronics Training, Air Traffic Control Training and Air/Ground Communications Training in this School are former graduates of the Aeronautical Center, Oklahoma City, as are many of the instructor personnel - all Argentinians. It is planned that the Director of the School will visit the Aeronautical Center sometime during this calendar vear.

Prior to his assignment to Argentina, Mr. Gammon served as Chief of the CAAG Mission in Ankara, Turkey for a period of two years, and prior to that, his work was in the Bureau of Flight Standards, Region 4.



Standing at panel and rear of photograph N. J. Swam and Earl Colburn Burtek, Inc. Engineers. Seated—Left to Right: J. M. Shorter, Supervisory Purchasing Agent; Hope Biggers, Jet Aircraft Specialist; G. S. Nineic, Yugoslav Airlines (visitor Aero. Center); George House, Flight Engineer Specialist; L. E. Shedenhelm, Chief, Aircraft Branch; Bess Simpson, Supervisory Purchasing Agent; Jack W. Ferguson, Acting Chief, Aeronautical Center Purchasing Section; H. A. Cleaton, Contract Administrator, representing Mr. A. P. Hart, Acting Chief, Contract Management Section.

On February 24, 1961, Messrs. Hope Biggers and George House checked the functional and performance characteristics of the Boeing 720 Stabilizer - Elevator Rudder Boost (shown in photograph) and Landing Gear Systems Simulators. Mr. Shedenhelm, coordinator of the project, assisted by the Purchasing and Contract Management representatives, checked the simulators for compliance with the specifications and other requirements of the contract. Mr. Jack Ferguson, who has ably expedited similar purchases of systems simulators urgently needed to support training of Bureau of Flight Standards Inspectors in our Boeing, Convair and Lockheed jet aircraft, arranged for a tour of the Burtek, Inc. plant for the Purchasing and Contract Management representatives to inspect manufacturing, quality control and inspection facilities.

The systems simulators function exactly like the systems in the Boeing, Convair and Lockheed jet aircraft and provide a means of visually demonstrating involved emergency operational procedures, design modifications and maintenance requirements. The systems concepts in these aircraft are entirely new and considerably more complex than those of former piston

powered airline aircraft. Due to the doubling transition to 600 MPH speeds and 40,000-foot operational altitudes of the turbojet powered aircraft, the FAA Supervisors and Inspectors must visualize and thoroughly understand entirely new engineering, flight operations and maintenance requirements. They must also be thorough and capable of adequately monitoring advanced flight crew and maintenance training programs to maintain a high standard of public safety in jet aircraft transportation. The Department of Flight Standards Training of the Federal Aviation Agency School, is setting the pace in advanced training programs for the airline industry through efficient utilization of aircraft, powerplant and systems simulators in the "Big Jet" training programs. Three big jet aircraft, costing approximately 15 million dollars and their crews have been lost in flight training accidents since the inception of the jet transport. Since the FAA is incorporating advanced training aids in its various jet training programs, it apparently feels that a few thousand dollars worth of training aids is a small price to pay to avoid the loss of expensive jet aircraft and the lives of crews and passengers.



The three gentlemen in the picture are men who handle the public affairs aspects of the Federal Aviation Agency in three areas. Left to right, Marshall Benedict of Region Three, headquartered in Kansas City; Gene Kropf, Region Four and from the City of Angels, and your own Beacon Editor, Mark Weaver.

Needless to say, all three were enthusiastic about their magazines. This picture was taken as the three were on their way to Washington and a Public Affairs Conference.



This is the presentation ceremony conducted by Mr. R. W. Pulling, Manager of the Facilities and Materiel Depot.

Receiving awards for suggestions are, left to right: Ernest L. Prater, Aircraft Division; David E. Reid, Materiel Division; Melvin E. Lundberg, Materiel Division; and Ellison A. White, Materiel Division. Also receiving an award was Junior L. Helton, Materiel Division.

FAA SCHOOL SUGGESTIONS AWARDS CEREMONY



Three of the men with smiles received Certificates of Award — and money — on March 16 in recognition of their devotion to duty, initiative, and contributions to the service through their suggestions to improve work procedures. These employees of the Federal Aviation Agency School were Mr. Kenneth J. Shay and Mr. Jack D. Murrell of the Technical Services Division; and Mr. Donald E. Lake of the Department of Air Navigation Facilities Training.

And the smile on the fourth man? Well, he had the pleasure of again recognizing outstanding talent in the staff of the Federal Aviation Agency School—something that would make any Superintendent of the Federal Aviation Agency School smile. His name, incidentally, is Enar B. Olson.

ASSISTANT SUPERINTENDENT, FAA SCHOOL, RECEIVES SUPERIOR ACCOMPLISHMENT AWARD



The smiles exhibited by the three gentlemen above are in consequence of a happy occasion observed on March 16, in the Office of the Superintendent, FAA School, when Mr. James B. Mitchell, Assistant Superintendent (center) was presented with a Superior Accomplishment Award and check in recognition of his outstanding service as Acting Superintendent of the FAA School during the period December 13, 1959 to October 7, 1960. The Chief of the Training Division in Washington, Brig. Gen. Carl Hutton, heartily endorsed the award, commenting that Mr. Mitchell "carried a heavy workload and certainly did it in a superior manner." The Superintendent of the School, Mr. Enar B. Olson, recommended the award and made the presentation.

Left to right are Mr. Enar B. Olson, Mr. J. B. Mitchell and Brig. Gen. Carl I. Hutton.

EXPLANATION OF ECONOMY

The Commerce Department reports that sales and income figures show an easing up at the rate at which business is easing off, which is taken as proof of the government's conten-

tion that there is a slowing up of the slowdown.

In order to clarify the cautious terminology of the experts, it should be noted that a slowing up of the slowdown is not as good as an upturn in the downturn, but it is a good deal better than either a speedup of the slowdown or a deepening of the downturn, and does suggest that the climate is about right for an adjustment to the readjustment.

Turning to unemployment, we find a definite decreases in the rate of the increase, which clearly shows there is a letting up of the letdown.

Of ocurse, if the slowdown should speed up, the decrease in the rate of the increase of unemployment would turn into an increase in the rate of decrease of unemployment. In other words, the deceleration would be accelerated.

But the indicators suggest rather a leveling off, followed by a gentle pickup, rather than a faster pickup, a slowdown of the pickup and finally a levelling off again of the pickup.

EDITORS NOTE: Since any explanation of our economy is usually difficult to understand, it was felt that this one simplified any discussion.



Presentation of the FAA Employees Association-sponsored \$100 U. S. Savings Bond in the 1961 Essay Contest, "Jobs for the Handicapped — A Community Challenge" for the sixth place was made to Miss Judy Means, Ardmore Highschool, March 29. At the presentation, left to right: Dr. Oliver Hodge, State Supt. of Public Instruction; Miss Means; R. A. Wenzel, FAA Employee Association President; and John W. Raley, President of Oklahoma Baptist University, Shawnee, where Miss Means will also receive a two-year scholarship.



Oklahoma Governor J. Howard Edmondson addressed the Governor's Committee on Employment of the Handicapped March 29 in the Blue Room of the State Capitol where he presented the first place awards in the Essay Contest. The winner, Miss Sharon Davis from Oklahoma City's Northwest Classen High School, received a two-year scholarship at the University of Oklahoma, Norman; a \$200 U. S. Savings Bond; a \$250 expense-paid trip to Washington, D. C., and a \$200 savings account. Miss Judy Means, Ardmore High School, won the FAA Employees Association-sponsored \$100 savings bond and a two-year scholarship to Oklahoma Baptist University, Shawnee, for her sixth-place award.

TRAINING CORNER

Occasionally in our off time reading we happen onto an article that makes a strong impression on us. Perhaps it hits a weakness, confirms a belief, or provides us with a new approach or concept. The following article seems to me to be one that might be worthy of some consideration. I hope you will read and think about it.

34 WAYS AN EXECUTIVE CAN KEEP HIS DESK CLEAN

BY WILBERT SHEER

As an executive, your value to your company is measured not by what you have on your desk but by what passes over it. A desk piled high with work does not look impressive; it looks as though you are disorganized—or confused. Some managers try to seem important by hiding behind a busy schedule. It isn't the amount of work you do that counts, but rather the type of work. Because you have to be prepared for action at all times, you cannot afford to be caught with a desk full of miscellaneous duties. The answer lies in learning how to organize your work, your day, your desk.

Some years ago, my first boss passed along bits of wisdom he had acquired in the school of hard knocks. One of his axioms made it clear that "the more important a man becomes, the less work he does." Discussions with successful businessmen and my own observations have shown that there are many good techniques for action. Checking the following 34 suggestions may confirm some of your own ideas and point out a few adoptable methods for getting things done:

LET GEORGE DO IT

1. Divide your work into three parts: (a) tasks your assistants can do, (b) details your secretary can handle, (c) projects you must do yourself. If the third group is much larger than the other two, it pays to analyze this work carefully. Try giving the preliminary work to your best assistants. Give them a chance to grow with such added responsibilities.

2. Select your most promising assistant and work with him until he learns how to handle a good deal of your work. Besides relieving you of numerous projects, you accomplish another purpose: When your chance for advancement comes, you will have trained your replacement to take over.

3. Quit trying to keep your fingers in every pie. Constant checking and "standing over" people makes them nervous and slows them down. They lose confidence in their ability, their initiative is stifled.

4. See that you and your assistants have the best office equipment to work at peak efficiency: Functional desks save lost motion, posture chairs prevent fatigue.

5. Follow the management - by - exception principle. Delegated work should only be brought to your attention if something seems wrong or out of line.

6. Train your subordinates, so that when they present a problem for your consideration they will also submit a possible solution for your final okay.

7. Avoid the "let's call a conference" habit. Continual staff meetings not only interrupt people's work but they achieve little, because your subordinates wait for your viewpoint rather than venturing their own.

8. Once you have delegated jobs to others, don't meddle. Ideally, every office duty should be performed by the lowest-paid individual qualified to handle it. Any other setup is a waste of company money and valuable time.

LET YOUR SECRETARY DO IT

- 1. Your secretary was hired to assist you. A good secretary can save from one-third to one-half of your time—IF you let her. The biggest complaint voiced by secretaries is that their bosses will not give them enough responsibility.
- Authorize your secretary to schedule your appointments, specifying the most convenient times for you to see people.
- Let your secretary take complete charge of the files. Keeping papers on your desk only makes it harder to find a needed paper in a hurry.
- 4. Dictate in the morning. (If you don't use dictating equipment, investigate its time-saving advantages.) This gives your secretary time to transcribe your work neatly and accurately. If you dictate right after you receive your morning mail, you need handle cor-

respondence only once. Short-spurt dictation throughout the day wastes your time and hers.

On simple correspondence, pencil brief notes and let your secretary compose replies for your signature.

6. Set aside a few minutes each morning for your secretary to check instructions and ask questions. This enables her to work without interrupting you later, or having to hold up work in question until you return from lunch

or a meeting.

 Give your secretary a list of people you will see or talk to personally if they call. She can deal with other callers and visitors.

8. A competent secretary usually is good at details. (That's what makes her a secretary rather than a stenographer.) Let her handle as much of your detail work as possible.

Let your secretary prepare rough drafts of reports you must make, for you to edit and

approve.

10. Turn over travel and meeting arrangements to your secretary. Women have a knack for the role of hostess; your secretary will think of many details that make a meeting run smoothly and your conferees comfortable.

WHAT'S LEFT FOR YOU

Schedule and evaluate your own work.
 Get out of the woods to look at the trees occasionally. Too many executives rush around doing forty or fifty different, unrelated things;

2. Arrange your work to dispose of those things that can be handled promptly. The few projects that remain are not hard to cope with then, if the pile of work no longer looks

like a hopeless task to tackle.

Concentrate on the unpleasant or difficult jobs first, get them out of the way while you're fresh. Don't become attached to them

by letting them accumulate.

4. On the other hand, stop wrestling with a problem that, for the moment, has you licked. Put it aside and come back to it when your mood and mind toward it have improved. Be careful, of course, not to postpone the task indefinitely.

 Keep work on top of your desk where it will haunt you and thereby stand a better chance of being done. Burying work in desk drawers keeps it out of sight and away from completion.

6. Put your miscellaneous duties on trial

periodically. You may discover that some of them are merely habit and can no longer be defended as necessary. Habit and routine have an unbelievable power to waste your time and energy.

7. Develop shortcuts wherever possible. For example, writing your reply to a memo at the bottom of the memo page instead of dictating a formal answer saves both time and money.

8. Avoid the time-consuming habit of documenting everything. In some cases, a telephone call may not only be quicker, but actually better than some slower form of communication—especially when you want an immediate answer,

9. Learn to make decisions more quickly. "I'll let you know later" only means that investigating a situation or listening to a problem must be repeated when the decision is given. Decide when the problem is posed, and the job is done.

10. Take time to communicate with others who may be interested or involved with you in a project. A few minutes spent at the start to explain something can save endless hours later by preventing misunderstandings or fuzzy instructions.

 Discourage visitors and interruptions, however, especially when these do not pertain

to your job and you are busy.

12. Try to say "no" to some of the requests made of you. It's flattering to be asked to speak or to serve on a committee where you can share your talents. But these invitations are also cruel demands upon your time and energy, which certainly are not limitless.

13. Concentrate more on your work and less on maintaining the symbols of status—many of them useless. Overconcern about prestige and status hinder you from "keeping your eye on

the ball."

14. Accept responsibility and discharge it with confidence. Don't look for a crutch to lean on—some item of company policy or a decision by a higher-up to hide behind.

15. Finally, don't let the briefcase become a grief case. Develop a balanced way of life. Outside interests and relaxation are needed. Unless you enjoy good health, and have peace of mind, you cannot work well day in and day out and keep your desk cleared for action.

-Taken from American Business Reproduced with special permission.

MEET THE PRESIDENT AND VICE PRESIDENT OF SOUTHWEST TOASTMASTER'S CLUB



President-KEN SALA

It should be noted that the Depot is well represented in the Southwest Toastmaster's Club. Recently during the election of officers in the club, Mr. Ken Sala, Chief of Avionics Branch, replaced Mr. Young, Chief of Ground Facilities Requirement Group, as President for the coming year. Mr. Young replaced Mr. Sala as Vice President.

Ken and Ed's group of Toastmasters meet not only for the purpjose of learning how to make a successful speech, but also how to apply the values gained through this association to everyday situations. The ability to affect courteous and effective communication through daily usage of this knowledge is evident in all phases of life.

Ken joined up with the Toastmaster's Club approximately two years ago and has been very active ever since. Last year he served as Vice President, and this year he relinquished that office to Ed. Ken's first and utmost concern about his work here at the Center is to do a good job, and the personnel under his supervision will vouch that he is an outstanding avionics technician. This is evidenced by the high state of morale in the Avionics Branch. In his opinion, a man must be happy with his work before he can put his best foot forward. He is convinced that avionics is a very important factor in the aircraft world.

Éd joined up with the Toastmaster's Club a little over a year ago and it is obvious that he was a good one to be able to fill the office of



Vice President-ED Young

President during his first year. He has a full time job here at the Center which requires that he be responsible for the technical and administrative direction of personnel and activities for his group. His business responsibility requires the application of practical knowledge to initiate and maintain effective work contacts with technical and non-technical personnel in all segments of the Facilities and Materiel Depot. He feels that his experience in the Toastmaster Club has enabled him to be more effective in getting his job done.

Ken and Ed both have the reputation for remaining calm, cool, and collected. As an example, when the workload appears to exceed the number of hours available, programs are coordinated with their personnel to accomplish the work in the most expeditious manner. A touch of the Toastmaster is demonstrated when these two officials are required to give explicit directions to shop personnel and clear cut answers to the many inquiries regarding the technical operation of their respective organizations. They are convinced that in order to be an effective and courteous communicator, one must be able to put his thoughts into words. "All Toastmasters realize", says Ken, "there are times to talk and there are times to listen, but remember this for sure, always be sure that what you say is exactly what you mean." And in conclusion, Ed pointed out that any self-respecting Toastmaster knows when to stop talking.

MATERIEL DIVISION SECRETARIAL MEETING



FRONT ROW, Left to Right: Marie Davis, Suzanne Bayne, Edwina Richison, Gladys Minor, Evelyn Dane, Frances Emanuel, Imogene Smothers, Margaret Murray, Betty James, Daisy Prince, Jimmie McLane, Christine Harwell, Mary Drury, June Spence, Darlene Steele, BACK ROW, Left to Right: Betty Edder, Jane Wharton, Daisy Mitchell, Freida Ditto, Ralph Gamel, W. E. Godfrey, Fredda McVay, Ardyce Kessler, Frances Short, Rex Merilatt, Selmer R. Holte, Don Odvody.

A meeting was held on March 9 with the secretariat and Division and Branch Chiefs of the Materiel Division, F & M Depot, in attendance. Besides covering salient points and clarifying certain phases of Part 1, Agency Practice, much was accomplished toward establishing uniform procedures with the view to expediting the flow of correspondence through Division and Depot channels.

Pictured above with the Division and Branch Chiefs are those loyal souls who, besides accurately translating the hieroglyphics of their own making, have the chore of decoding and translating those marginal notes and interlineations which the boss so frequently scatters through drafted copy; and, above all, assuring that correspondence meets all the established criteria.



WHEREAS, the function of Business, Industry, Government, and Education depend in large measure upon the skills, loyalty and efficiency of Secretaries -The First Lady of American Business; and

WHEREAS, Secretaries are rendering highly competent services in these fields; and

WHEREAS, in recognition of the vital role the members of this profession portray in the life of the nation:

NOW, THEREFORE, I, J. HOWARD EDMONDSON, Governor of the State of Oklahoma, do hereby proclaim the week of April 23 - 29, 1961, as

"SECRETARIES WEEK"

and urge all business men of the community to give serious consideration to National Secretaries week, April 23 - 29 to the betterment of human relations in business.



The above proclamation, in effect for the week of April 23-29, designates "Secretaries Week." It's something designed by the businessmen in the U. S., Canada, Finland, Mexico and Puerto Rico to honor the "First Lady of American Business."

The editor of the Beacon felt this could be a reflection of the Center and the management feeling-Collectively-toward gals in the office. Here's how the average secretary expresses it:

"We do not regard this week as a time for exchanging word-bouquets, or receiving orchids and candy from our bosses. We consider it a week during which we can let our communities and the business world know how proud we are of our profession."

MARDI GRAS KING, QUEEN AND CANDIDATES



Top, left to right: King C. R. Skidmore; finalists Bill Fuzzell and Lloyd Burke; Queen Teresa Pruitt; finalists Ann McQuown and Maureen Johnson. Second Row: Candidates Doris Nichols, Eddith Hester, Julia P. Garner, Jane Fanning, Darlene Lewis and Glendeen

Hollis. There Row: Rosalie Melton, Jean Betts, Barbara Ann Stehr, Jimmie McLane, Chris Harwell and Kay Shaum. Borrom Row: Mary Ann Mullen, Johnafee Peak, Betty Van Sandt, Pat Edwards, Janiria Kay Talley and Nadine Dunham.



Mrs. Tom Collin and Rex P. Merilatt took first prize for costumes at the Mardi Gras dance in the Zebra Room February 24. Floyd Rice and his orchestra provided music for the crowd of 300.



Second prize winners for costumes were Mrs. Rex P. Merilatt and Monroe Ebner.



Judges: Mr. and Mrs, L. N. Bayne, Mr. and Mrs. R. W. Pulling, Mr. and Mrs. E. B. Olson.



King Cecil Skidmore after being crowned by Mrs. Skidmore.



Mrs. Hal Joines and Dr. Bill Hollis took third prize for costumes.



"mployees Association President R. A. Wenzel and Mrs. Wenzel in costume.



M-m-m-ml King Cecil Skidmore and Queen Teresa Prewitt.



Ann and Tom Collin - the Mermaid and King Neptune.



Mr. and Mrs. Hal Joines.



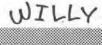
Did you ever lose \$1,000 just in a matter of seconds? Well, that's exactly what happened to Franklin I. Sheffy, Team Captain of the Ten Pins, in the FAA Northside Bowling League. Frank didn't exactly lose this amount, but had he hit the number 4 pin in the 7th frame, he would have been awarded \$1,000 for a perfect 300 game. This all came about when Frank had 6 strikes in a row. Then, in the 7th frame he had a perfect pocket hit, but when the smoke cleared away, there stood the number 4 pin rocking back and forth and refusing to fall. Of course, Frank's second ball clipped off this number 4 pin which gave him a spare in the 7th frame. He continued to rack up 5 more strikes in a row, giving him a score of 279-so close and yet so far. A score of 279 would make anyone shout with glee, but for Frank this called for the Old Bowlers Crying Towel. However, the Manager of the Bowling Club helped dry Frank's tears by presenting with the stubborn number 4 pin, a cigarette lighter, and a membership card to the 250 Bowling Club.

THE OPTIMIST CREED

PROMISE YOURSELF ...

- To be so strong that nothing can disturb your peace of mind.
- To talk health, happiness, and prosperity to every person you meet.
- To make all your friends feel that there is something in them.
- To look at the sunny side of everything and make your optimism come true.
- To think only of the best, to work only for the best, and to expect only the best.
- To be just as enthusiastic about the success of others as you are about your own.
- To forget the mistakes of the past and press on to the greater achievements of the future.
- To wear a cheerful countenance at all times and give every living creature you meet a smile.
- To give so much time to the improvement of yourself that you have no time to criticize others.
- To be too large for worry, too noble for anger, too strong for fear, and too happy to permit the presence of trouble.

- CHRISTIAN D. LARSON



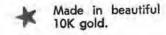


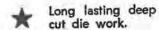


WHY YES...I'M THE CHIEF OF THIS SECTION. HOW'D YOU GUESS ?

ORDER NOW... Your Beautiful FAA RING

Wherever men in your profession gather, at the conference table, in the field or at any gathering whether large or small, each man's ring gains for him the same, quiet recognition that your ring will win for you.





The year you became a qualified F. A. A. member deeply cut in the sides of the ring.

A ring made especially for you for only \$29.00 plus tax.



Address	\$5.00 deposit on order. Balance due on delivery	
Year Finger Size 10K Yellow 10K White (White Gold \$5.00 more)	Stones Synthetic Ruby Blue Spinel Black Onyx Green Tourmaline Amethyst Smooth top stones will be used unless facet top is specified.	

AIR TRAFFIC MANAGEMENT TRAINING GRADUATES

T-302-61-8A

October 10, 1960 thru December 2, 1960

Larry A. Brown	Seattle Center	Veryl A. Rogge	Los Angeles Center
Herman P. Davenport, Jr	Los Angeles Center	Frederick P. Schultz	Chicago Center
William S. Heller	Los Angeles Center	James W. Smythe	Los Angeles Center
John J. Moore	Seattle Center	Robert E. Turner	
David D. Nine	Los Angeles Center	Donnie W. Young	

T-302-61-8B

October 10, 1960 thru December 2, 1960

Nicholas A. Barlotta	New York Center	Nelson R. MooreChicago Center	
Robert E. Besanceney		Lee W. Peterson	
James S. Burt	New York Center	Rudolph R. RoyPittsburgh Cen	
Frank Doris, Jr	Chicago Center	Stephen C. SchwedNew York Cen	ter
Thomas J. Evanchuk	New York Center	Julio A. VegaNew York Cen	ter

T-302-61-9

October 24, 1960 thru December 16, 1960

Leroy T. Bandt	Oakland Center	Kevin B. McAree	Oakland Center
Robert B. Blair		Everett Mill	
Ronald E. Bragg		Alvin D. Nowland	Oakland Center
Fredrick S. Coates		William V. Reavely	Oakland Center
James D. Crane	Oakland Center	Donald W. Rotta	
Ervin A. Czimskey	Oakland Center	Albert L. Smith, Jr.	Cleveland Center
Jackie D. Drum		Merle J. Southworth	Cleveland Center
Joseph R. Fitzpatrick	St. Louis Center	William R. Van Vliet	Atlantic City Center
James F. Gerard		Ronald D. Warrick	Oakland Center
William H. Gibson	Oakland Center	Forrest E. West	Oakland Center
Elroy A. Hackmann	St. Louis Center	Homer E. Wilburn	Denver Center
Robert A. Hefferly		William J. White	Oakland Center
Edwin B, Hyde	El Paso Center		

T-302-61-10A

November 7, 1960 thru December 30, 1960

Charles R, Adams	Washington Center	Donald C. Price	Washington Center
Douglas N. Bell		Gary A. Rose	
Billy M. Bryant		Christo V. Topi	Washington Center
Philip M. Fisher	Washington Center	Thomas W. Wildman	Cleveland Center
Gordon W. Heritage, Jr		Jack L. Woods	Oakland Center
Salvatore F. Mancari			

T-302-61-10B

November 7, 1960 thru December 30, 1960

	Gary R. Haskin	Chicago Center
	Ronald D. Kane	
	Duane J. Keck	Chicago Center
	Wayne Nash	Kansas City Center
Kansas City Center	Robert W. Newberry	Chicago Center
Chicago Center	Carlton L. Schroeder	Kansas City Center
	Saul Trauner	Kansas City Center
	Chicago Center Chicago Center Chicago Center Chicago Center Kansas City Center Chicago Center Chicago Center Chicago Center	Chicago Center Ronald D. Kane Chicago Center Duane J. Keck Chicago Center Wayne Nash Kansas City Center Robert W. Newberry Chicago Center Carlton L. Schroeder

T-302-61-11A

November 21, 1960 thru January 13, 1961

ames L. Cunningham	Kansas City Center	Larry A. H
Larry R. Delaney		Thomas H
Raymond J. Fernandez	Kansas City Center	Roger L. L
ohn G. Gambon		George W.
Douglas D. Glick		Lee Netzle
William A. Gotzon		Donald E.
Norman D. Helms	Kansas City Center	Roy H. W.

Larry A. Hill	Kansas City Center
Thomas Hyman	Washington Center
Roger L. Lease	Chicago Center
George W. Maize	Kansas City Center
Lee Netzler	Chicago Center
Donald E. Stith	Kansas City Center
Roy H. Wubker	Chicago Center

T-302-61-11B

	1-302-0		
	November 21, 1960 th	nru January 13, 1961	
20.00.00 00.20.0		Joseph W. Gilbreth	
Mickey D. Axelsen	Los Angeles Center	Robert F Keller	
Joseph E. Boucher	Los Angeles Center	Paul Kilcullen	Seattle Center
Arthur I. Britton	Los Angeres Conto	Daniel I Meeham	Seattle Center
Raccoa C Buffington	Seatue Center	Donald R. Miller	Los Angeles Center
Toke D Copred	Los Angeles Center	Inmes A Point	Los Angeles Center
Arthur A Deland	Great Palls Ochius	Vonnoth R Shute Sr.	Los Angeles Center
Dobort E Ovennan	Los Angeles Center	Gary E. Wever	Los Angeles Center
Vernon I Endreson	Great Fails Center	Galy Li Horoz illining	The second secon
Gerald L. Fryer	Seattle Center		
		61-12A	
	January 3, 1961 thr	u February 24, 1961	
		Coorge H Mourer	New York Center
Jerome A. Annexstad	Claveland Center	Ronald I. Mentus	
Gordon D. Brown	New York Center	William I Malner Ir	Pittsburgh Center
Richard B. Cox	Distabundh Center	Empoie V Poff	Pittsburgh Center
Burton L. Gifford	Classical Center	TATILIAM A Rumph	Men Tolk Center
Neal R. Grice	Cleveland Center	Arthur O. Wight	New York Center
John I Hoffman, Ir.		Manual 25 11-8	
Francis L. McTavish	Pittsburgh Center		
		-61-12B	
	January 3, 1961 thr	u February 24, 1961	
		Dahart P Mailros	Chicago Center
Samuel E. Brewer	Denver Center	William I. Schuster, II.	Cleveland Center
Wilbur A. Fredrick	Chicago Center	Larry F. Wayment	Denver Center
William P. Kallay	Chicago Center	Larry 1. Truyment	
Kenneth J. LaRosa	Chicago Center		
	T-30	2-61-13	
	January 16, 1961	thru March 10, 1961	Andrew Control Name Page
25 Tel 9/20 Ven 41	St. Lauis Center	George J. LeBoutillier	Washington Center
Bernard J. Bingham, Jr	Westington Conter	Donald D. Morton	
Charles R. Burton	Washington Center	Robert M Rector	St. Louis Center
Jack E. Christensen	Seattle Center	Tames I. Smith	St. Louis Center
Arthur S. Conward	vv asnington Contex	Cone A Stauffer	St. Louis Center
Marion L. Fox	St. Louis Center	Bothany I Thompson	Seattle Center
John P. Gibbs, Jr.	Washington Center	Earl Weissman	St. Louis Center
Konnoth W Coins	washington Center	Little 11 CASSILITIES	
George F. Hildebrandt	St, Louis Genter		
		3-61-2A	
	October 10, 1960 ti	hru December 2, 1960	
22.2.017		Clyde M. Lowdermilk	Albuquerque
John J. Calabro	Mather BAPCON		Tower/ LALCON
Lawrence R. Cuesta, Jr.	Santa Ann Tower	Henry E. Lowry	Fullerton Tower
James J. Dovali	Descale Tower	Tarreson C Mortel	Hochester Co/1
Thomas Downs	Mother BAPCON	Tore R Nova	Fullerton lower
Charles S. Foley	Casta Assa Tower	Delent C Tosto	Fort Ene Tower
Robert K. Gray	Januard Tower	Clen D. Thompson, Ir.	March RAPCON
Dale G. Greenberg		Harold F. Wolfe	Elmira Tower
	T 9/	03-61-3A	
		hru December 16, 1960	
		Table Tr. Marke	Patrick Henry Tower
George K. Bathie	Dravosburg Tower	Marion M. Posey	Patrick Henry Tower Newcastle Tower
John B. Beck		Clarence C. Ransom	Midway Tower
William I Repoit	wheeling rower	Clarence U. Ransom	Worcester CS/T
Forl P Ronarker	Akton-Canton 10wei	Thomas P. Sheedy	Midway Tower
Tohn I Cianci	Reading Tower	Phillip J. Steele	Cincipati Towar
Worbort D Crane	Chicago O Itale Lower	Dennie R. Story	Wheeling CS/T
Thomas E Cuild	Chicago O Hare Tower	Albert K Zebott	White day a
Delevet F McCormick Ir	Chicago O Hare Tower	Frank P. Zito, Jr.	
Robert Margala	Chicago Midway Tower		
ALUDON STATE OF THE STATE OF TH			

T-303-61-4A

November 7, 1960 thru December 30, 1960

Herbert E. Cundiff	Indianapolis Tower	Lyle E. Ostrander	Willow Run Tower
Raymond Edwards	Toledo Tower	Richard E. Pealer	Otis RAPCON
Allan M. Hamamey	Cleveland Tower	Richard L. Prince	Indianapolis Tower
Rollin G. Hedglen	Willow Run Tower	Gerald T. Swigart	Dayton
Robert L. Moore	Willow Run Tower		RAPCON/Tower
		Lightel L. Whitaker, Jr	Indianapolis Tower

T-303-61-5A

November 21, 1960 thru January 13, 1961

Theodore R. Beckloff, Jr	Minor B. Morris Richmond Tower
James M, Black	LaVerne L. Oliver
John CaraccioLaGuardia Tower	Bobbie L. RosenberryOmaha RAPCON/Tower
Julia C. CarrollColumbus Tower	Claude D. Stauffer
Lyle A. GrellOmaha RAPCON/Tower	Bernard L. SwoyerWichita RAPCON/Tower
Kenneth L. MitchellOmaha RAPCON/Tower	Richard E. WigginsWichita RAPCON/Tower

T-303-61-6A

January 16, 1961 thru March 10, 1961

Lawrence W. Bissell	alls Tower	
David W. ClarkeNew Castl		Binghamton CS/T
Waldo B. CummingsBurlington	Tower Robert W. Nichols	Allentown Tower
Thomas J. Flowers	lelphia Tower Ray G. Nordblad	O'Hare Tower
Thomas E. Heller Elmira To		
William E. Henderson, Jr	Tower Glen E. Nygard	Akron-Canton Tower
Charles G. FanninAkron-Can		Buffalo Tower
Lester J. JugenheimerMidway T	Tower Darrell D. Reazin	O'Hare Tower
Edward J. KlenMidway T	Cower Knofel L. Staton	O'Hare Tower
Jack E. MargottaMidway T	Tower William E. Stegall	O'Hare Tower

FACILITIES FLIGHT CHECK PILOT (BASIC) 61-2

Graduation Date: March 31, 1961

Donald I. ChristensenAnchorage, Alaska	George C. KlemkeLos Angeles, California
Paul E. DennisAtlanta, Georgia	Gordon A. KitzmanSt. Paul, Minnesota
Ivan F. EvansKansas City, Missouri	Guy W. LanonOklahoma City, Oklahoma
Harry M. FischerAtlanta, Georgia	A. C. Moldenhauer Bedford, Massachusetts
Benjamin F. HillOklahoma City, Oklahoma	Edwin A. McDonaldOklahoma City, Oklahoma
Joseph E. HobcroftNew York, New York	Henry Olbrych Fort Worth, Texas
Elmer A. KangasSeattle, Washington	Harry J. RossRichmond, Virginia
M. D. KingFort Worth, Texas	Jack W. Van De RietSpokane, Washington

FACILITIES FLIGHT CHECK PILOT (REFRESHER) 61-1

Graduation Date: April 7, 1961

Raymond M. AllensworthOklahoma City, Oklahoma	Joseph B. Duncan Santa Monica, California
Bernard M. BatchelderBattle Creek, Michigan	Harry J. HuskeyAnchorage, Alaska
William T. BoegelBedford, Massachusetts	William B. MadsenOklahoma City, Oklahoma
Warran P Conrad Fort Worth Tayas	

FACILITIES FLIGHT CHECK ELECTRONIC TECHNICIAN (REFRESHER) 61-1

Graduation Date: April 7, 1961

James F. BellAtlanta, Georgia	Paul R. GeraldLos Angeles, California
John C. BiggsSpokane, Washington	

FACILITIES FLIGHT CHECK ELECTRONIC TECHNICIAN

(BASIC) 61-1

Graduation Date: March 17, 1961

James D. CaldwellLos Angeles, California	Albert J. Martin, JrDenver, Colorado
Floyd L. FarrierAnchorage, Alaska	Delwin L. UlstadOklahoma City, Oklahoma
James JoubertSanta Monica, California	Granville B. WestbrookFort Worth, Texas

S-GM-100 General Maintenance Indoctrination Course

February 20 thru March 24

NAME	REGION	STATION
Boal, George M	4.4	Kansas City, Kans.
Brice, George J	3	W. Chicago, Illinois
Diekmann, Henry A	3	St. Louis, Mo.
Donner, George G	1	Teterboro, N. J.
Graether, Clarence S	3	Kansas City, Kans.
Maine, Robert B	3	South Bend, Indiana
McCormick, Alfred R	3	Springfield, Illinois
Pasley, George W	4	Phoenix, Arizona
Pomeroy, Charles L	4	Albuquerque, N. Mex.
Pontarelli, Edward	3	Detroit, Michigan
Roth, Allen B,	2	Charlotte, N. C.
Shelton, Thomas H	2	Atlanta, Georgia
Wright, Charles D	4	Portland, Oregon

S-GM-3(19) Helicopters — Principles, Construction and Maintenance Course March 6 thru March 17

Adams, Lloyd A 3	Grand Rapids, Michigan
Bandy, Claude A 2	San Antonio, Texas
Brown, Norman J 2	Fort Worth, Texas
Dietz, Raymond H 1	Harrisburg, Pennsylvania
Mumma, Charles H 1	Teterboro, New Jersey
Neland, K. E Wash.	Washington, D. C.
Olexis, George1	Bethpage, New York
Oosta, Martin J	Dodge City, Kansas
Ledden, Roy PT-955.1	Aeronautical Center

OBSERVERS

Furusawa,	Hîroshi	Tokyo,	
			Tapan
Nakamura,		Tokyo,	
Takahashi,		en 1	
Yamaguch	i, Tosnic)	2.1

S-EE-2(20) Transport Aircraft Electrical Systems Course

March 6 thru March 17

Brown, Lawrence R	2	Fort Worth, Texas
Butterworth, Alan	4	Santa Monica, Calif.
Gordon, James M.	3	Kansas City, Missouri
Hamill, George F	2	Miami, Florida
Lincoln, Glen L.	4	Burbank, California
Yoshida, Robert I.	6	Honolulu, Hawaii

OBSERVERS

Ponce, Marco E.	Quito,	Ecuador
Murabayashi, Junkichi	Tokyo,	Japan
Okada, Kazuhiko	Osaka,	Japan
Shindo Eizo	Osaka,	Japan

S-GM-6(12) General Aircraft Radio Installation and Maintenance Course

March 13 thru March 24

NAME	REGION	STATION
Gerald, Dock	1	New York, N. Y.
Mann, May V.		Kansas City, Kansas
Pasquale, Alfred A	1	Nordwood, Mass.
Smith, James H	3	Detroit, Michigan
Steigman, Walter B	3	Minneapolis, Minn.
Stringer, Gilbert B	2	Atlanta, Georgia
Or	SERVER	
Davis, J. R.		Knoxville, Tennessee

S-PE-2(2) Powerplant Engineer Aircraft Operations Course

March 20 thru March 31

Wash. Washington, D. C.

Osaka, Japan

Dufour, Thomas C	New York, N. Y.
OBSERVER	RS
Murabayashi, Junkichi Okada Kazuhiko	Tokyo, Japan Osaka, Japan

Shindo, Eizo

S-EE-1(19) Light Aircraft Electrical Systems Course

March 27 thru April 7

Clark, D. J., Sr	3	Indianapolis, Indiana
Egge, Karsten A.	1	Albany, New York
Laakman, R. O.	3	St. Louis, Missouri
Meyenberg, Maurice N	4	San Diego, Calif.
Wolke, Max M	2	Nashville, Tennessee

S-GM-5-(5) Modern Business Aircraft Instrument and Automatic Flight Control Systems Course

April 3 thru April 14

Brown, Joseph E FM	1-946	Aeronautical Center
Carver, Chester N.	3	Springfield Missouri
Davis, Howard E FN	1-946	Aeronautical Center
George, Dale E FN	1-946	Aeronautical Center
Grodson, Anthony G	2	Miami, Florida
Guss, Raymond A	2	Muskegon, Michigan
Moore, Charles	1	Columbus, Ohio

OBSERVER

Nunez. Roberto	Tegucigalpa,	Honduras
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FEDERAL AVIATION AGENCY

Washington 25, D.C.

OFFICE OF
THE ADMINISTRATOR

March 9, 1961

MEMORANDUM FOR ALL FAA EMPLOYEES

It is a pleasure to greet you as I take up my duties as Administrator of the Federal Aviation Agency. I consider it my own good fortune to be able to serve with you in this new Agency. In the days to come, I shall take every opportunity to meet with you personally.

Together we share FAA's difficult mission of promoting safety in aviation, assuring law and order in the air and performing essential functions in support of national defense requirements. This mission carries with it the great satisfaction of knowing that our work is vital to the Nation's welfare.

I am proud of the reputation of the Federal Aviation Agency which you have built with your skill, imagination, enthusiasm, and loyalty. I shall count on this same dedication and enthusiasm. For it is my conviction that the success of our efforts depends upon you -- the people who do the job!

In his State of the Union message, President Kennedy said, "Let every public servant know, whether his post is high or low, that a man's rank and reputation in this Administration will be determined by the size of the job he does..."

I am confident that with this high standard the FAA will be in the first rank of Government services to the Nation.

N. E. HALABY Administrator

